FRIENDSHIP AT FIRST SIGHT:
THIN SLICES IN OBSERVING RAPPORT AND FRIENDSHIP POTENTIAL
IN INITIAL INTERACTIONS

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Abstract

The purpose of the current study is to investigate the speed and accuracy of impressions in initial interactions. Researchers have demonstrated that observers can form accurate impressions of a variety of phenomena (e.g., personality traits) using thin slices of behavior. However, some relational phenomena, such as rapport and friendship potential, may not be available at the onset of an initial interaction and may, instead, take time to develop throughout the interaction. In the present study, observers formed impressions of interactions from 30 or 60 seconds of observation, which were taken from either the beginning or ending location in the interaction. Inaccuracy of observers’ impressions was measured as a difference between interactants’ self-reported extraversion, rapport, and friendship potential, and observers’ impressions based on video clips of the interactions. It was predicted that observers’ inaccuracy of rapport and friendship potential would decrease with extended observation lengths, or when observations were made at the end of the interactions; however, the predictions were not supported. There was mixed support for differences in phenomena, in that observers were more inaccurate in their impressions of rapport and friendship potential than extraversion in some interactants, yet they were more inaccurate in their impressions of extraversion than rapport and friendship potential in other interactants. Overall, there is very limited support that observers’ accuracy depends on the stable or developmental nature of the phenomena.

Keywords: thin slices, initial interactions, impression formation, personality, rapport, friendship potential
Chapter 1. Theoretical Framework

As soon as I saw you, I knew a grand adventure was about to happen.

—A.A. Milne, Winnie-the-Pooh

Every friendship begins with an initial interaction between strangers. Individuals likely encounter countless new people daily, each of whom may have the potential to develop into a relationship. Within initial interactions, individuals form impressions or perceptions of others. These impressions are likely formed quickly and automatically (Bargh & Pietromonaco, 1982), and may help individuals to predict positive or negative relational outcomes (Sunafrank, 1986). Accuracy, or the validity of impressions, may allow individuals to choose to develop relationships with potential relational partners who are more likely to lead to positive relational outcomes, resulting in higher overall efficiency in interactions. Conversely, in extreme or threatening situations, the inaccuracy of impressions may lead to harmful choices, which may even result in life or death consequences. The speed and accuracy of the impression formation process serves a necessary function in human social interaction.

Researchers in the area referred to as thin slices of behavior have supported the notion that it is possible for individuals to form accurate impressions of others based off of brief observation (Ambady & Rosenthal, 1992). Research in the thin slice paradigm has investigated the length and location of thin slice observations in regard to the accuracy of impressions for a variety of phenomena. In thin slice studies, sample length typically ranged from less than a minute to over five minutes of observation (Ambady & Rosenthal, 1992). Location of the thin slice observation could also range from the beginning, middle, or end of the interaction (e.g., Ames, Kammrath, Suppes, & Bolger, 2009; Carney, Colvin, &
Hall, 2007; Grahe & Bernieri, 1999; Place, Todd, Zhuang, Penke, & Asendorf, 2012). The general conclusion is that individuals are able to form accurate impressions of others from observations of thin slices of behavior.

Although thin slice impressions have been applied to a variety of judged constructs or *phenomena*, including personality, trustworthiness, sexual orientation, psychological state, and professional competence (Ambady, Hallahan, & Conner, 1999; Ambady & Krabbenhof, 2006; Ambady & Rosenthal, 1992, 1993; Carney, Colvin, & Hall, 2007; Fetchenhaur, Groothuis, & Pradel, 2009; Oltmanns, Friedman, Fielder, & Turkheimer, 2004), these phenomena are consistent or *relatively stable* throughout the interaction (Allport & Vernon, 1933). However, some phenomena may be *developmental* by nature and may take more time to assess in an interaction. It remains unclear whether the accuracy of thin slice impressions will change depending on the nature of the phenomena.

Relational development theorists suggest that individuals generally require time to establish a friendship. Rather than forming instantaneous relationships, individuals may develop *rapport*, or a sense of connection with the other person (Tickle-Degnen & Rosenthal, 1990) and may use that to assess the potential of a relationship. Rapport, or a sense of smoothness, efficiency, and synchrony, is indeed associated with the development of relationships (Knapp, Vangelisti, & Caughlin, 2014). However, due to the developmental nature of the friendship formation process, information regarding rapport and friendship potential may not be available at the beginning of an interaction. Thus, the overall length and location of thin slice observations, mediated by the developmental nature of these phenomena, may affect accuracy in impressions of friendship development in initial interactions.
The goal of the current study is to determine if people can truly detect friendship potential in initial interactions from “first sight”. To this end, I will provide an overview of the landscape of impression formation. Then, I will discuss the thin slice paradigm, focusing specifically on length and location of thin slice observations in regard to accuracy of impressions. Finally, I will discuss the nature of phenomena and extend the thin slice paradigm to development of friendships.

**Impression Formation**

An impression, also referred to as interest (Fiske & Taylor, 1991), is a holistic perception or collection of feelings or ideas that an individual has about an object or another individual. People form impressions continuously as they interact with the world around them, and many impressions are formed almost instantaneously (Bargh & Pietromonaco, 1982). In impression formation, accuracy, or the degree to which an assessment is correct, means that the impression that is formed is valid in comparison to the individual’s true state.

The spontaneity and accuracy of impression formation may be the result of an evolutionary predisposition. Humans are motivated to survive and reproduce and evolutionary psychologists believe that the impression formation process may have evolved to facilitate fitness-enhancing social behavior (Schaller, 2008). For example, individuals who quickly form impressions and accurately recognize a threat would be more fitted for their environment and would be more likely to survive and reproduce than individuals who have trouble forming impressions. People, then are functionally motivated to form impressions and, as Asch (1946) put it, “We look at a person and immediately a certain impression of his character forms itself in us” (p. 258).
Additionally, initial impressions may also serve a function in social relationships. According to predicted outcome value theory (Sunafrank, 1986), if an individual’s impression and expectations for another person’s behaviors are associated with positive outcomes, then the individual will be motivated to seek more information and develop a relationship with that person. Conversely, if the impression that is formed for outcomes are perceived to be negative, the individual would not have a desire to engage in further relational development (Sunafrank, 1990). Sunnafrank and Ramirez (2004) found empirical support for this notion by demonstrating that perceptions of positive outcome value formed by students in initial conversations on the first day of class were associated with closer seating arrangements at the end of the semester. In this way, impressions influence the development of relationships between people.

There are two general factors upon which individuals may rely in impression formation (Fiske & Taylor, 1991). The first, and most obvious factor, is that individuals form impressions based on the person and the situation. These cues can be directly observable within the environment (e.g., presentation and behavior) or assumed by the individual (e.g., group membership and biases). Goffman (1959) described a world full of strangers as bereft of details, yet rich in social information. Individuals convey important information about their likes and dislikes, emotions, personal characteristics, and relationships to others through their verbal and nonverbal behavior (Lakin, 2006). Everything from the words people say, to their vocal qualities, body movement, eye behavior, and to their use of space, time and touch, can be used as cues to form impressions by others.
Second, the impression formation process is also affected by cognition and motivation. Humans have bounded rationality or limited cognitive resources (Kahneman, 2003) and do not possess the capabilities to consciously and actively seek all the information necessary to develop expectations about behaviors for every individual they encounter (Lakin, 2006). A single individual could encounter a multitude of strangers daily on the bus, at work or at school, during meals, daily activities, or from friends or other individuals. Although individuals are sometimes mindful regarding the impressions that they form, the widely accepted belief is that most impressions are formed automatically (Bargh & Chartrand, 1999). Some stimuli in the environment may not even capture the awareness of the individual, yet they are still stored and processed (Baumeister & Bargh, 2014). Individuals are able to infer meaning from these cues and form overall impressions.

