

PERSONALITY JUDGMENT ACCURACY: THE ASSOCIATIONS BETWEEN TIME,
SOCIAL CONTEXT, AND PERSONALITY ON THE ACCURACY OF INTERPERSONAL
JUDGMENTS

by

ROBERT NICK COCHRAN

(Under the Direction of Brian Haas)

ABSTRACT

This research examined the role of information quantity (amount of information), information quality (amount of relevant personality information), and the judge's personality in producing accurate personality judgments. Participants completed the NEO PI-3 to obtain a Big Five personality profile. Personality accuracy data was collected using the TIPI for dyads of unacquainted college students at two time points (3-mins and 45-mins) in 1 of 3 conditions (interpersonal closeness, competition, cooperation). Accuracy was measured using self-other agreement. Results supported the hypotheses that information quantity and quality would be positively associated with accuracy. Results supported the hypothesis that extraversion and agreeableness would be associated with accuracy when making judgments during first impressions (time 1) but not for making judgments after the social interaction (time 2). Overall, results suggest that personality judgment accuracy is dependent on the personality characteristics of the person making the judgment, the length of time the target is known, and the amount of personality relevant information that a situation makes available to the judge.

INDEX WORDS: personality, longitudinal, situational strength, judgment, accuracy

PERSONALITY JUDGMENT ACCURACY: THE ASSOCIATIONS BETWEEN TIME,
SOCIAL CONTEXT, AND PERSONALITY ON THE ACCURACY OF INTERPERSONAL
JUDGMENTS

by

ROBERT NICK COCHRAN

BA, University of North Carolina at Chapel Hill, 2014

A Thesis Submitted to the Graduate Faculty of The University Georgia in Partial Fulfillment of
the Requirements for the Degree

MASTER OF SCIENCE

ATHENS, GEORGIA

2017

© 2017

Robert Nick Cochran

All Rights Reserved

PERSONALITY JUDGMENT ACCURACY: THE ASSOCIATIONS BETWEEN TIME,
SOCIAL CONTEXT, AND PERSONALITY ON THE ACCURACY OF INTERPERSONAL
JUDGMENTS

by

Robert Nick Cochran

Major Professor: Brian W. Haas
Committee: Michelle R. VanDellen
W. Keith Campbell

Electronic Version Approved:

Suzanne Barbour
Dean of the Graduate School
The University of Georgia
May 2017

TABLE OF CONTENTS

CHAPTER	Page
1 INTRODUCTION	1
Measuring Accuracy	2
Effects of Information on Accuracy	3
Effects of Personality on Accuracy.....	6
2 PRESENT STUDY	10
Hypotheses	11
3 METHODS	13
Participants.....	13
Materials	13
Procedures.....	15
4 RESULTS	22
Effects of Information Quantity on Accuracy	22
Effects of Information Quality on Accuracy	22
Effects of Personality on Accuracy.....	23
Audio Recordings	24
5 DISCUSSION	26
Effects of Information Quantity on Accuracy	26
Effects of Information Quality on Accuracy	26

Effects of Personality on Accuracy.....	29
Audio Recordings	33
Limitations and Future Directions	34
Conclusion	36
REFERENCES	39
FIGURES.....	45
APPENDICES	
A Arbitrary Questions Task.....	46
B Interpersonal Questions Task.....	47
C Cooperation Task.....	49
D Competition Task.....	51

CHAPTER 1

INTRODUCTION

Imagine meeting a person for the first time. What are the noticeable characteristics that you recognize about the person? Some of these characteristics are overt and easy to detect. For example, you may notice the person's clothes, facial expressions, and attractiveness but what can you glean about their personality? There is a consensus amongst psychologists that both personality and environment affect how people behave across situations; however, some believe that personality drives behavior while others think that the situation predicts how someone will behave (Epstein, 1979; Funder & Ozer, 1983; Lewin, 1936; Mischel, 1968). This person-situation debate is important when considering how people make judgments of one another.

Accurate judgments depend on the traits of who is being judged (Colvin, 1993), the personality characteristics of who is making the judgments (Vogt & Colvin, 2003), and the situation in which the judgment is being made (Blackman & Funder, 1998). It is currently unclear how the situation and an individual's personality affect the way they make personality judgments of others. The current research investigates how personality and situational factors are associated with how people judge other people's personalities. Specifically, we investigate how information quantity- the amount of information available, information quality- the quality of information available, and the judge's personality- extraversion and agreeableness- are associated with producing accurate personality judgments of others.

Measuring Accuracy

People make personality judgments of others every day. The person who makes the judgment is known as the judge and the person being judged is the target. There are several ways that the accuracy of personality judgment has been measured which include: consensus, realistic accuracy, and self-other agreement. Consensus involves measuring the level of agreement between personality judgments created by two or more people about a target. Similar to stereotypes, many people may agree on another's personality but they could all be wrong; therefore, consensus is a proxy of accuracy because it does not necessarily coincide with the target's true personality (Letzring, Wells, & Funder, 2006).

Realistic accuracy represents the hypothetical construct of the level of agreement between personality judgments and what a target is actually like. An accuracy criterion for each target of judgment is created by using multiple methods of measurement. For example, measurements can be taken from real-life acquaintances, psychological interviews, and the self. The combined criterion measure may be more accurate than a single rating because rating errors are mitigated when multiple ratings are combined (Funder, 1995; Letzring et al., 2006).

Self-other agreement is the level of agreement between judgments made about a person and that person's judgment of him or herself (Ambady, Hallahan, & Rosenthal, 1995; Blackman & Funder, 1998). Self-other agreement is the most commonly used measure for accuracy and, therefore, the method we used to measure personality judgment accuracy in the current study. A person's self-rating is assumed to reflect reality and another person's judgment is accurate to the degree of similarity with the self-rating. Self-other agreement can be directly measured and, because of its normative use, is typically referred to simply as accuracy (Letzring et al., 2006).

Effects of Information on Accuracy

The accuracy of personality judgments differs because of the variable degree of acquaintanceship and personality relevant information available in a situation (Letzring et al., 2006). There are four factors related to judgment accuracy (Funder, 1999; Letzring et al., 2006): good trait (Borkenau & Liebler, 1993b; John & Robins, 1993), good judge (Allport, 1937; Vogt & Colvin, 2003), good target (Colvin, 1993) and good information (Blackman & Funder, 1998; Funder, Kolar, & Blackman, 1995). There are two properties associated with good information pertaining to making accurate judgments: information quantity and information quality (Blackman & Funder, 1998; Letzring et al., 2006). Information quantity is the total amount of information that is available to a judge. Information quality is the degree to which the available information is pertinent to personality (Blackman & Funder, 1998). Each of these properties can affect the accuracy of personality judgments.

Information Quantity

Information quantity assumes that judges who have access to more information about another person will be able to make more accurate judgments of that target. This is referred to as the acquaintanceship effect because as time of acquaintanceship increases, the amount of information about the person increases. Information quantity assumes that having more information about a person, or to know a person longer is equivalent to knowing them better (Letzring et al., 2006). For example, accuracy is higher among people who watch videotaped unstructured interactions between people for 25-30 mins versus 5-10 mins (Blackman & Funder, 1998), for people who are real-life acquaintances versus people who are not (Funder et al., 1995; Letzring et al., 2006), and for people who indicate that they know a target well versus people who do not know the target at all (Paunonen, 1989).

Connelly and Ones (2010) completed a meta-analysis to investigate the self-other agreement accuracy ratings of 44,178 individuals across 263 independent samples and found that increased frequency of interacting with targets improved personality judgment accuracy (Connelly & Ones, 2010). Like the current study, studies that have the same participants involved at each level of acquaintanceship have found increases in self-other agreement at increasing levels of acquaintanceship (Ambady et al., 1995; Borkenau & Liebler, 1993a; Paulhus & Bruce, 1992).

There is clear connection between time and accuracy. Having more time with another person increases the accuracy of personality ratings. In the current study, we manipulated time by measuring accuracy at two time points: after a 3-minute interaction and again after a 45-minute interaction. It is important to note that time is not the only predictor of accuracy. The quality of information available also plays a role in affecting the accuracy of personality ratings.

Information Quality

Generally, when there is more personality relevant information available, the accuracy of personality judgments is expected to be greater (Anderson, 1984). Information quality describes the type of personality relevant information available at a given time (Letzring et al., 2006). The concept of information quality refers to the degree to which personality relevant information is available across different social contexts even when holding information quantity constant. For example, a social context where everybody acts the same according to social norms would produce low-quality information about personality because individual differences in personality would not be revealed. A social context where behavior is free from social norms and allows for uninhibited behavioral expression is a situation that would produce high-quality information because individual differences are more easily revealed as people are behaving in ways that

accurately demonstrate their personalities (Snyder & Ickes, 1985). Anderson (1984) demonstrated that talking about your thoughts and feelings produced higher quality information and was more informative about personality, relative to speaking about hobbies and activities.

A related concept, situational strength, can influence behavior and the expression of one's personality. Snyder and Ickes (1985) differentiate between strong and weak situations; strong situations are those with clear guides for behavior whereas weak situations are those without clear guides for how to behave. An example of a strong situation would be a funeral. There are clear expectations of how a person is supposed to behave at a funeral. The strong social norms associated with a funeral dictate that people wear dark clothing, offer their condolences to the family, and be quiet and respectful. These norms influence everyone to behave in a similar way and decreases the likelihood for personality relevant information to be expressed. If people cannot express their personalities, then others cannot judge them accurately.