**Thin Slices**

As a result of the functional and social motivations discussed, individuals naturally and spontaneously process cues to form impressions of others. One line of research that has demonstrated the quick and accurate capabilities of impression formation is *thin slices* of behavior. Researchers have demonstrated that individuals are capable of forming relatively accurate impressions of others based off of limited observation. Limited observation, or a “thin slice”, is defined as a “brief excerpt of expressive behavior sampled from the behavioral stream” (Ambady et al., 2000, p. 203). These thin slices were shown to correspond with overall behavior. For example, Murphy (2005) demonstrated that nonverbal behavioral cues coded from 1-minute long thin slices are strongly correlated with cues coded from full 15-minute observations. According to Weisbuch and Ambady (2011), the underlying belief is that by sampling brief instances of expressive behavior,
thin slices capture chronic, reliable, and stylistic information regarding the true internal states of another.

The supposition that it is possible to get a sense of the overall person based off of a sample of behavior has been around for decades. Allport (1937) believed that a person’s expressive behaviors could serve as indicators of a person’s characteristic pattern of thought, emotion, and behavior. Allport and Vernon (1933) defined expressive behavior as “individual differences in the manner of performing adaptive acts, considered as dependent less upon external and temporary conditions than upon enduring qualities of personality” (p. 23). Similarly, Goffman (1959) suggested that there is a connection between the characteristics of people and the impressions of them that are formed. He used the concept of “displays”, or behaviors that signal information rapidly and efficiently to explain the accuracy of impressions that are quickly formed.

As a consequence, observers may intuitively evaluate expressive behaviors or displays using “effortless attention” to accurately form judgments of others (Ambady, 2010, p. 276). A number of studies have demonstrated this notion through the use of thin slice observations in forming impressions. In the typical paradigm for thin slice research, observers are asked to form impressions of various phenomena in short samples of targets’ behavior. If the impressions are satisfactorily reliable, they can be used to “postdict, predict or paridict the criterion variable” (Ambady & Rosenthal, 1992, p. 257). Within the thin slice paradigm, components including slice length, location, and phenomena of the observation may differ and potentially affect the accuracy of the thin slice impressions.

**Slice length.** In forming impressions of others, one would intuitively assume that larger slices of behavior with longer observation length should, by definition, contain more
information and would therefore be more indicative of overall behavior. However, thin slice research has challenged this notion by demonstrating that people can gather information about others’ patterns of behavior very quickly. A meta-analysis by Ambady and Rosenthal (1992) found that the social psychological states, clinical outcomes, and deceptiveness of relative strangers could be accurately ascertained from thin slices of under 30 seconds to five minutes of interaction. The accuracy from observations of thin slices of interaction did not significantly differ from observations of longer lengths (Ambady & Rosenthal, 1992).

Overall, research has indicated that these brief thin-slice encounters contain enough information to accurately form assessments of others. Previous studies showed that observers are able to accurately judge phenomena from a variety of observation lengths. For example, accuracy in judgments has been demonstrated for thin slice observations taken from the first five minutes (Curhan & Pentland, 2007), from under around two minutes (Kaul and Schmidt, 1971), and from 60-seconds of observation (Ames, Kammrath, Suppes, and Bolger, 2009). Many studies have even demonstrated the accuracy of ratings from less than a minute of observation (Ambady & Gray, 2002; Ambady, Hallahan, & Conner, 1999; Ambady & Krabbenhoft, 2006; Ambady & Rosenthal, 1993; Fetchenhaur, Groothuis, & Pradel, 2009; Grahe & Bernieri, 1999; Oltmanns, Friedman, Fiedler, & Turkheimer, 2004; Place, Todd, Zhuang, Penke, & Asendorph, 2012; Saville & Balas, 2014).

Despite these seemingly consistent findings, Carney, Colvin, and Hall (2007) recognized a lack of consensus regarding thin slice observation length and empirically tested varying observation lengths of 5, 20, 45, 60, and 300 seconds to determine possible changes on accuracy. The researchers found that for most measured constructs, accuracy
did not increase with observation length. However, the accuracy of a few measured constructs did slightly increase from 5 to 60 seconds of observation. Based on these findings, Carney et al. concluded that 60 seconds of observation provides the optimal ratio between accuracy and slice length for a five-minute interaction.

Although the pervasive focus within the thin slice paradigm is on slice length alone, the length of observation is not enough to determine whether a particular observation length should be considered a thin slice. For example, three minutes could potentially be long or short, depending on the comparison. Place, Todd, Zhuang, Penke, and Asendorpf (2012) would not have considered a 3-minute observation to be a thin slice of behavior because in their study, three minutes constituted the entire length of the interaction. Conversely, Borkenau, Mauer, Riemann, Spinath, and Angleitner (2004) would argue that in their study, three minutes should be considered a thin slice of behavior because impressions from 3-minute observations were compared to impressions from over 60 minutes of total interaction. In this example, three minutes of observation would constitute about 5% of the criterion judgment in one study, but 100% of the criterion in another. As opposed to relying on length of observation alone, the length of a thin slice observation should be considered relative to the length of the overall criterion.

One common method of relating thin slice judgments to the overall criterion is to compare brief observations to the reports of “knowledgeable informants” or acquaintances who have past experience with the target participant. Knowledgeable informants likely have hours, or even up to a lifetime of experience with participants. For instance, Borkenau et al. (2004) and Carney et al. (2007) used ratings from acquaintances and participants’ self-reports as the criteria for accuracy. In these studies, brief observations from thin slices
would be minute when compared to the relational experiences of knowledgeable informants. If knowledgeable informants had at least 20 hours of experience with the participants, the ratio of thin slice observations, even up to 12 minutes in length, theoretically becomes less than 1% of the criterion. Other studies that compared thin slice evaluations to longer interactions of about an hour also resulted in slice lengths that were under 1% of the criterion (Ambady & Gray, 2002; Ambady, Hallahan, & Conner, 1999; Ambady & Krabbenhoft, 2006; Ambady & Rosenthal, 1993).

If, instead of knowledgeable informants, the overall interaction length serves as the criterion for accuracy, thin slice length has generally been kept at less than 15% of the total interaction (Ames, Kammrath, Suppes, & Bolger, 2009; Fetchenhaur, Groothuis, & Pradel, 2009; Grahe & Bernieri, 1999; Place, Todd, Zhuang, Penke, & Asendorph, 2012). For instance, Place et al. (2012) used 10-second thin slice observations, which corresponded to less than 6% of the total 3-minute interactions. Curhan and Pentland (2007) used 5-minute observations, corresponding to about 11% of the total 45-minute interactions. Even the majority of the 1-12 minute thin slices used in Borkenau et al. (2004) fell well under 15% of the total 60 minutes. In summary, based on the information in the current literature, almost any slice length has the potential to be considered a thin slice when the observation length is less than about 15% of the total criterion length.

**Slice location.** The thin slice paradigm utilizes a brief excerpt of behavior to generalize impressions to the overall interaction stream. The implicit logic within thin slice literature is that it is possible to form accurate impressions from brief observations if the enacted behaviors that serve as cues for the judged phenomenon are available throughout the interaction. The cues are believed to be consistent throughout the interaction, and as a
consequence, this belief suggests that thin slice observations may be sampled from anywhere in the behavior stream and still be accurate.

Based on the current literature, it seems that there is an assumption that the location of a thin slice observation, taken from the beginning, middle, or end, of the interaction is irrelevant to the accuracy of impressions that are formed. Many thin slice researchers have disregarded differences of slice locations and instead opted for consistency of length and location. For example, Ames et al. (2009) utilized thin slices from the first 60 seconds in the beginning of the interaction, Place et al. (2012) demonstrated accuracy from 10-second video clips taken from the exact middle of the interaction, and Grahe and Bernieri (1999) found that judges were accurate from observations of the second to the last 30-seconds of an interaction. Ambady and Krabbenhoft (2006) even demonstrated the accuracy of impressions formed from thin slice observations of random clips throughout the interaction. In fact, most studies to date have not included location of observation in their design or analyses and as a result, may be misleading about the unimportance of location through their inattention.

Carney et al. (2007) empirically tested the location of thin slice observations of the personality, affect, and intelligence of video participants. The results demonstrated that when observation lengths were longer than 45 seconds, judges were generally able to form accurate impressions of most of the Big Five personality traits and intelligence of a video participant, regardless of the slice location in the video. However, for a number of judged constructs (e.g., extraversion, openness, conscientiousness, agreeableness, intelligence, and affect) accuracy was highest for observations taken from the middle or third minute of
interaction. Considerable accuracy was also reported for observations of the last or fifth minute.

Currently, there remains some confusion about whether location of observation, as well as overall observation length, affect the accuracy of impressions formed from thin slices. After reviewing the disparate findings, an important potential mediator that may be overlooked is the nature of the construct or phenomena that is being judged. As argued previously, the theoretical foundation of the thin slice paradigm is that thin slice observations capture chronic, reliable, and stylistic information regarding the true internal states of another (Weisbuch & Ambady, 2011). Phenomena that are not static, chronic, and reliable may not fit this underlying theoretical foundation of the thin slice paradigm. According to Carney et al. (2007), “Future research will benefit from studies that evaluate a wide range of constructs in order to develop parameter estimates for the independent variables we and others have begun to study” (p. 1070). Thus, whether or not slice length and location affect the accuracy of impressions that are formed may depend on the nature of the judged phenomena.

**Stable phenomena.** Stable phenomena are available throughout an interaction and are unlikely to change during the interaction. The consistency of stable phenomena allows individuals to form accurate overall impressions, regardless of observation length or location, by sampling a thin slice of behavior. Relatively stable phenomena may include personality, personality disorders, trustworthiness, intelligence, sexual orientation, and professional effectiveness in counseling, teaching, and sales (Ames, Kammrath, Suppes, & Bolger, 2009; Ambady & Gray, 2002; Ambady, Hallahan, & Conner, 1999; Ambady & Krabbenhoft, 2006; Ambady & Rosenthal, 1992, 1993; Borkenau, Mauer, Reimann, Spinath,
Personality traits. According to Bem and Funder (1978), personality is an “individual’s characteristic pattern of thought, emotion, and behavior together with the psychological mechanisms - hidden or not - behind those patterns” (p. 1). In making personality assessments, people form impressions by discerning the target’s unique pattern of behavior and motivations through interaction or observation. Although there are various traits which comprise of an individual’s personality, (e.g., the five-factor or “Big Five” traits of neuroticism, extraversion, openness, agreeableness, and conscientiousness), and individuals may sometimes try to manage the way that others perceive their personality (e.g., when engaging in high impression management such as a job interview), overall patterns of behavior may be unlikely to change within everyday interactions. Thus, personality traits may be relatively stable phenomena which are unlikely to be affected by length or location of thin slice observation.

For example, Ames et al. (2009) demonstrated that observers could accurately report personality assessments of another individual using the five-factor model from 60 second clips taken from 15- minute interviews. Oltmanns et al. (2004) found that judges accurately assessed military recruits’ Big Five personality traits, physical attractiveness, and likeability from 30-second excerpts of behavior. According to a meta-analysis by Harrigan et al. (2004), participants were able to accurately determine trait anxiety from 30-second silent video clips of people discussing various life events. Borkenau et al. (2004) and Carney et al. (2007) found that impressions of participants’ intelligence could also be
accurately estimated when compared to psychometric measures and tests, based off of limited observation.

Researchers have demonstrated empirical support for the stability of personality throughout interactions. Borkenau et al. (2004) found that people can form accurate evaluations of the Big Five personality traits of a zero-acquaintance target, based off video observations ranging from an average of 1-12 minutes in length. The personality assessments by judges who viewed thin slices were just as accurate as evaluations by individuals who had more experience with the target. Carney et al. demonstrated the stability of personality assessments of the Big Five traits at slice lengths of 5, 20, 45, 60, and 300 seconds taken from the beginning, middle, and end of the interactions.

Overall, the studies demonstrated that observers were able to form accurate impressions of the Big Five personality traits (Ames et al., 2009; Borkenau et al., 2004; Oltmanns et al., 2004). As stated above, observations in the thin slice paradigm should ideally capture chronic, reliable, and stylistic information regarding the true internal states of another (Weisbuch & Ambady, 2011). A person’s personality traits are thought to be that person’s characteristic patterns of behavior that remain relatively stable throughout an interaction (Allport, 1937), therefore, evaluations of personality based off of thin slices should be accurate regardless of slice length and location.

The trait of extraversion refers to the extent to which an individual is outgoing and social (Costa & McCrae, 1992). Because of this, extraversion, in particular, may be more apparent within a social interaction to observers than other traits. Carney et al. (2007) reported the strongest correlation between observers’ ratings and the criterion for extraversion, as compared to the other Big Five traits, for varying slice lengths and slice
locations. Thus, it is predicted that evaluations of extraversion based off of thin slices of behavior will be accurate regardless of slice length and location. In other words, there will be no difference between observers’ accuracy of extraversion for brief and extended lengths of thin slice observations, and there will be no difference among observers’ accuracy of personality assessments for beginning and ending locations of thin slice observations within interactions.

**Stable relational phenomena.** Although thin slice methods are often cited and utilized as a framework in impression formation and nonverbal communication research (e.g., Grahe & Bernieri, 1999; Manusov, in press), there have been relatively few studies that have applied thin slices to relational phenomena. In the few that have, Carrere and Gottman (1999) predicted marital outcomes over a six-year period from the arguing and communication patterns found within the first three minutes of recorded discussion. Ambady and Gray (2002) demonstrated that judges who were shown 15-second silent videos of target participants, sitting side-by-side during a brief discussion, were able to accurately determine the nature of relationship between romantic, and platonic relationship partners, and strangers. Saville and Balas (2013) demonstrated that personal familiarity was detectable within two 6-second slices of interaction. These findings suggest that personal familiarity and relational status can be accurately observed from observations of thin slices of behavior.

Scholars believe that as people become acquainted with one another, they become increasingly biased by their evaluations of their relationship and expectations (Knobloch & Soloman, 2002). Within developed relationships, the expectations and behaviors of interaction partners may not change as much throughout a given interaction. In these
situations, relational information may become embedded in the behavioral stream. Although thin slice observations were demonstrated to be accurate in impressions of personal familiarity and relational status, these phenomena may be relatively stable within a single interaction. Familiarity between relational partners is usually based on a history that has developed within a relationship and is unlikely to change significantly throughout a brief interaction.

Researchers who have investigated thin slices in relational phenomena to date claim, consistent with thin slice reasoning, that if the expressive behavior of relational phenomena that is sampled contains diagnostic information taken from within the behavioral stream, then more behavior is not necessarily more informative (Grahe & Bernieri, 1999). They argue that the stability of the phenomena makes it possible to form the same impression based off of less information. This argument is based on the assumption that all behavior is stable and enacted consistently throughout interactions. However, not all phenomena remain stable during an interaction. The conclusion about the lack of importance of length and location of thin slice observations on accuracy may change depending on the nature of the phenomena.

**Developmental phenomena.** As opposed to relatively stable phenomena, such as personality, which remain relatively unchanging within interactions, some phenomena may be more dynamic over time. These phenomena may not be available at the onset of an interaction because they may take time to develop within an interaction. For instance, there are a few phenomena for which thin slice impressions have demonstrated accuracy, but have generated limited support. Carney, Colvin, and Hall (2007) found that impressions of affect-based phenomena became more accurate with longer interaction.
Observers were not able to accurately detect both positive and negative affect at levels above chance when slices were just 5 seconds in length; however, they were able to do so once observation length increased to 20 or more seconds.

Additionally, although Curhan and Pentland (2007) demonstrated that observers could accurately predict negotiation outcomes using thin slices from a dyad’s conversational dynamics in the first five minutes of a negotiation, the developmental nature of the phenomena may have been masked by providing enough time for the phenomena to develop within five minutes. In these cases, observers were able to generate accurate impressions of these phenomena; they just required longer observations in judging these traits. The increases in accuracy of some impressions with increased exposure to thin slices of behavior support the claim that certain phenomena may take longer to develop than others.