On the other hand, an example of a weak situation would be a party. There are still social norms that dictate behavior at a party, but they are much weaker than at a funeral. Attending a party allows people to explore many possible paths of personality expression. A party-goer could dance, sing, drink, and talk or do any combination of these activities. In a weak situation, people are more likely to see individual differences in behavior because they allow people to more freely express their behavior and personalities. Weak situations allow for more behavioral variation, increases the availability of higher quality information, and therefore may result in improved accuracy of personality ratings (Letzring et al., 2006). In the meta-analysis of the effects of time on accuracy, researchers found that time is not the only predictor of accuracy (Connelly & Ones, 2010). The judge's interpersonal intimacy, measured by the extent to how close people were, was also associated with accuracy of personality ratings. Together, this prior

research demonstrates a clear association between social context and accuracy. In the current study, we manipulated information quality by using three different social context conditions: interpersonal closeness, cooperation, and competition.

Effects of Personality on Accuracy

There also exists evidence that the personality of the judge may influence the accuracy of personality judgments. For example, extraversion and agreeableness are two traits related to prosocial behavior and therefore may correspond to the ability to accurately judge people's personalities (Carlo, Okun, Knight, & de Guzman, 2005; Human, Thorson, & Mendes, 2016). In the current study, because of the link with prosociality, we only investigate extraversion and agreeableness as they are the traits most likely to be associated with accuracy. Below we discuss the mixed pattern of prior evidence linking each trait to the ability to make accurate personality judgments.

Extraversion

People high in extraversion tend to be involved in a wide range of activities rather than engaging in-depth in a few activities. High extraversion is associated with an increase in positive affect related to external situations and the tendency towards creating energy from external interactions rather than internally (Laney, 2002). Highly extraverted people enjoy interacting with others, are full of energy, like to talk, and assert themselves in social situations (Olakitan, 2011).

Extraversion has been linked to factors that may allow people to make accurate predictions of other's personality. For example, extraversion is positively associated with emotional intelligence (Atta, 2013). People who are high in extraversion are more likely to better understand the emotions of others. People who are high in emotional intelligence have good

relationships with others and perform well on tasks that require them to read the emotions of other people (Rani, 2015). Extraversion is positively related to a person's accuracy in perceiving their place in their social network (Casciaro, 1998) and is positively associated with empathy, an important social-cognitive construct that allows people to understand the thoughts and behaviors of others (Hekmat, Khajavi, & Mehryar, 1974), which could be an important factor when making interpersonal judgments. These findings suggest that extraversion is positively associated with judgment accuracy; however, some studies have found the opposite effects.

There are several examples of how extraversion is not related to accurate judgments of others. Participant's extraversion is not associated with their ability to accurately judge the personality of another person after reading brief text excerpts written by that person (Hall, Goh, Mast, & Hagedorn, 2015). In fact, participants in the same study who were less dominant were more accurate at making personality judgments. Assertiveness, one facet of extraversion related to dominance, is not associated with increased performance of communication skills (Kuntze, van der Molen, & Born, 2016). Additionally, people high in assertiveness tend to obtain hierarchical power and are inclined to pursue their own goals rather than group goals, are less careful and systematic in how they assess others (Brauer, Chambres, Niedenthal, & Chatard-Pannetier, 2004), and more likely to stereotype others rather than attending to individuating information (Fiske, 1993; Vescio, Snyder, & Butz, 2003). Lastly, judges who were less sociable (lower in extraversion) are more accurate at judging the personalities of others (Ambady et al., 1995). This mixed pattern of results indicates that extraversion may be associated with either improved or reduced personality judgment accuracy.

Agreeableness

Agreeableness is also a trait linked to prosocial behavior and is a social trait that has been related to relationship quality. People high in agreeableness tend to be kind, generous, trusting, and willing to cooperate with others (Rothmann & Coetzer, 2003). There exists a mixed pattern of results on the association between agreeableness and personality judgment accuracy.

Agreeableness is associated with dispositional intelligence, a person's ability to be aware of another's state of mind and mood states, when participants reviewed videotaped segments of individuals responding to employment interview questions and judged the personality of the people being interviewed. Interestingly, agreeableness moderated this effect with stronger associations being observed when people were high in agreeableness (Christiansen, Wolcott-Burnam, Janovics, Burns, & Quirk, 2005). Agreeableness was associated with accuracy after participants watched an unstructured interaction between unacquainted individuals (Letzring, 2008) and has also been associated with empathic accuracy (Ickes, Gesn, & Graham, 2000; Kraus, Côté, & Keltner, 2010) meaning that people who are high in agreeableness are more likely to have higher levels of empathic accuracy which may help them produce more accurate judgments others.

Agreeableness was not associated with accuracy after participants watched brief video segments and rated the targets on extraversion, neuroticism, and masculinity-femininity (Lippa & Dietz, 2000). Agreeableness is not associated with accuracy of personality judgment based on body odor (Sorokowska, Sorokowski, & Szmajke, 2012) and people high in agreeableness tend to perceive others as more agreeable. For example, Wood *et al.* (2010) displayed that people who are agreeable tend to perceive others as having more positive traits, such as, being agreeable even if the target is not. Self-ratings of agreeableness were associated with perceiving others as

conscientious, emotionally stable, open, and agreeable even when the target did not possess these traits (Wood, Harms, & Vazire, 2010). This mixed pattern of results associating agreeableness with personality judgment accuracy lead us to predict that agreeableness will be associated with accuracy but it is currently unclear if this association will either improve or reduce personality judgment accuracy.

CHAPTER 2

PRESENT STUDY

In the current study, we investigate how information quantity, information quality, and the judge's personality affect personality judgment accuracy. To investigate the effect of information quantity on accuracy we collect personality judgments after a 3-min interaction and after a 45-min interaction. To investigate the effect of information quality on accuracy we collect personality judgments in 1 of 3 conditions: interpersonal closeness, cooperation, and competition. These conditions were designed to have different levels of information quality where interpersonal closeness involves the greatest amount of quality information followed by cooperation and then competition. Interpersonal closeness involves the highest information quality of the conditions because it allows for the greatest freedom for personality expression during the interaction. Competition involves lowest information quality and cooperation's information quality is in-between the other two conditions. These differences in information quality manipulated by situational strength allow us to investigate how the situation affects accuracy. To investigate how the judge's personality is associated with accuracy we examine the associations between the judge's extraversion and agreeableness and their accuracy at predicting their partner's personality.

This current study goes beyond previous research in a several ways. First, prior studies have participants make judgments during a relatively unrealistic interaction. For example, many studies involve participants being exposed to videotaped interactions, personality profiles, odors, or writings to make their judgments. In the current study, participants interacted with one another

face-to-face before making personality judgments. This method improved the ecological validity of our results and could have different implications for how judges detect and use information to make judgments. For example, in a real interaction a participant might be concerned with how they are perceived, what they need to say, and how they should act which are not problems for situations where people do not interact in person. This study also goes beyond existing research by combining time and situation in in three different situational conditions. We measure accuracy at two time points allowing us to examine how accuracy is changing over time, and within three conditions to see how each condition affects accuracy. To our knowledge, this is the first study to investigate the combined effects of time, situation, and personality on personality judgment accuracy in a single study.

Hypotheses

In this study, we explore the effects of time, situational context, and the judge's personality on the judgment accuracy of other's personality characteristics. We investigated time by collecting personality judgments after a 3-min condition and again after a 45-min condition. Previous findings indicated that information quantity increases accuracy because the amount of information available in a situation allows for more accurate personality predictions. In line with previous work on the effect of time and acquaintanceship on accuracy we predict that accuracy will increase with the amount of time spent with a partner (Ambady et al., 1995; Blackman & Funder, 1998; Connelly & Ones, 2010; Letzring et al., 2006)

Hypothesis 1. Participants will be more accurate at judging the personality of their partner after the social interaction task (time 2) compared to the first impression task (time 1).

The current study was designed to investigate how accuracy is affected when people interact with one another in situations with different levels of information quality. To study the

effects of the situation on personality accuracy we collected personality judgments from participants in 1 of 3 conditions that differ in the level of information quality. Interpersonal closeness, a weak situation, allowing for more behavioral variation involves high information quality, and therefore higher levels of personality relevant information will be expressed. Cooperation involves medium quality information and competition involves low quality information. Based on prior research on information quality and situational strength we predicted that high quality situations would increase a person's accuracy of their partner from time 1 to time 2 (Letzring et al., 2006; Snyder & Ickes, 1985).

Hypothesis 2. Participants in the interpersonal closeness condition will have the greatest increase in accuracy over time as compared to the cooperation and competition conditions.

Previous research demonstrates that extraversion and agreeableness are traits associated with prosocial behavior, however, there exists a mixed pattern of results on how each trait would be associated with personality judgment accuracy. For this reason, we investigated the associations of extraversion and agreeableness with personality judgment accuracy in an exploratory manner where we predict that the traits will be associated with accuracy but the directionality of the effect is unclear.

Hypothesis 3. Extraversion and Agreeableness will be associated with self-other agreement accuracy at both time points.

CHAPTER 3

METHODS

Participants

Undergraduate students ($N = 300$, 85 males, $M_{age} = 19.47$, $SD_{age} = 1.81$) from the University of Georgia self-selected to participate on the university's research participation system (SONA) in exchange for partial course credit. In groups of two, participants were randomly assigned to 1 of 3 conditions: interpersonal closeness ($N_{groups} = 47$), cooperation ($N_{groups} = 49$), or competition ($N_{groups} = 54$). We completed analyses on our sample to check the efficacy of random assignment. A Pearson Chi-Square test was calculated comparing the frequency of gender and gender composition (M-M, M-F, F-F) between each of the three conditions. There were no significant differences for gender, $\chi^2(2) = .03$, $p = .958$, and gender composition, $\chi^2(4) = 3.58$, $p = .465$. A one-way ANOVA was conducted for age and each Big Five personality trait between conditions. No significant differences were observed between conditions for age $F(2, 297) = 2.20$, $p = .112$ or the Big Five personality traits, neuroticism $F(2, 297) = .00$, $p = .997$, extraversion $F(2, 297) = .09$, $p = .913$, openness to experience $F(2, 297) = .56$, $p = .573$, agreeableness $F(2, 297) = .33$, $p = .720$, conscientiousness $F(2, 297) = 1.32$, $p = .269$.