A possible explanation for the mixed findings may be due to the developmental nature of the phenomena itself. There may be a developmental characteristic within the phenomena that affects the accuracy of thin slice impressions. This developmental nature may also affect thin slice impressions in relationship formation constructs such as rapport and friendship potential.

Individuals are motivated to form relationships but they are not capable of forming relationships with every person who is encountered. Initial impressions influence a perceiver’s desire to interact with another (Zebrowitz, 1990). People may predict which initial interactions will be associated with positive outcomes, and deem these individuals as having friendship potential. Individuals who meet each other for the first time may rely heavily on their initial impressions of for future decisions.
Relational development theorists might suggest that strangers rarely form relationships on the spot, but generally require more exposure time to accurately predict relationship potential. In initial interactions, individuals may instead assess information regarding rapport. Rapport describes the relation or connection between interactants and may be associated with the levels of harmony, conformity, accord, and affinity within groups or dyads (Bernieri, 2006). The three main components of rapport are positive affect, mutual attention, and interpersonal coordination (Tickle-Degnan & Rosenthal, 1990).

Rapport is an important aspect of initial interactions that may be associated with friendship potential. According to Knapp, Vangelisti, and Caughlin (2014), smoothness, efficiency, and synchrony in interactions are associated with the development of relationships. This quality of interaction may be generalized to the future relationship, thus, rapport within initial interactions may serve as an indicator of future friendship potential.

**Hypothesis 1:** There will be a positive linear relationship between observers’ ratings of rapport and observers’ ratings of friendship potential.

According to social penetration theory (Altman & Taylor, 1973), interpersonal relationships develop over time. Intimacy, or a sense of closeness, with another person primarily occurs through self-disclosure, or the revelation of previously unknown information, and is often reciprocated. The exchange of information, expressions of positive and negative affect, and participating mutual activities can lead to social penetration and higher feelings of intimacy in a relationship. Under social penetration theory, interpersonal relationships are believed to develop along the two dimensions of
breadth and depth. The breadth of information describes the amount of interaction and exchange which occurs over time, and the depth of penetration describes the degree of intimacy within an interaction or exchange.

Individuals may be aware that there is a lot of undisclosed information in initial interactions. The discovery of critical pieces of information may lead to a drastic change or turning point in an individual’s relationship with another (Baxter & Bullis, 1986) and nonverbal cues can often act as triggers for these turning points (Docan-Morgan, Manusov & Harvey, in press). Since there exists more information to discover about another person than it is possible to gather within initial interactions, social penetration theory would suggest that it is rare for individuals to know immediately whether or not they’d like to engage in a relationship.

When two individuals experience high amounts of rapport, they may be more likely to report higher levels of attentiveness and positivity towards that other person (Tickle-Degnen & Gavett, 2003). Conversely, if individuals do not experience any connection (or at least the possibility of a connection) within their initial interactions, the probability of that pair forming a relationship through subsequent interactions is low. As a result, rapport may be particularly important in unacquainted individuals who are interacting for the first time. In initial interactions, rapport may develop depending on the flow of the interaction, yet, the required time that it takes to form these impressions of is unknown.

Grahe and Berniari claim that impressions of rapport in an interaction can be accurately observed through thin slices of behavior. According to Berniari, there is "little evidence to suggest that increasing the amount of behavior coded from 1 minute to 5 minutes to 5 hours increases the predictive validity or functional utility of any nonverbal
Grahe and Bernieri (1999) applied thin slices in judging rapport by asking participants to interact together planning a trip around the world for up to 15 minutes, then complete a questionnaire assessing the quality of the interaction. They found that judges were able to accurately rate interaction quality or rapport from 30-second silent video thin slices taken from the second-to-the-last minute of the interaction.

Although the researchers demonstrated accuracy in judging rapport from thin slices taken from the end of an interaction, it may not be appropriate to generalize this accuracy to accuracy in impressions of friendship development formed from all thin slices of behavior, especially those taken from the beginning of interactions. As opposed to personality traits, rapport is not an internal state that is socially embedded within the behavioral stream of the individual. Instead, rapport is an interpersonally defined construct that must be developed within the flow of the interaction. If the target construct takes time to develop throughout the interaction, then thin slice observations may not predict that construct accurately or quickly.

Due to the developmental nature of relationships, individuals may be uncertain about friendship potential early on in initial interactions. People may require more exposure time to accurately assess friendship potential within interactions and may instead, rely on rapport as an indicator. This information about rapport and friendship potential may not be available at the onset of an interaction, or may take longer to develop and stabilize in an interaction. Thus, the length of thin slice observation may affect the accuracy of observers’ impressions of relationship development such as rapport and friendship potential.
**Hypothesis 2:** Observers’ accuracy in impressions of (a) rapport and (b) friendship potential will be improved with longer as compared to brief lengths of thin slice observations.

In addition, if a particular phenomenon is developmental, then the location of the slice that is sampled may affect the impression that is formed by observing that sample. Place at al. demonstrated that observers could accurately ascertain relationship potential in a speed-dating interaction by the midpoint (i.e., a minute and a half into) of the interaction. When Grahe and Bernieri (1999) investigated rapport in thin slices of behavior, observers’ judgments were made from samples of behavior that were taken from the end of interactions. In these studies, rapport and relationship potential may have developed by the time the observations were made. Yet, social penetration theory suggests that impressions of relationship formation phenomena are not immediate. Thus, impressions of relationship formation phenomena that are formed from thin slice observations may be less accurate at the beginning of interactions than impressions formed from thin slices taken from the end.

**Hypothesis 3:** Observers’ accuracy in impressions of (a) rapport and (b) friendship potential will be improved with ending compared to beginning locations of thin slice observations in interactions.

Personality assessments, particularly extraversion, have been demonstrated to be relatively stable, and relational phenomena may be more developmental within an interaction. Thus, based on brief observation lengths, observers should form more accurate impressions of relatively stable phenomena, such as extraversion, as opposed to developmental phenomena, such as rapport and friendship potential.
**Hypothesis 4**: Observers will be more accurate in impressions of extraversion than in impressions of (a) rapport and (b) friendship potential from brief thin slice observations. In addition, based on thin slices taken from the beginning of interactions, observers should form accurate impressions of stable phenomena, such as extraversion, but may not form accurate impressions of developmental phenomena, such as rapport and friendship potential.

**Hypothesis 5**: Observers will be more accurate in impressions of extraversion than in impressions of (a) rapport and (b) friendship potential from thin slice observations in the beginning location of interactions.
Chapter 2. Method

Phase 1- Video Stimulus Interactions

The goal of this study was to investigate the accuracy of impressions of extraversion, rapport, and friendship potential using the thin slice paradigm. In phase one of this experiment, individuals were recorded during their initial interaction with a stranger and self-reported their impressions of the judged phenomena. Their interactions were then used as the stimuli for thin slice observations.

Video interactants. The individuals in the video stimuli were 10 female undergraduate students enrolled in lower-division communication courses at a large Pacific research university. All female dyads were recruited in an attempt to control for any potential gender effects in mixed-gender dyads. The video interactants ranged from 18 to 24 years of age ($M=19.7$, $SD=2.00$). Four (40%) of the interactants were mixed ethnicity, four (40%) were Asian, one (10%) was Caucasian/Non-Hispanic, and one (10%) was Hispanic. Video interactants received partial course credit or extra credit for their participation.

Interaction procedure. Individuals in the video interaction signed up through Sona, an online study recruitment website. They were informed that the nature of the project was to assess impressions in initial interactions and that they would be video-recorded while meeting another person for the first time. They were also told that their interactions might be viewed by others. If they chose to participate, video interactants were presented the consent form (see Appendix A) with the entire project description, explanation of the privacy concerns, benefits, and risks of participation in the study, and
the researcher’s contact information. If the video interactants consented to participate in the study, they signed up for an available timeslot on Sona. The researcher matched participants’ availabilities together and if matched, video interactants were notified of their appointment time.

Video interactants reported to the lab at their appointment time. Although previously consented, video interactants re-consented to the interaction procedure by signing the form provided (Appendix B). They were asked to read the consent form and answer “yes” or “no” to (a) understanding that their interactions would be video-recorded and (b) understanding that any information they share during their interactions might be seen by others. The video interactants were reminded that they could opt out at any time and were instructed to avoid disclosing any information that they were not comfortable sharing. The researcher double-checked that the interactants did not have previous experience their interaction partners, then they were instructed to meet and interact for about 10 minutes in a getting-to-know-you situation.

The video interactants were told that they should interact naturally and to let the conversation wrap up when it started to die down. If the interaction continued for more than 10 minutes, interactants were given a gentle signal with a knock on the wall to begin wrapping up the conversation. The interactions ranged from 10 minutes 37 seconds to 11 minutes 28 seconds in length ($M=10$ minutes $57$ seconds, $SD=17.85$ seconds). The interactions were recorded using two cameras in the laboratory which were set-up with one camera oriented towards each partner. The videos were recorded so that only one partner of the dyad was visible at once. In this way, each of the two cameras captured the
differing perspectives of each partner in the dyadic video interaction. The camera captured the interactant’s behavior from the waist up.

Following the interaction, video interactants completed a series of questionnaires. In these questionnaires, the video interactants rated their perceptions of the interaction, including rapport (Appendix C), and friendship potential (Appendix D), as well as self-reported their extraversion (Appendix E) and demographic information (Appendix F). The questionnaire was split into three sections to avoid participant response fatigue. After completing each section, participants were given the next section of the questionnaire to complete.

Upon completing the entire post-interaction questionnaire, video interactants were debriefed. The interactants were provided the opportunity to delete their interactions to maintain their privacy; however, none opted to do so. The researcher answered any questions and video interactants were thanked for their time. The total amount of time video interactants invested in this project was approximately 30-45 minutes. The video-recordings of the interactions were used as stimuli for thin slice observations. By the end of the stimulus collection, there were five recorded dyadic interactions, taken from the perspectives of both interaction partners, for a total of 10 video interactants.

**Interactant measures.** The video interactants’ responses regarding self-reported extraversion, as well as perceptions of rapport and friendship potential, based on the interaction, were collected. Finally, video interactants provided their demographic information.
Extraversion. Video interactants’ personalities were measured using the 8-item subscale on extraversion from the Big Five Inventory (BFI) (John, Donahue, & Kentle, 1991) on 7-point scales, ranging from 1- *Strongly Disagree* to 7- *Strongly Agree*. A sample item from this scale is “I see myself as someone who is outgoing and sociable”. Distractor items (Appendix E) were included to avoid priming interactants with extraverted traits.

Extraversion has been demonstrated to have particularly high accuracy from thin slice impressions in previous studies (Borkenau et al., 2004; Carney et al., 2007). The BFI inventory was chosen for this study over another common Big Five personality inventory, Costa and McCrae’s NEO-FFI, because the goal of the BFI is to “allow efficient and flexible assessment of the five dimensions when there is no need for more differentiated measurement of the individual facets” (John & Srivastava, 1999). According to John and Srivastava (1999), the BFI has also demonstrated relatively high reliabilities, with a mean alpha of .83 (as compared to .79 for the NEO-FFI).

Cronbach’s alpha for the video interactants’ self-reports on the extraversion subscale of the BFI was .83. Table 1 provides the means and standard deviations for extraversion by video interactant. On average, the video interactants were slightly extraverted ($M = 4.78$, $SD = 1.30$).

Rapport. Following the interactions, video interactants were asked to assess rapport using Bernieri, Davis, Rosenthal, and Knee (1994)’s 18-item rapport scale. The items were measured on 7-point scales, ranging from 1- *Strongly Disagree* to 7- *Strongly Agree*. All items were assessed using the stem, “The interaction I just experienced was…” with adjectives including, “well-coordinated” and “friendly”. Bernieri et al.’s 18-item scale
was developed to assess interactions the three subcomponents of rapport in interactions: positive affect (e.g., friendly), mutual attention (e.g., involving), and interpersonal coordination (e.g., harmonious) (Tickle-Degnen & Rosenthal, 1990).

The video interactants demonstrated reliability for the 18-item rapport scale with a Cronbach’s alpha of .85. The interactants reported having overall rapport with their partners ($M = 5.82$, $SD = 0.59$). The means and standard deviations for rapport by video interactant are reported in Table 1.

**Friendship potential.** Friendship potential was measured using three items modified from Maton (1988)’s 5-item Relationship Development scale. Previous researchers reported poor reliability ($\alpha = .60$) for the full 5-item scale (Heller, Roccoforte, Hsieh, Cook, & Pickett, 1997). Sample items from the original five items included, “I would like to form a close relationship with this person”, and “I feel like a relationship with this person would be intimate”. Friendship potential was confounded with intimate relationships when Maton created the scale within a support group context. However, an unpublished study by Hashi, Tokunaga, Wharton, and Quick (2016) demonstrated that reliability of the scale increases when two items that are related to intimate or close relationships are taken out. The remaining three items were adapted for friendship development. The final scale was, “I would like to develop a friendship with this person,” “I would like to have more contact with this person,” and “I would like to interact with this person in the future,” measured on 7-point scales, ranging from 1- *Strongly Disagree* to 7- *Strongly Agree*.
Cronbach’s alpha for the three-item friendship potential scale was found to be .76. Like rapport, video interactants seem to have reported overall friendship potential with their partners \((M = 5.27, \text{SD} = 0.91)\). The means and standard deviations for friendship potential by video interactant are reported in Table 1.

**Demographics.** Video interactants reported basic demographic information about themselves. These items included gender identification, sexual orientation, ethnicity, and age.

**Phase 2- Thin Slices Observations**

After Phase 1, the video recordings of the interactions were used as the stimuli for thin slice observations. In Phase 2, the video interactions were cut into 30- or 60-second thin slice videos taken from the beginning and end of interactions. These thin slices were then consolidated into four stimulus tapes, with 10 thin slice video clips per tape. Each tape contained both partners of the five dyadic interactions, and contained videos of a particular slice length (i.e., 30 or 60 seconds of interaction). Different locations within the interaction (i.e., beginning or end) were used for each partner.

Observers came into the lab and were given instructions, then filled out a credit-granting survey. Observers were randomly assigned to one of the four stimulus tapes. They observed each of the 10 interactants and rated their impressions of the interactants’ extraversion, as well as the rapport and friendship potential of the interaction. Finally, observers reported their demographic information.

**Thin slice videos.** First, the video interactants were given a dyad label of 1-5 and a partner code of A or B to distinguish the partner on the left of the interaction from the
partner on the right, resulting in 10 unique codes for each video interactant (e.g., 1A, 3B, 4A). All 10 video interactants served as the targets for observers’ impressions. Then, to create thin slice videos, two separate locations from the video interactions were chosen to represent the beginning and end locations of the interactions. The start and end times for each interaction were determined by the researcher after cues which provided information about the location in the interaction (e.g., handshaking or waving and reactions to the researcher signaling to wrap up) were excluded. The beginning location was taken from the start of the interaction forward and the ending location was taken from the end of the interaction backward. In this way, each location within the 10-minute interactions contained unique information and did not overlap with the other.

Next, 30- and 60- second slices of silent-video interaction were taken for each video interactant at each location. Silent videos have been used in previous studies (Ambady & Gray, 2002; Ambady, Hallahan, & Conner, 1999; Ambady & Rosenthal, 1993; Fetchenhauer, Groothuis, & Pradell 2009) and were used in this study to reduce the effect of noise distractions in the lab. In addition, the findings from Grahe and Bernieri’s (1999) study suggest that the addition of the verbal channel does not increase the accuracy of perceptions of rapport in thin slice observations.