Materials

Neo Personality Inventory (NEO PI-3). Each participant completed the NEO Personality Inventory-3 (NEO PI-3). The NEO PI-3 measures each of the Big Five personality traits (neuroticism, extraversion, openness, agreeableness, and conscientiousness) as well as the six facets that define each domain (McCrae, Costa, Paul, Martin, 2005). The NEO PI-3 consists of

240 questions about personality. Each item is responded to using a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Each participant completed the NEO PI-3 about themselves during their first session in the lab. We conducted Cronbach's alpha test of reliability on each of the Big Five traits. Each trait had 48 items, neuroticism ($\alpha = .93$), extraversion ($\alpha = .90$), openness to experience ($\alpha = .89$), agreeableness ($\alpha = .90$), and conscientiousness ($\alpha = .93$).

Ten Item Personality Inventory (TIPI). The TIPI is a 10-item brief personality inventory of the Big Five traits. Each item is responded to using a 7-point Likert-type scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). The TIPI was designed to be used when a personality measure is desired in a short amount of time. Prior research indicated that the TIPI reaches adequate levels in terms of convergence with the Big Five measures, test-retest reliability, patterns of predicted external correlates, and convergence between self and observer ratings (Gosling, 2003). In our study, each participant completed the TIPI during the first session about themselves (TIPI self). They also completed the TIPI twice during the second session about their partner: once after the 3-min interaction (TIPI other-one) and again after the 45-min interaction (TIPI other-two).

Demographics Survey. A brief demographics survey was given to each participant where they answered questions about their age and sex.

Arbitrary Questions. The arbitrary questions task was designed to allow participants to interact with one another in a relatively superficial way which provided limited opportunity for personality to be expressed. Participants took turns asking and responding to difficult estimation questions; therefore, the arbitrary questions task involves a strong situation because there is very little possibility for expression of behavior. Example items include "how many toothpicks would

it take to fill the empire state building?” and “how many bacteria are in the average human’s mouth?” (Appendix A). All questions were difficult and the answers were not common knowledge. This task enabled participants to engage in a short 3-minute interaction which we could compare to the longer 45-min interaction later in the study.

Acquaintance Questionnaire. Each participant completed the acquaintance questionnaire at the end of the study, a 2-item inventory that asks, “before today’s activity, have you ever met your partner?” and “if so, how well did you know this person?” This measure provides us with an estimate for how well each participant knew their partner before the study and the extent to which they knew them. Participants responded to the second item using a 7-point Likert-type scale ranging from 1 (*not very well*) to 7 (*extremely well*).

Audio Recordings. Each second session of the study was audio recorded. The audio recorder was placed out of sight for the second session. The audio recordings were started once both participants arrived in the lab just about 60 seconds before they entered the room. The audio recordings were stopped once both partners had been separated to complete the TIPI other-two as this concluded the experiment. The recordings were examined with Praat which analyzes the audio for various phonetic aspects of the speech (Boersma & Weenink, 2015). The relevant features of Praat for the current study were the number of syllables spoken by the group and the calculated speech rate of the session (number of syllables/duration of the recording). The audio recordings provided the opportunity to investigate how the speech rate might be associated with accuracy.

Procedures

Overview. Participants came into the lab on two separate occasions. Before beginning the experiment, participants were asked if they knew that they would have to come back for a second

session on another day. People who did not know were given the option to continue or drop out of the study. After completing the informed consent, participants completed the NEO PI-3, TIPI self, and the demographics survey. At the completion of the first session, participants were scheduled for session two. We randomly selected open time slots for participants to choose from and let them pick the slot that worked best with their schedule. Once a slot was selected the participant left the session, completed their registration online, and returned on their selected second session day. Their second session condition was randomly chosen before the participants arrived. Though technically this procedure was only quasi-random it did assign participants to a condition independently of experimental design. In fact, the between-condition analyses mentioned earlier demonstrated that there were no differences in age, gender, gender composition, and the Big Five traits between conditions.

On the second session, participants were kept in separate rooms upon arrival so they did not meet their partner before the start of the session. Once both partners arrived they were brought into a meeting room to introduce themselves. While the participants introduced themselves, the researcher went to the study room (where the participants complete the session) to turn on the audio recorder. The participants knew that the session would be audio recorded via the consent form, however, the audio recorder was put out of sight to encourage the participants to engage in natural behavior in the experimental setting. The researcher then returned to the meeting room to escort the participants to the group table in the study room.

Participants were told to have a seat at whichever chair they liked. A randomized list of numbers was created to select which partner would go first. The partners completed the 3-min arbitrary questions task and were then separated to different rooms to complete the TIPI for their partner (TIPI other-one). Participants were then brought back together in the study room to

complete the 45-min condition task, and lastly separated again to complete the TIPI for their partner again (TIPI other-two) and the acquaintanceship questionnaire. We obtain a measure of accuracy by correlating what Person A says about their own personality (TIPI self) with what Person B says about Person A's personality. This creates the self-other agreement where accuracies are created for each person in the dyad at two time points.

Experimental Conditions. Participants interacted in the lab in 1 of 3 conditions designed to vary the quality of interpersonal information available to participants. Interpersonal closeness is the first condition, highest in information quality and weakest in strength, meaning it allows for the most behavioral variability. In this condition participants complete the closeness generating procedure where they take turns asking and responding to personally relevant questions that increase in personal intensity with each item (Aron, Melinat, Aron, Vallone, & Bator, 1997).

The other two conditions were cooperation and competition. In cooperative contexts, interaction partners have the same goal, and if they achieve their shared goal, they both earn a reward. In competitive contexts, interaction partners have opposing goals, and only one individual can win at the end of the interaction (Tsoi, Dungan, Waytz, & Young, 2016). In the cooperation condition participants play a cooperative board game called co-opoly and the competition condition has participants complete a game of Monopoly. Co-opoly is likely a weaker strength game than Monopoly because in each subsequent round there are more possible move outcomes in co-opoly than Monopoly.

Each of the groups consisted of two participants in 1 of 3 possible gender compositions: all male (M-M), all female (F-F), or 1 male and 1 female (M-F). There were too few males in the sample to compare these compositions; therefore, our analyses combined all three gender

compositions. In all conditions, participants were seated at a round-table and given verbal instructions for each task. The materials needed for the conditions were placed on the table and covered with a table cloth so the participants did not know which condition they would be in at the start of the study.

Interpersonal Closeness. The interpersonal closeness condition was designed to allow participants to share intimate and personality relevant information with one another for 45 minutes. The interpersonal closeness procedure was taken and slightly adapted from the closeness generating procedure created by Aron et al. (1997).

The participants were told that this was a study of interpersonal closeness, and their task was to get close to their partner by engaging in a sharing game. Participants were given three sets of exercises. Each exercise had a question or a task written on it and participants were instructed that one of them would read aloud the first exercise and then both do what it asks, starting with the person who read the exercise aloud. Participants completed each exercise, in order, and alternated who read the exercise aloud to switch who went first. Participants had 15 minutes for each set of exercises and were told when to move onto the next set of exercises. To be sure that participants were answering the questions to the best of their ability the researchers read this line: “It is not important to finish all the exercises in each set within the time allotted. Take plenty of time with each exercise, doing what it asks thoroughly and thoughtfully.” Lastly, the participants were told that if by chance they did finish the exercise early to let the researcher know. If this happened the participants were given the second set and reminded to take their time with the questions. We kept track of the lost time from the previous set and added it to the current set to ensure equal amount of talking across different partner sessions.

The questions and tasks were intended to allow the participants to get to know each other well in a short amount of time. Since the questions were increasingly personal, participants had the chance to learn about the thoughts, feelings, emotions, secrets, and behaviors of their partner. This freedom of expression allowed for a great amount of personality relevant information to be shared during the session, which is why interpersonal closeness was the weakest situation in the study that produced the highest quality information. The closeness generating procedure and its instructions can be found in Appendix B.

Cooperation. The cooperation condition had participants play a game of Co-opoly: a game that participants cannot win unless they work together. Participants were told that their main objective is to start a new co-op together. To do this they must survive as individuals, make decisions, and complete challenges as a team. To reinforce the cooperative behavior, the participants were told that they needed to play to the best of their ability because they won and lost together and that they would be rewarded based on how they performed together during the session.

They were given an instruction sheet with detailed rules on how to play the game. As a brief set of verbal instructions, the players were told that they will roll the dice and move around the board, pick up a card that coincided with the color of the place they landed on and do what that card said. They were instructed that to win the game they had to select a purple card that said, "Start a new co-cop" and complete what that card says. If they started a new co-op they were to continue playing to try to start more co-ops together. If either partner, or the co-op ran out of money then they lost the game and were instructed to start the game over and to play again.

Participants played for 45 minutes and were instructed to let the researchers know if they had any questions on how to play the game. The cooperation condition was intended to be a medium strength situation. It contains elements of a strong situation (rolling dice, moving tokens) which limit behavioral expression; however, it also has weak situational elements where participants completed challenges (acting, drawing, speaking) which allow for greater behavioral expression. The instruction sheet for Co-opoly can be found in Appendix C.