Previous research (Carney et al., 2007) demonstrated that observers were accurate with 20 and 45 seconds of observation for some impressions (e.g., affect) but not others (e.g., neuroticism). Thus, 30 seconds of observation was chosen as the thinnest slice in the present study to test some of the differences in accuracy found in previous research. In addition, Grahe and Bernieri (1999) also used 30-second thin slices in demonstrating
observers’ impressions of rapport. Ames et al. (2013) used a thin slice observation length of 60 seconds and demonstrated observers’ accuracy in impressions for all five of the Big Five traits. Place et al. (2012) found that observers were able to accurately estimate romantic interest in speed dates from thin slices taken from the location of 90-seconds into the interaction. Based on these results, 60 seconds of observation was chosen as the second slice length to capture the development of relational phenomena. Both 30 and 60 seconds of observation contained less than 15% of the total 10 minute interaction, consistent with previous research in the thin slice paradigm.

**Stimulus conditions.** The total collection of stimulus videos included 5 (Dyad: 1-5) x 2 (Partners: A or B) x 2 (slice length: 30 or 60 sec.) x 2 (slice location: beginning or end) thin slices for a total of 40 video clips. The 40 video clips were consolidated into four stimulus tapes, each containing 10 video clips. Slice length was manipulated so that half of the stimulus tapes included video clips that were 30 seconds in length, and the other half included video clips that were 60 seconds in length. Slice location was manipulated so that the stimulus tapes contained half of the video interactants in the beginning of the interactions, and the other half of the video interactants at the end of the interactions. Specifically, the four tapes contained: 1) 30-second videos with Partner A in the beginning and Partner B at the end, 2) 60-second videos with Partner A in the beginning and Partner B at the end, 3) 30-second videos with Partner B in the beginning and Partner A at the end, and 4) 60-second videos with Partner B in the beginning and Partner A at the end.

Both partners in the five video interactions of Phase 1 were rated independently in Phase 2. Because the videos were recorded so that only one partner of the dyad was visible
at once, observers could reasonably view all 10 video interactants without recognizing their interaction partners. One video clip of each of the 10 video interactants was included in each stimulus tape. The video interactant who was visible in the video served as the target for whom extraversion, rapport, and friendship potential impressions were formed and whose self-reports served as the accuracy criterion for impressions.

Although the theoretical design for the study was a 2 (slice length: 30 or 60 seconds) x 2 (slice location: beginning or end of the interaction) between-subjects design, the actual operational study design was a little more complicated. Slice length was a between-subjects factor for the stimulus conditions. Two out of the four conditions contained 30-second thin slices, and the remaining two contained 60-second thin slices. Each observer viewed video clips of the same slice length for all 10 interactions. In this study, slice location was operationalized as a within-subjects factor for each stimulus condition. Different locations in the interaction were used for each partner to further reduce the likelihood of observers recognizing the partners of the video interactants. For instance, if the stimulus condition contained Partner A in the beginning of the interaction, it would also contain Partner B at the end of the interaction and vice-versa.

Operationally, two out of the four stimulus conditions were “beginning-end,” meaning that they contained the beginning of the interaction for video interactants 1A-5A and end of the interaction for video interactants 1B-5B. The other two out of the four stimulus conditions were “end-beginning,” meaning that they contained the end of the interaction for video interactants 1A-5A and the beginning of the interaction for video interactants 1B-5B. Thus, two slice location orders (i.e., beginning-end or end-beginning)
varied between participants. The final between-subjects design was a 2 (slice length: 30 or 60 seconds) x 2 (slice location order: beginning-end or end-beginning). Specifically, the four conditions were: 1) 30-second videos with slice location order beginning-end, 2) 60-second videos with slice location order beginning-end, 3) 30-second videos with slice location order end-beginning, and 4) 60-second thin slices with slice location order end-beginning.

**Observers.** Sixty-one undergraduate students at a large Pacific research university completed Phase 2 of the study. One participant reported recognizing all 10 of the video interactants from outside the study and this participant was removed from further analysis. The resulting sample of 60 observers were randomly assigned to one of the four stimulus tapes and provided their impressions of the interactions. The observers were 33 (55%) females and 27 (45%) males. They ranged from 18 to 49 years of age and the median observer age was 20 (SD=5.70). Thirty-one (52%) observers identified themselves as Asian, 12 (20%) identified as Caucasian/Non-Hispanic, 6 (10%) as mixed, 6 (10%) as Pacific Islander, and 5 (8%) as Hispanic. They received partial course credit or extra credit for their participation.

**Observer procedure.** Observers signed up for a lab appointment through the Sona program. The laboratory for the experiment was an office that was configured to accommodate two observers at once. Each observer had his or her own desk station with a computer and mouse. Observers were oriented towards a wall, with room dividers blocking the door to reduce distractions. Appointment times were staggered in 20 minute intervals to give observers enough time to review the procedure and settle into the lab.
During their appointment, observers reported to lab and were presented with an electronic version of the consent form (see Appendix G) with a description of the study, an explanation of the benefits and risks of participation, and the researcher’s contact information. If observers consented, they were told that they would be observing 10 silent-video interactions and would provide their impressions of the video interactant in the video. They were told that they would have more than enough time to complete the study, and that they should feel free to rest their eyes or take a break when necessary. They were provided with a glass of water, and were presented reminders during the study to rest if they needed to. These precautions were taken to reduce the effects of participant fatigue throughout the procedure. Before entering the lab, observers completed a credit-granting survey. In this survey, they entered their name and last digit of their student ID (Appendix H). The purpose of the survey was to grant credit while disassociating observers from their responses in the lab.

Upon entering the lab, observers were randomly assigned to one of the four stimulus conditions. Once assigned, they read the instruction page, then were presented with the first of 10 silent-thin slice videos in the assigned condition. Prior to the start of every video, there was a three-second countdown to signal the start of the interaction. Observers were instructed to watch the video for the entire time that it was presented, and to proceed to the questions without replaying the video. They were not able to proceed to the questions until the entire video finished playing. The timing of how long observers’ remained on the video page was recorded electronically. If observers remained on the video page for longer than the condition length (e.g., 65 seconds when in the 30 second condition), these observations were excluded from analysis. Sixty observers made 10
observations each for a total of 600 observations. Of these 600, seven individual observations, from seven different observers, were excluded for violating the timing of the condition to which they were assigned.

After viewing each interaction, observers responded to 29 items about their impressions of the interactant’s extraversion (Appendix I), in addition to rapport (Appendix J) and friendship potential (Appendix K) within the interaction. The questionnaire was adapted from the same items which were completed by the video interactants. To ensure that the observers did not have prior experience with the video interaction individual, they were also asked if they recognized the person in the video. If the observers reported recognizing the video interactant, their observations were excluded from analysis. From the 600 total observations, 38 individual observations from 24 observers were excluded from analysis because observers reported recognizing the video interactant.

Following the first interaction and rating procedure, observers saw the next video clip and repeated this procedure until they viewed all 10 video interactants. The order of the video was randomized to avoid any ordering or fatigue effects. At the end of the rating procedure, observers were asked to provide their demographic information (Appendix L). Finally, observers were debriefed and thanked for their time. The total time observers invested in this study was around 30-45 minutes.

**Observer measures.** Observers’ reported perceived extraversion, rapport, and friendship potential of the video interactants, and provided their own demographic information using the same measures as the video interactants described above. The
questions were slightly modified so that the language would be consistent with third-party observations. Specifically, extraversion assessments were changed from “I see myself as someone who...” to “I see this person as someone who...” (Appendix I). The rapport inventory was changed to “The interaction this person experienced was...” (Appendix J). The three friendship potential items were changed to “This person would like to develop a friendship with the other person,” “This person would like to have more contact with the other person,” and “This person would like to interact with the other person again” (Appendix K). All scales were assessed using 7-point scales ranging from 1- Strongly Disagree to 7- Strongly Agree. Demographic information questions (Appendix L) included gender identification, sexual orientation, ethnicity, and age. The associated means, standard deviations and reliabilities for each scale (i.e., extraversion, rapport, and friendship potential) are reported in Table 2.