Competition. The competition condition had participants play a game of Monopoly. The game was intended to put participants in a competitive mind set which was reinforced by telling the participants that “whoever has the most money at the end of the game will win a prize so we want you to compete to the best of your ability.” Participants were told that the goal of the game is to move around the board and collect money and property as they go. An instruction sheet was placed on the table that included detailed rules on how to play the game. Before the researcher left the room, participants were told again to play to the best of their ability and to notify the researcher if there were any problems or disagreements on how the game was to be played.

The competition condition was intended to be the strongest situational condition that produced the lowest quality information in the study. Since each round consisted mostly of actions that limited behavioral freedom (rolling dice, moving token, buying property) we believed that Monopoly would be a low-quality situation that would limit personality relevant information from being shared. In all three conditions participants were given candy at the end of the study to act as the reward for working to the best of their ability. The instruction sheet for Monopoly can be found in Appendix D.

Analyses. The focus of our study was on self-other agreement as a measure of accuracy. Participant’s raw personality data from the NEO-PI3 was converted to *t*-scores. This conversion

subtracted one from all 240 items to create a true zero for the analyses. The necessary items were reverse coded and then the *t*-scores were calculated for the Big Five personality traits and each trait's six facets. The raw data from the TIPI was also reversed coded. Every evened-numbered item for each trait was reversed coded for the three TIPI surveys that the participants completed.

To get a measure of accuracy we correlated the ratings of each partner in an interaction with the partner's self-ratings. To clarify, we correlated the TIPI self of Partner A (what Partner A believes about their personality) with the TIPI other-one and TIPI other-two of Partner B (what Partner B believes about their partner's personality). This created a correlation coefficient that represented the relationship between the ratings of the judge and the target's self-ratings. The correlations coefficients were then normalized to a Fisher's *Z*-transformed distribution. The resulted *Z*-transformed correlation coefficients served as the primary metric representative of personality judgment accuracy. The *Z*-transformed correlation coefficients were used as the dependent variable for each primary hypothesis in this study to allow us to study how accuracy was changing overtime and within each condition.

To test the effects of time on accuracy we used a paired sample *t*-test. To test the effects of condition on accuracy we used mixed model analysis. To identify differences between conditions a one-way ANOVA and paired samples *t*-test was conducted at time 1 and time 2. We also combined the competition and cooperation condition and compared them to the interpersonal closeness condition using a contrast analysis. Correlational analyses and mixed models were used to identify how extraversion and agreeableness were associated with accuracy. Lastly, we used a shapiro-wilks test to examine normality of the audio data, correlations, and a one-way ANOVA to study the effects of speech rate on accuracy.

CHAPTER 4

RESULTS

The focus of our analyses was on self-other agreement accuracy to examine the relationships between accuracy and personality with experimentally manipulated time (information quantity), and social context (information quality). In our analyses accuracy was the dependent variable and time, condition, and personality were independent variables.

Effects of Information Quantity on Accuracy

To investigate the hypothesis that participants would be more accurate at judging the personality of their partner after the social interaction task (time 2) compared to the first impression task (time 1), we conducted a paired samples *t*-test to compare overall accuracy at time 1 and time 2. Collapsing across all conditions, results indicated that there was a significant difference between the overall accuracies between time 1 ($M = 0.09$, $SD = 0.05$) and time 2 ($M = 0.18$, $SD = 0.46$), $t(299) = -3.42$, $p = .001$. Thus, participants were more accurate after the social interaction (time 2) compared to the first impression task (time 1).

Effects of Information Quality on Accuracy

To test the hypothesis that participants in the interpersonal closeness condition would have the greatest increase in accuracy from time 1 to time 2 as compared to the cooperation and competition condition, we ran a mixed model analysis treating time (1, 2) as a within-person variable and condition (cooperation, competition, interpersonal closeness) as a between-subjects variable. This analysis indicated a main effect of time, $F(2, 297) = 7.08$, $p = 0.001$ concurring with the findings in the first analysis. There was also a significant interaction between time and

condition $F(2, 297) = 13.22, p < 0.0001$ (See Figure 1) denoting that the change in accuracy from time 1 to time 2 is different between conditions. To explore the interaction, we conducted two ANOVAs to examine the effect of condition on accuracy at each time point. There was no effect of condition on accuracy at Time 1, $F(2, 297) = 0.61, p = .546$; however, there was an effect of condition on accuracy at Time 2, $F(2, 297) = 17.09, p < .000$.

We used a contrast analysis to compare the interpersonal closeness condition to the combined group of competition and cooperation. The interpersonal closeness condition was associated with improved accuracy (time 1 - time 2) as compared to the combined group of competition and cooperation, $F(1, 297) = 30.49, p < .001$. Furthermore, accuracy differed (approaching significance) between the competition ($M = 0.04, SD = 0.44$) and cooperation ($M = 0.15, SD = 0.44$) conditions, $t(204) = -1.84, p = 0.068$.

We additionally examined the interaction by considering the effect of time within condition. Results indicated that there was a significant difference of accuracy between time 1 and time 2 within the interpersonal closeness condition, $t(93) = -5.51, p < .0005$, but not in the competition, $t(107) = 0.49, p = .622$ or cooperation, $t(97) = -0.73, p = .467$ conditions.

Effects of Personality on Accuracy

To investigate the hypothesis that extraversion and agreeableness would be associated with accuracy at both time points we performed a series of regression analyses with judge's personality (extraversion or agreeableness) entered as the predictor variable and personality judgment accuracy entered as the criterion variable at each time point. Results indicated that extraversion was negatively associated with accuracy at time 1, $r(298) = -.172, p = .01$ and agreeableness was positively associated with accuracy at time 1, $r(298) = .114, p = .05$.

Extraversion was not associated with accuracy at time 2, $r(298) = -.075, p = .195$, nor was agreeableness, $r(298) = .077, p = .185$.

We then conducted a mixed model treating personality as a continuous between-subjects variable and time as a within person repeated measures variable to investigate the differences between the effects of personality on the change in accuracy from time 1 and time 2. Both extraversion and agreeableness were entered into the model together. Results indicated a marginally significant interaction between extraversion and time, $F(1, 297) = 3.43, p = .0650$. This means that the unique characteristics of extraversion, controlling for agreeableness, was related to change in accuracy. For agreeableness, we did not observe a significant interaction with time, $F(1, 297) = 1.13, p = .2886$.

To further probe the interaction between extraversion and accuracy over time we investigated the effects of high and low extraversion on accuracy at time 1 and time 2. Results indicated that there was an effect of time on accuracy for people high in extraversion $F(1, 297) = 13.79, p > .0002$ and there was not an effect of time on accuracy for people low in extraversion $F(1, 297) = 1.10, p = 0.29$ (See Figure 2). This suggests that people who were high in extraversion increased in accuracy from time 1 to time 2, while there was no effect of time on accuracy for people low in extraversion.

Audio Recordings

A shapiro-wilks test of normality indicated that the audio data was normally distributed $W=.99, p =.502$. We verified that the duration of the audio sessions was not different across conditions using a one-way ANOVA, $F(2, 137) = .22, p = .800$. To investigate how speech rate was associated with accuracy we correlated speech rate (number of syllables/duration) with overall accuracy at time 2 and found a significant correlation, $r(138) = .16, p = .008$. Since this

correlation represented each partner's individual accuracy with their group's combined speech rate we ran another correlation between the average of each participant's accuracy and the group's speech rate. Results indicated that speech rate and accuracy were not significantly related, $r(138) = .107, p = .206$. This allows us to understand the data from a different angle where we are correlating the average accuracy between each person in a group with their group speech rate. We finished the audio analyses with within-group correlations between accuracy and speech rate. Results indicated that there were not any significant correlations between speech rate and accuracy within each group: interpersonal closeness, $r(82) = .044, p = .694$, cooperation, $r(83) = -.030, p = .784$, and competition, $r(107) = .075, p = .438$. Combined, these findings indicate that speech rate does not directly predict personality judgment accuracy.

CHAPTER 5

DISCUSSION

The preceding analyses provide support for the relationships between time, social context, and personality on personality judgment accuracy. Experimentally manipulated information quantity and quality were positively associated with self-other agreement. Extraversion and agreeableness had differing associations with accuracy at different time points.

Effects of Information Quantity on Accuracy

To understand how time was associated with accuracy, we manipulated time by having participants interact in a 3-min task and again in a 45-minute task. Collapsed across all conditions time was positively associated with accuracy. Participants were more accurate after completing the 45-min portion of the experiment compared to the 3-min portion. The current research confirms past findings that self-other agreement increases with acquaintance level (Blackman & Funder, 1998; Funder, 1995; Paunonen, 1989) and provides additional evidence supporting the positive relationship between the amount of time a person is known and accuracy of judgment of that person. These results support the claim that information quantity, the sheer amount of information in a situation, helps people produce more accurate judgments of others.

Effects of Information Quality on Accuracy

To our knowledge this is one of the first studies to provide evidence for the positive relationship between personality judgment accuracy and information quality and to collect two measurements of accuracy in a realistic partner setting. When considering how social context is associated with accuracy we had participants complete the 45-min portion of the study in 1 of 3

conditions: interpersonal closeness, competition, and cooperation. Interpersonal closeness, a weak situation, acted as the high information quality condition. Cooperation, a stronger situation, was designed to be a medium-quality condition and competition, the strongest situation, was designed to be the low-quality condition.

The results indicated that there were no differences in accuracy at time 1 between conditions which was expected since the participants were not aware of what condition they were in until after the first measurement of accuracy was taken. There were significant differences in accuracy between the conditions at time 2. Participants in the interpersonal closeness condition were the most accurate at time 2 compared to the other two conditions and participants in the cooperation condition were marginally more accurate at time 2 compared to the competition condition.

The mixed model analysis demonstrated that the change in accuracy from time 1 to time 2 was different between conditions. Participants in the interpersonal closeness condition significantly increased in accuracy from time 1 to time 2. There was no significant change in accuracy from time 1 to time 2 for participants in the competition and cooperation conditions. When looking at accuracy within condition, the only condition that affects accuracy is interpersonal closeness; however, when looking between conditions there is a clearer pattern of increasing accuracy at time 2 (Interpersonal closeness > Cooperation > Competition).

To look further into interpersonal closeness, we combined cooperation and competition into a “game” condition to compare a weak situation (interpersonal closeness) to the combined accuracy in strong situations (competition and cooperation). Participants in the interpersonal closeness condition were significantly more accurate at time 2 than participants in the combined game condition. These analyses support our hypotheses that those in the interpersonal closeness

condition would have the greatest increase in accuracy from time 1 to time 2 as compared to the cooperation and competition conditions.

These results align with previous work in information quality and situational strength. A main argument of information quality is that certain situations lend themselves better to judging the accuracy of someone's personality because they allow for more freedom for people to express their personality. Interactions in social situations can be viewed as either strong or weak. A weak situation allows for considerable behavioral variation because there are few rules and norms for typical behavior and a strong situation limits the range of behavior that people can display because they include explicit rules and norms.

In the current study, interpersonal closeness was a weak situation, producing high quality information, that allowed people to pick up on more personality relevant information throughout the interaction. Cooperation was the medium-quality situation where people had less personality relevant information available. Competition was the low-quality situation with the strictest restraints on behavioral freedom which provided very little opportunity to express personality relevant information which hindered people's ability to accurately judge their partners.

The results clearly demonstrate that the interpersonal closeness condition increases accuracy over time. Competition and cooperation do not increase accuracy over time but when compared to interpersonal closeness it becomes clear that accuracy is dependent on the social context. The pattern of accuracy at time 1 may have contributed to this pattern. Though the time 1 accuracies between conditions are not significantly different, competition was surprisingly low. We speculate that if competition had a more similar time 1 accuracy to the other conditions, we would have more definitive evidence that the competition task decreased accuracy over time which would better match our predictions. Nevertheless, the data supports the claim that social

context (driven by situational strength) affects the ability for people to make accurate judgments of other's personality characteristics.

Effects of Personality and Accuracy

The results demonstrated differential effects of personality on judgment accuracy. Extraversion was negatively associated with accuracy at time 1 and agreeableness was positively associated with accuracy at time 1. Neither trait was associated with accuracy at time 2.

Extraversion

We hypothesize that people who are high in extraversion are inaccurate at time 1 because they are inattentive to personality cues early in social interactions. Past research demonstrates that extraverted people enjoy social interactions and experience an increase in positive affect related to these interactions (Laney, 2002); however, it has also been demonstrated that people high in extraversion prefer a breadth of activities over the depth of a single activity. Perhaps highly extraverted people are highly focused on the many tasks to be completed in the experiment rather than the single task of understanding their partner's personality.

Another important aspect of extraverts related to decreased accuracy at time 1 is that they tend to be talkative. Even though extraverted people enjoy social situations and to engage with others it is likely that since highly extraverted people talk more they do not give their partners a chance to express their personalities and do not listen to what their partners are saying. To provide support for the increased talkativeness of extraverts, a post hoc analysis averaged each dyad's extraversion scores and correlated that to their speech rate during the experiment. The results indicated that people who are more extraverted than average spoke marginally more than participants low in extraversion, $r(137) = .144, p = .092$. Highly extraverted people talk more

which could mean that they listen less and therefore are less accurate at judging their partner's personality in a short amount of time.

Extraverted people prefer to assert themselves in social situations. Highly assertive people are not accurate at judging and understanding others. For example, people who are assertive have worse communication skills (Kuntze et al., 2016), are less careful about how they assess others (Brauer et al., 2004), and tend to stereotype others instead of picking up on individuating information (Fiske, 1993; Vescio et al., 2003) when compared to people who are less assertive. Interestingly, when we identified which facets of extraversion were associated with accuracy we found that assertiveness had the strongest negative relationship to accuracy at time 1 $r(298) = -.183, p = .001$. Together, this information leads us to believe that though extraverted individuals like to engage in prosocial behavior and social interactions, they are not accurate judges of personality given a short amount of time.

At time 2, extraversion was not associated with accuracy. It seems, in a sense, that given more time the attributes related to extraversion that harm accuracy at time 1 are overcome. When we looked at the facets of extraversion at time 2, we did find that assertiveness was negatively associated with accuracy $r(298) = -.147, p = .005$.

The fact that extraversion and agreeableness were associated with accuracy at time 1 but not time 2 demonstrates that with limited time and when making first impressions, people rely on their intuition and own personality characteristics to judge others instead of using the external personal and situational cues. This is in line with previous research that indicates that well-adjusted individuals perceive new acquaintances based on what they believe an average person to be like. This is a good strategy for making accurate judgments of others given little time and information. Further, well-adjusted individuals had the tendency to perceive their own unique

personality characteristics in unacquainted others (Human & Biesanz, 2011) pointing to the idea that when meeting someone new a person might use what they know about their own unique traits to assess the personality traits of the other person. This might be the reason that we no longer see associations between personality and accuracy at time 2. With little time people rely on their own personality as tool box to judge the personalities of others but with more time the influx of personality salient information allows people to rely on the situation to make judgments.

Agreeableness

Agreeableness was positively associated with accuracy at time 1 but not associated with accuracy at time 2. Agreeableness is a social trait related to kindness, generosity, and cooperation. We hypothesize that people who are high in agreeableness are accurate at time 1 because they are attentive to personality cues early in social interactions.

We believe that because people high in agreeableness are more concerned with maintaining relationships and are more trusting of others (Rothmann & Coetzer, 2003) that they have an advantage in making judgments of another person early in social interactions. In a social interaction, trust is an important component of allowing individuals to express themselves. Evidence suggests that people who are more trusting of others are more capable of detecting and processing signs of risk in a social interaction (Yamagishi, 2001). Therefore, people high in agreeableness are likely to be able to effectively evaluate another person's trust. If a person can do this quickly then they can spend more time listening to another person and will have a higher quality interaction (sharing more information) since they feel like they can trust the other person. Additionally, more lines of open communication are open early in social interactions if people are more trusting of each other. These aspects combined with an agreeable person's desire to

create and maintain relationships it becomes clear why agreeableness is associated with personality judgment accuracy.

What becomes less clear is why agreeableness was not associated with accuracy at time 2. This finding could have the same explanation as extraversion, where over time highly agreeable people no longer rely on intuition and their own characteristics to judge others and instead use the external personal and situational cues to make judgments.

This is supported by the fact that people who are agreeable tend to perceive others as having more positive traits even when those people do not have such traits. For example, self-ratings of agreeableness were associated with perceiving others as conscientious, emotionally stable, open, and agreeable even when the target did not possess these traits (Wood et al., 2010). These findings were true when agreeable people were asked to describe individuals in the population. It could be the case that when placed in a real social interaction and given limited information about others, agreeable people are more accurate at judging the personality of other's because they rely on intuition and what they believe an average person to be like. When given more time with that person the level of agreeableness no longer helps them make judgments because they can rely on the situation and personality information they get from their partner to make judgments.

When we created the current experiment, we decided to take an exploratory approach to study the relationship between extraversion and agreeableness on accuracy. Results of this study support the hypotheses that these traits are associated with accuracy at time 1 but does not support the hypothesis of the same association at time 2. To further explore these associations, we completed a mixed model to understand how each trait was associated with the change in accuracy from time 1 to time 2.

Results from this test demonstrated that agreeableness had a marginally significant negative effect on the change in accuracy from time 1 to time 2 and extraversion had a significant positive effect on the change in accuracy. Agreeableness did not have a significant interaction with time, but extraversion did express a marginally significant interaction with time. Because of this marginal interaction, we decided to consider how extraversion was associated with accuracy over time but did not look further into agreeableness.

The results indicated that people who are high in extraversion were more accurate at judging their partners from time 1 to time 2. What this analysis adds to the paper and overall personality accuracy literature is that we see highly extraverted people are becoming significantly more accurate over time. This might be explained by situational effects. Perhaps because highly extraverted people are so inaccurate at time 1 due to these aforementioned factors they are able to improve their accuracy by relying on the situation. They can overcome the factors that initially make them inaccurate and improve their accuracy because more time with their partners allows for increased information quantity and quality which positively affects their judgments.

Audio Recordings

To our knowledge, this was one of the first studies to audio record sessions to investigate how speech rate might affect accuracy. We would expect speech rate to be associated with accuracy to a certain extent because information quantity is associated with accuracy; however, we wanted to demonstrate that it is not information quantity alone that affects accuracy. To demonstrate that the situation, independent of speech, was associated with accuracy we ran correlations between speech rate and accuracy within each condition. There were no significant correlations between accuracy and the amount that the participants were speaking within each

condition. Thus, we can be more certain that the effects we see within each condition are not due to speech rate, but the information quality in that condition.