**Observers' inaccuracy scores.** Theoretical accuracy of the thin slice observations for each video interactant was measured as an inaccuracy score of the difference between video interactants’ ratings of each phenomenon (i.e., extraversion, rapport, and friendship potential) and observers’ ratings based on thin slice observations. First, the mean scores of extraversion, rapport, and friendship potential were calculated for each video interactant (Table 1). These scores served as the criterion scores for accuracy. Next, observers’ average ratings of extraversion, rapport, and friendship potential were calculated for each video interactant. The observers’ scores were subtracted from the video interactants’ self-reported scores to create a difference score. The absolute value of each difference score was taken; higher absolute difference scores indicated greater inaccuracy. These inaccuracy scores were used in analysis.
Chapter 3. Results

Relationship between Rapport and Friendship Potential

Hypothesis 1 predicted that there would be a positive linear relationship between observers’ ratings of rapport and observers’ ratings of friendship potential. Mean rapport and friendship potential scores were calculated for observers’ ratings of each video interactant. Pearson product-moment correlations between the observers’ mean ratings of rapport and friendship potential for each video interactant revealed moderate to large correlations. The correlation coefficients for each video interactant are reported in Table 3. The correlations ranged from .46 to .74 (df range: 49 - 57). All correlations were significant, thus as rapport increased, so did friendship potential.

Analysis Plan

Two mixed-model or repeated measures designs were conducted as the omnibus tests for each half of the remaining hypotheses. The two mixed-model or repeated measures tests were conducted for each dependent variable (i.e., rapport and friendship potential), thus there were four omnibus tests per hypothesis. In each mixed or repeated measures test, dyad (i.e., interactions 1-5) was a within-subjects factor. Video interactants 1A, 2A, 3A, 4A, and 5A, who were the partners on the left during the interaction, were analyzed in a separate test from video interactants 1B, 2B, 3B, 4B, and 5B, who were the partners on the right during the interaction, because observers were presented the beginning of the interaction for one group, but the end of the interaction for the other group. Thus, by conducting separate tests, slice location became a between-subjects factor of beginning vs end of the interaction per partner. Ratings of rapport and friendship
potential were not significantly correlated between interaction partners, thus a more complex design to account for the partner effect within a single test was not necessary.

**Slice Length Inaccuracy**

The prediction in Hypothesis 2a stated that observers’ inaccuracy in impressions of rapport would be reduced with 60 seconds of thin slice observation, as compared to 30 seconds of thin slice observation. A two-way mixed measure analysis of variance was conducted with dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) as the within-subjects factor and slice length (i.e., 30 and 60 seconds of observation) as the between-subjects factor on rapport inaccuracy. Mauchly’s test indicated that the assumption of sphericity had been violated for dyad ($\chi^2(9) = 31.38, p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .75$). There was no significant difference for slice length, Wilks’ Lambda = .33, $F(1, 45) = 0.89, p = .35, \eta^2 = .02$.

The results of the repeated measures test for Hypothesis 2a for Partner A is summarized in Table 4. Independent $t$-tests for slice length on rapport by video interactant are reported in Table 5. A second two-way mixed measure analysis of variance was conducted with dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) as the within-subjects factor and slice length (i.e., 30 and 60 seconds of observation) as the between-subjects factor on rapport inaccuracy. Mauchly’s test indicated that the assumption of sphericity was not violated. There was no significant difference for slice length, Wilks’ Lambda = .22, $F(1, 37) = 1.62, p = .21, \eta^p^2 = .04$. The results of the repeated measures test for Hypothesis 2a for Partner B is summarized in Table 4. The independent $t$-tests for slice length on rapport by video interactant are reported in Table 5. The overall tests were not significant, thus slice length did not affect observers’ inaccuracy in impressions of rapport.
In Hypothesis 2b, observers’ inaccuracy in impressions of friendship potential was predicted to be reduced with 60 seconds, as opposed to 30 seconds, of thin slice observation. A two-way mixed measure analysis of variance was conducted with dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) as the within-subjects factor and slice length (i.e., 30 and 60 seconds of observation) as the between-subjects factor on friendship potential inaccuracy. Mauchly’s test indicated that the assumption of sphericity had been violated for dyad ($\chi^2(9) = 42.14, p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .71$). There was no significant difference for slice length, Wilks’ Lambda = .93, $F(1, 45) = 3.29, p = .08, \eta_p^2 = .07$. The results of the repeated measures test for Hypothesis 2b for Partner A is summarized in Table 6. The independent $t$-tests for slice length on friendship potential by video interactant are reported in Table 7. A second two-way mixed measures analysis of variance was conducted with dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) as the within-subjects factor and slice length (i.e., 30 and 60 seconds of observation) as the between-subjects factor on friendship potential inaccuracy. Mauchly’s test indicated that the assumption of sphericity was not violated. There was no significant difference for slice length, Wilks’ Lambda = .49, $F(1, 37) = 3.92, p = .06, \eta_p^2 = .10$. The results of the repeated measures test for Hypothesis 2b for Partner B is summarized in Table 6. The independent $t$-tests for slice length on friendship potential by video interactant are reported in Table 7. Although both results approached significance, the overall tests were not significant, thus slice length did not affect observers’ inaccuracy in impressions of friendship potential.
**Slice Location Inaccuracy**

According to the predictions in Hypothesis 3a, observers’ inaccuracy in impressions of rapport would be reduced with thin slice observations taken from the end of the interaction as compared to observations at the beginning of the interaction. Because the two video interactant groups (i.e., 1A-5A and 1B-5B) were analyzed separately, the hypothesis was tested using two-way mixed measures analysis of variance with dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) as the within-subjects factor and slice location (i.e., beginning and end of the interaction) as the between-subjects factor on rapport inaccuracy. Mauchly’s test indicated that the assumption of sphericity had been violated for dyad ($\chi^2 (9) = 25.14$, $p = .003$), therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .79$). There was no significant difference for slice location, Wilks’ Lambda = .33, $F(1, 45) = 0.09$, $p = .76$, $\eta^2 = .002$. There was, however, a significant interaction effect between dyad and slice length, $F(3.17, 142.46) = 6.69$, $p = <.001$, $\eta^2 = .13$. A second two-way mixed measures analysis of variance was conducted with dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) as the within-subjects factor and slice location (i.e., beginning and end of the interaction) as the between-subjects factor on rapport inaccuracy. Mauchly’s test indicated that the assumption of sphericity was not violated. There was no significant difference for slice location, Wilks’ Lambda = .21, $F(1, 37) = 0.85$, $p = .36$, $\eta^2 = .02$. The results of the mixed measures test for Hypothesis 3a is summarized in Table 8. Independent samples $t$-tests were used to make post hoc comparisons between video interactants. The results of the $t$-tests are reported in Table 9. Overall, the tests were not significant, indicating that slice location did not affect observers’ inaccuracy in impressions of rapport.
In Hypothesis 3b, observers’ inaccuracy in impressions of friendship potential would also be reduced when thin slice observations were taken from the end of the interaction as opposed to the beginning. A two-way mixed measures analysis of variance was conducted with dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) as the within-subjects factor and slice location (i.e., beginning and end of the interaction) as the between-subjects factor on friendship potential inaccuracy. Mauchly’s test indicated that the assumption of sphericity had been violated for dyad ($\chi^2(9) = 46.63, p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser's estimate of sphericity ($\varepsilon = .68$). There was no significant difference for slice location, Wilks’ Lambda = $.93, F(1, 45) = 1.55, p = .22, \eta^2 = .03$. A second two-way repeated measures analysis of variance was conducted with dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) as the within-subjects factor and slice location (i.e., beginning and end of the interaction) as the between-subjects factor on friendship potential inaccuracy. Mauchly’s test indicated that the assumption of sphericity was not violated. There was no significant difference for slice location, Wilks’ Lambda = $.48, F(1, 37) = 1.11, p = .30, \eta^2 = .03$. The results of the mixed measures test for Hypothesis 3b is summarized in Table 10. The independent samples $t$-tests for slice location on friendship potential are reported in Table 11. Overall, the tests were not significant, indicating that slice location did not affect observers’ inaccuracy in impressions of friendship potential.