Limitations and Future Directions

Like any study, our experiment has limitations that could affect interpretation of the results. First, the pattern of findings for the within-condition accuracy analysis was challenging to interpret. Even though our analyses suggest that there are relationships between information quantity, quality, and accuracy this result was mainly driven by differences in the interpersonal closeness condition. The pattern of findings would have been more compelling if there had been stronger differences in accuracy at time 2 within the competition and cooperation conditions. While we think that the present evidence supports the role of information quantity and quality on accuracy, demonstrating that competition decreased accuracy would have made an even more convincing argument for information quality.

Future research should identify other techniques for providing participants with small and large amounts of information and other ways to manipulate information quality. Similarly, we believe that monopoly might have been an ineffective way of producing a competitive mindset in the lab. Almost all participants were familiar with Monopoly, which we thought would be a positive aspect of the game (cuts down on instruction time, creates a fair playing field); however, the familiarity of the game seemed to make people apathetic about participation. Future research should try to create a competition task that is easy for participants to play and learn that does a better job of getting participants to compete.

Another sensible next step for future research would be to increase external validity of the current study with an experiment that allows participants to interact in real world social situations. The current experiment attempted to expand on previous research that measured

accuracy from video-taped interactions and other proxies for interaction by having participants interact in a more real-world situation with another person physically present. Still, there are many situations in which previously unacquainted groups of people interact outside of a laboratory setting. For example, college students may meet for the first time in the dormitory, a new employee in the workforce meets their co-workers for the first time in a business setting, and professional baseball players meet their teammates for the first time in a locker room. These situations are all different and could have different effects on accuracy. Research in this field should progress to include new social contexts in real world settings to understand how information quality and quantity are affected outside of the lab.

A third direction for future research should explore how people make judgments in first impressions. The current research demonstrates first impression creation by taking a measurement of accuracy after a 3-minute interaction, which was meant to allow for little information sharing between partners. Results indicate that people are inaccurate at making first impressions compared to how their impressions become more accurate from time 1 to time 2. Researchers should investigate the accuracy of first impressions across many social interactions because making accurate judgments of another person in a cooperative situation, for example, may yield different results than if a person were in a competitive situation.

Another direction for future research is to determine the actual behavioral events during an interaction that allow people to make accurate judgments. In the current study, we audio recorded the sessions to quantify how much participants spoke. Finding a way to audio and video record the interaction for each participant individually would be useful in teasing apart what behavioral cues are most important for understanding why information quantity and quality are related to accuracy.

Additionally, research should begin to think about other types of judgments people make and how their personality is related to that judgment. Understanding how people make judgments of other's personality is important, but it is not the only realm of decision making that should be investigated. For example, researchers could investigate how people make financial decisions, decisions about the behaviors of others, or decisions on dieting and exercise.

Lastly, research could consider demographic traits pertaining to a person that might affect accuracy. In the current study, a limitation was our demographics survey as we only collected data on sex and age of our participants. Future research should investigate how religion, ethnicity, sexual orientation, and other personal demographics might change how people view and create accurate judgments of others.

Conclusion

The current findings support the implications of information quality and quantity on a person's ability to make accurate judgments of others. The experiment suggests that knowing someone for a longer amount of time helps people to produce more accurate judgments of each other. Additionally, the findings suggest that certain situations allow for more personality relevant information to be available thus increasing one's accurate judgments. The amount of information and the quality of that information are both important factors that help people make accurate judgments on personality. Additionally, the study indicates that there are certain personality traits associated with accuracy. During first impressions, people who are highly extraverted are inaccurate at making personality judgments, and people high in agreeableness are more accurate at judging other's personality characteristics.

This study provides important implications for many real-world applications. It advances our understanding about how people judge and characterize one another, and what factors are

useful when making personality judgments. Knowing that certain personality traits tend to be associated with inaccuracy at predicting others traits, allows us to design strategies to overcome this weakness. For example, highly extraverted people should understand that their personality judgments of others in first impression instances is typically inaccurate, and people high in agreeableness should be aware that their judgments tend to be more accurate.

These instances are particularly useful for interviews of any sort. For example, to make sure a firm is hiring the best person for the job, or a university is accepting the best student into a graduate program, the interviewing entity should make sure they have the person who is the most accurate judge of character. According to the current study, the best person to do an interview given a short amount of time is a person who is highly agreeable and low in extraversion. The best possible scenario to ensure the most accurate judgments of the interviewees is to have a multiple day interview with situations that allow for greatest amount of personality relevant information to be shared. Any situation with the greatest amount of information and quality information, as well as having a person with the most appropriate personality traits to make judgments will ensure the most accurate judgments of others.

The last implication of this study comes from the finding that people change their opinions of others after spending more time with them in different situations. People should not necessarily trust their gut judgments as people are often inaccurate at creating first impressions; however, with time people reevaluate others and adjust their judgments to eventually make more accurate judgments. The findings from this study should give anyone who is afraid that they have created a bad first impression peace of mind as the results indicate that people change their first impressions over time to better match who a person truly is.

In all, this study demonstrates that when a person has more time with another individual, more personality relevant information about that individual, and the appropriate personality type to make interpersonal judgments, then they can produce more accurate judgments of another individual's personality characteristics.

REFERENCES

- Allport, G. W. (1937). *The ability to judge people*. In G.W Allport, *Personality: A psychological interpretation*. New York: Holt.
- Ambady, N., Hallahan, M., & Rosenthal, R. (1995). On judging and being judged accurately in zero-acquaintance situations. *Journal of personality and social psychology*, 69(3), 518.
- Anderson, S. M. (1984). Self-knowledge and social inference. II. The diagnosticity of cognitive/affective and behavioral data. . *Journal of personality and social psychology*, 46, 294-307.
- Aron, A., Melinat, E., Aron, E. N., Vallone, R. D., & Bator, R. J. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, 23(4), 363-377.
- Atta, M., Ather, M., Bano, M. (2013). Emotional Intelligence and Personality Traits among University Teachers: Relationship and Gender Differences. *International Journal of Business and Social Science*, 4(17).
- Blackman, M. C., & Funder, D. C. (1998). The effect of information on consensus and accuracy in personality judgment. *Journal of Experimental Social Psychology*, 34(2), 164-181.
- Boersma, P., & Weenink, D. (2015). Praat: Doing phonetics by computer [Computer program]. Version 6.0. 05.
- Borkenau, P., & Liebler, A. (1993a). Consensus and Self-Other Agreement for Trait Inferences from Minimal Information. *Journal of Personality*, 61(4), 477-496.

- Borkenau, P., & Liebler, A. (1993b). Convergence of stranger ratings of personality and intelligence with self-ratings, partner ratings, and measured intelligence. *Journal of personality and social psychology*, 65(3), 546.
- Brauer, M., Chambres, P., Niedenthal, P. M., & Chatard-Pannetier, A. (2004). The relationship between expertise and evaluative extremity: The moderating role of experts' task characteristics. *Journal of personality and social psychology*, 86(1), 5.
- Carlo, G., Okun, M. A., Knight, G. P., & de Guzman, M. R. T. (2005). The interplay of traits and motives on volunteering: Agreeableness, extraversion and prosocial value motivation. *Personality and individual differences*, 38(6), 1293-1305.
- Casciaro, T. (1998). Seeing things clearly: Social structure, personality, and accuracy in social network perception. *Social Networks*, 20(4), 331-351.
- Christiansen, N. D., Wolcott-Burnam, S., Janovics, J. E., Burns, G. N., & Quirk, S. W. (2005). The good judge revisited: Individual differences in the accuracy of personality judgments. *Human Performance*, 18(2), 123-149.
- Colvin, C. R. (1993). "Judgable" people: personality, behavior, and competing explanations. *Journal of personality and social psychology*, 64(5), 861.
- Connelly, B. S., & Ones, D. S. (2010). An other perspective on personality: meta-analytic integration of observers' accuracy and predictive validity. *Psychological bulletin*, 136(6), 1092.
- Epstein, S. (1979). The Stability of Behavior: I. On Predicting Most of the People Much of the Time. *Journal of personality and social psychology*, 37, 1097-1126.
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American psychologist*, 48(6), 621.

- Funder, D. C. (1995). On the accuracy of personality judgment: a realistic approach. *Psychological review*, 102(4), 652.
- Funder, D. C. (1999). *Personality judgment: A realistic approach to person perception*: Academic Press.
- Funder, D. C., Kolar, D. C., & Blackman, M. C. (1995). Agreement among judges of personality: interpersonal relations, similarity, and acquaintanceship. *Journal of personality and social psychology*, 69(4), 656.
- Funder, D. C., & Ozer, D. J. (1983). Behavior as a function of the situation. *Journal of personality and social psychology*, 44(1), 107.
- Gosling, S. D., Rentfrow, P.J., Swann, W.B. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality*, 37, 504-528.
- Hall, J. A., Goh, J. X., Mast, M. S., & Hagedorn, C. (2015). Individual Differences in Accurately Judging Personality From Text. *Journal of Personality*.
- Hekmat, H., Khajavi, F., & Mehryar, A. (1974). Psychoticism, neuroticism, and extraversion: The personality determinants of empathy. *Journal of clinical psychology*, 30(4), 559-561.
- Human, L. J., & Biesanz, J. C. (2011). Through the looking glass clearly: accuracy and assumed similarity in well-adjusted individuals' first impressions. *Journal of personality and social psychology*, 100(2), 349.
- Human, L. J., Thorson, K. R., & Mendes, W. B. (2016). Interactive Effects Between Extraversion and Oxytocin Administration Implications for Positive Social Processes. *Social Psychological and Personality Science*, 1948550616644964.
- Ickes, W., Gesn, P. R., & Graham, T. (2000). Gender differences in empathic accuracy: Differential ability or differential motivation? *Personal Relationships*, 7(1), 95-109.

- John, O. P., & Robins, R. W. (1993). Determinants of interjudge agreement on personality traits: The Big Five domains, observability, evaluativeness, and the unique perspective of the self. *Journal of Personality, 61*(4), 521-551.
- Kraus, M. W., Côté, S., & Keltner, D. (2010). Social class, contextualism, and empathic accuracy. *Psychological science.*
- Kuntze, J., van der Molen, H. T., & Born, M. P. (2016). Big Five Personality Traits and Assertiveness do not Affect Mastery of Communication Skills. *Health Professions Education, 2*(1), 33-43.
- Laney, M. O. (2002). *The introvert advantage: How to thrive in an extrovert world*: Workman Publishing.
- Letzring, T. D. (2008). The good judge of personality: Characteristics, behaviors, and observer accuracy. *Journal of Research in Personality, 42*(4), 914-932.
- Letzring, T. D., Wells, S. M., & Funder, D. C. (2006). Information quantity and quality affect the realistic accuracy of personality judgment. *Journal of personality and social psychology, 91*(1), 111.
- Lewin, K. (1936). *Principles of Topological Psychology*. New York: McGraw-Hill.
- Lippa, R. A., & Dietz, J. K. (2000). The relation of gender, personality, and intelligence to judges' accuracy in judging strangers' personality from brief video segments. *Journal of Nonverbal Behavior, 24*(1), 25-43.
- McCrae, R. R., Costa, J., Paul T, & Martin, T. A. (2005). The NEO-PI-3: A more readable revised NEO personality inventory. *Journal of personality assessment, 84*(3), 261-270.
- Mischel, W. (1968). *Personality and Assessment*. New York: Wiley.

- Olakitan, O. O. (2011). An examination of the impact of selected personality traits on the innovative behaviour of entrepreneurs in Nigeria. *International Business and management, 3*(2), 112-121.
- Paulhus, D. L., & Bruce, M. N. (1992). The effect of acquaintanceship on the validity of personality impressions: A longitudinal study. *Journal of personality and social psychology, 63*(5), 816.
- Paunonen, S. V. (1989). Consensus in personality judgments: Moderating effects of target-rater acquaintanceship and behavior observability. *Journal of personality and social psychology, 56*(5), 823.
- Rani, M. S. (2015). Emotional intelligence-A model for effective leadership, competency and career growth. *Indian Journal of Science and Technology, 8*(S4), 240-246.
- Rothmann, S., & Coetzer, E. P. (2003). The big five personality dimensions and job performance. *SA Journal of Industrial Psychology, 29*(1).
- Snyder, M., & Ickes, W. (1985). Personality and social behavior. *Handbook of social psychology, 2*(3), 883-947.
- Sorokowska, A., Sorokowski, P., & Szmajke, A. (2012). Does personality smell? Accuracy of personality assessments based on body odour. *European Journal of Personality, 26*(5), 496-503.
- Tsoi, L., Dungan, J., Waytz, A., & Young, L. (2016). Distinct neural patterns of social cognition for cooperation versus competition. *NeuroImage*.
- Vescio, T. K., Snyder, M., & Butz, D. A. (2003). Power in stereotypically masculine domains: a Social Influence Strategy X Stereotype Match model. *Journal of personality and social psychology, 85*(6), 1062.

- Vogt, D. S., & Randall Colvin, C. (2003). Interpersonal orientation and the accuracy of personality judgments. *Journal of Personality*, 71(2), 267-295.
- Wood, D., Harms, P., & Vazire, S. (2010). Perceiver effects as projective tests: what your perceptions of others say about you. *Journal of personality and social psychology*, 99(1), 174.
- Yamagishi, T., Cook, K. (2001). Trust as a form on social intelligence *Trust in Society* (Vol. xxviii, pp. 121-147). New York: Russell Sage Foundation.

FIGURES

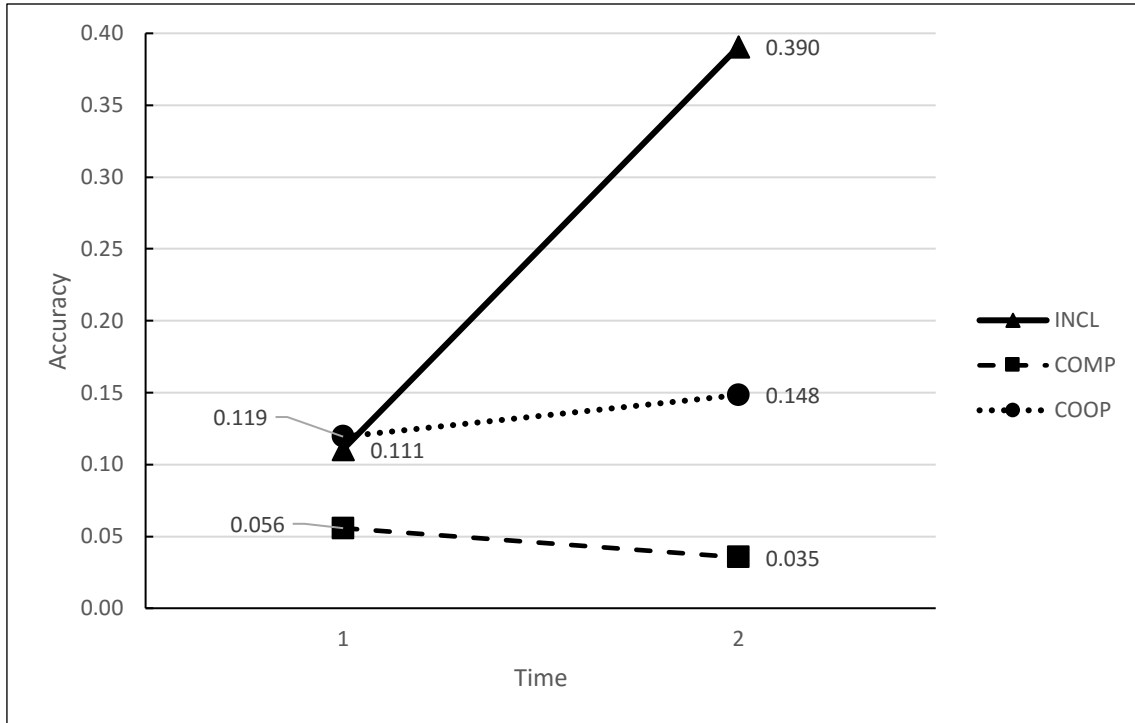


Figure 1: Interaction between time and condition.

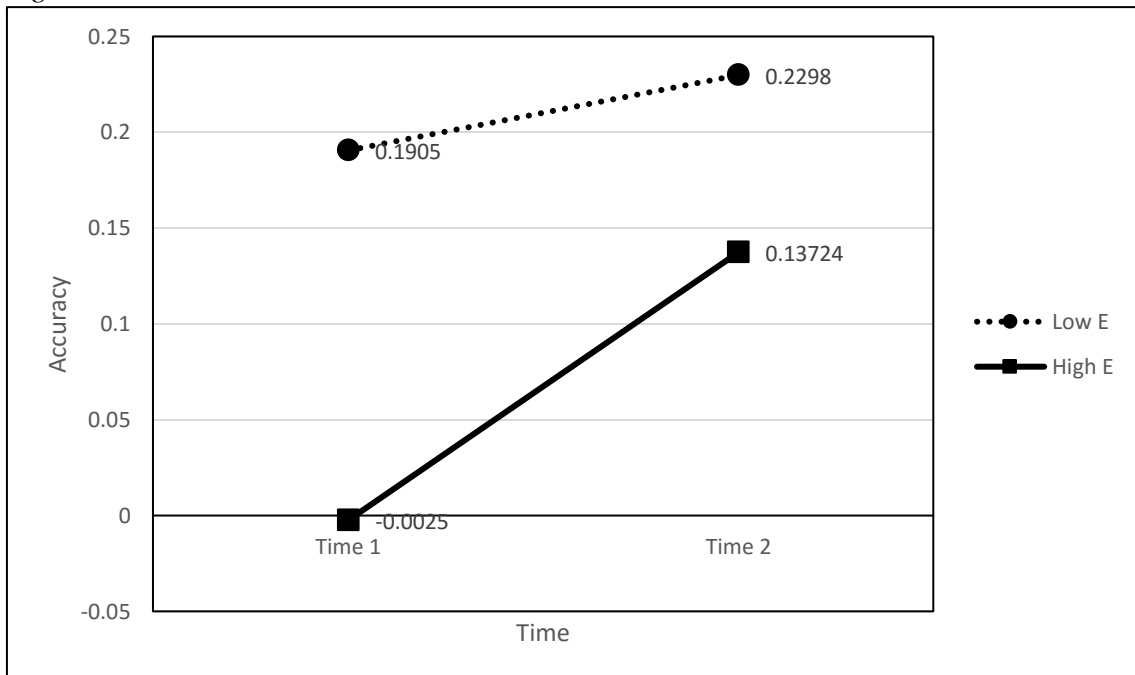


Figure 2: Interaction between time and extraversion

APPENDIX A

Arbitrary Questions Task

Questions

Instructions: Please take turns asking and responding to these questions. Feel free to pick any question, and take as much time as you like per question. Please fill in your best guesses in the spaces provided. You have approximately three minutes with your partner. Your time will start when I close the door. Are there any questions?

1. How many toothpicks would it take to fill the empire state building? _____
2. How many steps would it take to get from the psychology building to the Miller Learning Center? _____
3. How tall is the Psychology building in feet? _____
4. How many ounces of water would be needed to fill an average sized pool? _____
5. How many hairs does a typical human have on their head? _____
6. Are there more humans in the world, or dogs? _____
7. How many bacteria are in the average human's mouth? _____
8. How many times are needed to fold a piece of paper to reach the moon? _____
9. How many people are there in the United States? _____
10. How many ounces of coffee are drank from Tate Facilities on a daily basis? _____
11. How many gallons of water flow over a waterfall in one day? _____
12. How many pounds of food does an ant collect in one year? _____
13. How many times can the United States fit into Africa? _____
14. How many times a day does an average dog bark? _____
15. What is the distance in feet from Sanford Stadium to Tate Student Center? _____
16. How many taste buds does the average human have? _____
17. What is the most common letter used to make other words? _____
18. On a clear day and there is nothing in your path, what is the farthest distance in feet, your eyes can see? _____
19. How many miles have you walked during your time at UGA? _____
20. How many hours do you think you have logged in phone usage this year? _____

APPENDIX B

Interpersonal Closeness Task

Closeness Generating Procedure
36 items- 3 sets, with 12 questions each.

INSTRUCTIONS

This is a study of interpersonal closeness, and your task, which we think will be quite enjoyable, is simply to get close to your partner. We believe that the best way for you to get close to your partner is for you to share with them and for them to share with you. Of course, when we advise you about getting close to your partner, we are giving advice regarding your behavior in this demonstration only, we are not advising you about your behavior outside of this demonstration. In order to help you get close we've arranged for the two of you to engage in a kind of sharing game. Your sharing time will be for about 45 minutes.

You have been given three sets of exercises. Each exercise has a question or a task written on it. As soon as I finish reading these instructions, you should begin with the Set I exercises. One of you will read aloud the first exercise and then BOTH do what it asks, starting with the person who read the exercise aloud. When you are both done, go on to the second exercise--one of you reading it aloud and both doing what it asks. And so forth. As you go through the exercises, one at a time, please don't skip any exercises--do each in order. If it asks you a question, share your answer with your partner. Then let him or her share their answer to the same question with you. If it is a task, do it first, then let your partner do it. Alternate who reads aloud (and thus goes first) with each new exercise. You will have 15 minutes for each set, and will be informed when to move on to the next set of exercises. **It is not important to finish all the exercises in each set within the time allotted. Take plenty of time with each exercise, doing what it asks thoroughly and thoughtfully.** Please share your answers out loud, and do not write them down. The time will begin when I close the door. Please let me know if you finish early, though the objective is to talk about each of these questions in depth with your partner.

Set I

1. Given the choice of anyone in the world, whom would you want as a dinner guest?
2. Would you like to be famous? In what way?
3. Before making a telephone call, do you ever rehearse what you are going to say? Why?
4. What would constitute a "perfect" day for you?
5. When did you last sing to yourself? To someone else?
6. If you were able to live to the age of 90 and retain either the mind or body of a 30-year old for the last 60 years of your life, which would you want?
7. Do you have a secret hunch about how you will die?
8. Name three things you and your partner appear to have in common.

9. For what in your life do you feel most grateful?
10. If you could change anything about the way you were raised, what would it be?
11. Take 4 minutes and tell your partner your life story in as much detail as possible.
12. If you could wake up tomorrow having gained any one quality or ability, what would it be?

Set 2

13. If a crystal ball could tell you the truth about yourself, your life, the future, or anything else, what would you want to know?
14. Is there something that you've dreamed of doing for a long time? Why haven't you done it?
15. What is the greatest accomplishment of your life?
16. What do you value most in a friendship?
17. What is your most treasured memory?
18. What is your most terrible memory?
19. If you knew that in one year you would die suddenly, would you change anything about the way you are now living? Why?
20. What does friendship mean to you?
21. What roles do love and affection play in your life?
22. Alternate sharing something you consider a positive characteristic of your partner. Share a total of 5 items.
23. How close and warm is your family? Do you feel your childhood was happier than most other people's?
24. How do you feel about your relationship with your mother?

Set 3

25. Make 3 true "we" statements each. For instance, "We are both in this room feeling ... "
26. Complete this sentence: "I wish I had someone with whom I could share ... "
27. If you were going to become a close friend with your partner, please share what would be important for him or her to know.
28. Tell your partner what you like about them; be very honest this time saying things that you might not say to someone you've just met.
29. Share with your partner an embarrassing moment in your life.
30. When did you last cry in front of another person? By yourself?
31. Tell your partner something that you like about them already.
32. What, if anything, is too serious to be joked about?
33. If you were to die this evening with no opportunity to communicate with anyone, what would you most regret not having told someone? Why haven't you told them yet?
34. Your house, containing everything you own, catches fire. After saving your loved ones and pets, you have time to safely make a final dash to save any one item. What would it be? Why?
35. Of all the people in your family, whose death would you find most disturbing? Why?
36. Share a personal problem and ask your partner's advice on how he or she might handle it. Also, ask your partner to reflect back to you how you seem to be feeling about the problem you have chosen.

APPENDIX C

Cooperation Task

Co-opoly Instructions

The Objective

Your main objective is to start a new cooperative together. To do this you will have to survive as individuals and make decisions and complete challenges as a team! Play to the best of your ability because you will be rewarded based on the amount of money that you, your partner, and your co-op have at the end of the game! Remember, you win and lose-together.

Things you will need to start

- Player management tool- Keep track of your life characteristics
- Game token on start
- Sand timer
- Work card legend- Guide to what the cards mean

General Rules

- All members of the co-op move across the board with the same piece. Take turns rolling the die, moving the token, and drawing cards to play
- You can count the Co-op's points at any time
- Mark out costs of living on player management tool to keep track of the year.

Co-op's Points

The Co-op's points belong equally to all members so everyone must agree on how they are used.

Pay Day Spaces

1. No matter what you roll, you must stop on a Pay Day space. **Do not pass it.**
2. The co-op now pays each player his or her complete salary.
3. The salary starts at 12 points- NOTE: The co-op can decide to change salaries at any time during the game.
4. **The only time players can give or get points from each other or the co-op is on the pay day and end of year spaces!**

End of the Year

1. No matter what you roll you stop at the end of year space.
2. One full trip around the board is one year, but not the end of the game.
3. Follow instructions on board

Losing

If either your cooperative or any one player goes bankrupt, everyone loses and the game ends.

Please restart a new game until your time is up. You're playing for a reward, so work quickly!

Winning

The purple challenge cards may contain a Start a Second Co-op card. Complete this card at a payday or end of year slot and win the game! **If you finish before time is up, then try to start as many co-ops as possible!**

Types of Cards

There are 4 types of cards you may play throughout the game. Always play the first side you see!

World Cards- Can positively or negatively affect players or the co-op

Resource Cards- resources your co-op can choose to purchase

Challenge Cards- Purple cards that present either major hurdles or big opportunities for your co-op

Work Cards- To earn the co-op points, you may play a game of charades, unspoken, or drawing.

Instructions on how to play are on the red cards. Always play the first side of the card you see.

To Begin Play

1. Each player randomly draws an orange character card. Play the first card you see, do not flip it over. Read your card aloud to your partner and fill out the player management tool.
2. Give each player their starting points that are that is specified on their card.
3. You now have to start a Co-op together. Each player deposits 20 points to the Co-op's point bank at the bottom of the board to start the game.
4. Roll the die and begin the game! The space you land on corresponds to a card and the card has instructions on how to continue play. **Remember your goal is to start a new co-op together.**

APPENDIX D

Competition Task

Monopoly Instructions

The Objective

Move around the board to buy as many properties as you can. The more you own the more rent you'll get. You are competing against your partner to have the most money by the end of the game. You should compete to the best of your ability because you are rewarded based on how much money you have at the end of the game.

Things you will need to start

- Money
- Token
- Dice

General Rules

- Rolling doubles means you can roll again (roll doubles three times and go to jail!)
- You always have to wait your turn to complete tasks except when building houses/hotels
- You can auction the last building and once all buildings are gone you can't buy more.
- You can mortgage property- can't collect rent or build when mortgaged- information on back of card

Spaces

Go- Collect 200 dollars when you pass go

Chance/Community Chess- Do what the instructions say

Income tax/luxury tax- pay that amount to the bank

Free parking- relax, nothing happens

Just visiting- relax, nothing happens

Go to Jail- game continues as normal, you can't move until you do one of the following:

- Pay 50 dollars at start of next turn and roll
- Use a get out of jail free card at next turn
- Roll doubles (can attempt this 3 times before having to pay 50 dollars)

Cards, Building, and Rent

Buying- When you land on a street (card) that no one owns, either buy it or put it up for auction starting at 10 dollars. If no one wants the property then it doesn't have to be bought!

Building

- Obtain complete color sets to increase rent

- Build houses once you have a full color set (don't have to wait your turn for this). You must build houses evenly on each street before you can add a second house.
- Hotels can be built once you have four houses built. Only one per street.

Rent- when you land on a street (card) that someone else owns you must pay them rent shown on the street's title card.

- The number of railroads owned changes the rent owed (look at card)
- The number of utilities owned changes the rent owed- roll the dice: 1 utility means 4x the dice roll, 2 utilities means 10x the dice roll

Deals and Trades

- You can buy, sell, or swap property at any time
- Sell all buildings on a color set before you can trade a street
- Property can be traded for money, other property or other cards
- Mortgaged property can be traded but the new owner must repay the mortgage (pay the bank the mortgaged cost of keep the mortgage (pay the bank 10% of the mortgage value now)

To Begin Play

1. Each player rolls the dice, and the highest roller goes first
2. Roll both dice
3. Move forward that number of spaces and do what the spaces asks or buy the spot.
4. The next player can take his/her turn