**Phenomena Inaccuracy from Brief Observation**

In Hypothesis 4a, observers would be more inaccurate in impressions of rapport than impressions of extraversion for brief thin slice observations. First, only brief (i.e., 30 second) thin slice observations were selected for analysis. The hypothesis was then tested
using a two-way repeated measures analysis of the within-subjects factors of dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) and phenomena (i.e., extraversion and rapport). Mauchly’s test indicated that the assumption of sphericity had been violated for dyad ($\chi^2 (9) = 26.06, p = .002$), therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .58$). There was a significant difference for phenomena, Wilks’ Lambda = .56, $F(1, 23) = 18.46, p < .001, \eta^2 = .45$, indicating no support in the opposite direction of the prediction. In addition, there was also a significant interaction effect between dyad and phenomena, $F(2.53, 58.10) = 8.69, p < .001, \eta^2 = .27$. The results of the repeated measures test for Hypothesis 4a for Partner A is summarized in Table 12. Five paired samples $t$-tests were used to make post hoc comparisons between video interactants. The data from these $t$-tests are provided in Table 13. The two-way repeated measures analysis of variance was repeated the within-subjects factors of dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) and phenomena (i.e., extraversion and rapport). Mauchly’s test indicated that the assumption of sphericity was not violated. There was a significant difference for phenomena, Wilks’ Lambda = .63, $F(1,19) = 10.91, p = .004, \eta^2 = .35$, in the predicted direction. There was also a significant interaction effect between dyad and phenomena, $F(1, 20) = 8.68, p = .01, \eta^2 = .30$. The results of the repeated measures test for Hypothesis 4a for Partner B is summarized in Table 12. Five paired samples $t$-tests were again used to make post hoc comparisons between video interactants. The data from these $t$-tests are also provided in Table 13. Overall, the results demonstrated limited support for the hypothesis that observers’ inaccuracy would be greater for impressions of rapport, as compared to observers’ impressions of extraversion.
According to the predictions in Hypothesis 4b, observers would be more inaccurate in impressions of friendship potential than impressions of extraversion for brief thin slice observations. Again, only brief (i.e., 30 second) observations were included in the analysis. The hypothesis was tested using a two-way repeated measures analysis of variance with the within-subjects factors of dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) and phenomena (i.e., extraversion and friendship potential). Mauchly’s test indicated that the assumption of sphericity had been violated for dyad (\(\chi^2(9) = 17.60, p = .04\)), therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity (\(\varepsilon = .71\)). There was no support for the hypothesis; however, there was a significant difference for phenomena in the opposite direction, Wilks’ Lambda = .81, \(F(1, 23) = 5.37, p = .03, \eta^2 = .19\). The results of the repeated measures test for Hypothesis 4b for Partner A is summarized in Table 14. Five paired samples \(t\)-tests were used to make post hoc comparisons between video interactants, reported in Table 15. The two-way repeated measures analysis of variance was repeated with the within-subjects factors of dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) and phenomena (i.e., extraversion and friendship potential). Mauchly’s test indicated that the assumption of sphericity was not violated. There was support for the hypothesis with a significant difference for phenomena, Wilks’ Lambda = .51, \(F(1, 20) = 18.89, p = .00, \eta^2 = .49\). There was also a significant interaction effect between dyad and phenomena, \(F(1, 20) = 24.37, p < .001, \eta^2 = .55\). The results of the repeated measures test for Hypothesis 4b for Partner B is summarized in Table 14. Five paired samples \(t\)-tests were again used to make post hoc comparisons between video interactants, provided in Table 15. Overall, there was limited support for the hypothesis.
that observers would be more inaccurate for impressions of friendship potential than impressions of extraversion.

**Phenomena Inaccuracy from the Beginning of Interactions**

Finally, according to Hypothesis 5a, observers would be more inaccurate in impressions of rapport than impressions of extraversion for thin slice observations taken from the beginning of the interaction. First, thin slice observations from the beginning of the interaction were selected for analysis. The hypothesis was then tested using a two-way repeated measures analysis of variance with the within-subjects factors of dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) and phenomena (i.e., extraversion and rapport).

Mauchly’s test indicated that the assumption of sphericity had been violated for dyad ($\chi^2(9) = 26.71, p = .002$), therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .65$). There was a significant difference for phenomena in the opposite direction than was predicted, Wilks’ Lambda = .56, $F(1, 22) = 28.41, p < .001, \eta^2 = .56$. The results of the repeated measures test for Hypothesis 5a for Partner A is summarized in Table 16. The paired samples t-tests used to make post hoc comparisons between video interactants are reported in Table 17. The two-way repeated measures analysis of variance included the within-subjects factors of dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) and phenomena (i.e., extraversion and rapport). Mauchly’s test indicated that the assumption of sphericity had again been violated for the effects of dyad ($\chi^2(9) = 22.33, p = .008$), and the interaction between dyad and phenomena ($\chi^2(9) = 17.21, p = .05$) therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .64$ and $\varepsilon = .71$). There was also a significant difference for phenomena, Wilks’ Lambda = .56, $F(1, 19) = 14.68, p = .001, \eta^2 = .44$. The results of the repeated
measures test for Hypothesis 5a for Partner B is summarized in Table 16. The paired-samples $t$-tests were again used to make post hoc comparisons between video interactants and are also provided in Table 17. Overall, there was limited support for the hypothesis that observers’ inaccuracy would be greater for impressions of rapport, as compared to impressions of extraversion.

In Hypothesis 5b, observers would be more inaccurate in impressions of friendship potential than impressions of extraversion for thin slice observations taken from the beginning of the interaction. Again, only thin slice observations taken from the beginning of the interaction were selected for analysis. Then, this hypothesis was tested using a two-way repeated measures analysis of variance with the within-subjects factors of dyad (i.e., video interactants 1A, 2A, 3A, 4A, and 5A) and phenomena (i.e., extraversion and friendship potential). Mauchly’s test indicated that the assumption of sphericity had been violated ($\chi^2(9) = 19.32, p = .02$) for the interaction between dyad and phenomena, therefore degrees of freedom were corrected using Greenhouse-Geisser’s estimate of sphericity ($\varepsilon = .72$). There was no support in the opposite direction with a significant difference for phenomena, Wilks’ Lambda $= .40, F(1, 22) = 32.43, p < .001, \eta^2 = .60$. The results of the repeated measures test for Hypothesis 5b for Partner A is summarized in Table 18. Five paired samples $t$-tests used to make post hoc comparisons between video interactants revealed significant differences in the opposite direction. The data from these $t$-tests are reported in Table 19. The two-way repeated measures analysis of variance was repeated with the within-subjects factors of dyad (i.e., video interactants 1B, 2B, 3B, 4B, and 5B) and phenomena (i.e., extraversion and friendship potential). Mauchly’s test indicated that the assumption of sphericity was not violated. There was support for the hypothesis with a
significant difference for phenomena, Wilks’ Lambda = .58, $F (1, 19) = 13.83, p = .001, \eta^2 = .42$. The results of the repeated measures test for Hypothesis 5a for Partner B is summarized in Table 18. Five paired samples $t$-tests used to make post hoc comparisons between video interactants are provided in Table 19. Overall, there was limited support for the hypothesis that observers’ inaccuracy would be greater for impressions of friendship potential than for impressions of extraversion.
Chapter 4. Discussion

Researchers have demonstrated that observers can form accurate impressions of a variety of phenomena using thin slices of behavior, or brief observations sampled from the behavioral stream. Theoretically, if the observed phenomena (e.g., personality) are stable, or available throughout an interaction, then thin slices of behavior may be sampled from anywhere in the interaction and still be accurate. However, some relational phenomena, such as rapport and friendship potential, may not be available at the onset of an initial interaction and may, instead, take time to develop throughout the interaction. It was predicted that accuracy of impressions, formed from a particular length and location of observation, may depend on the stable or developmental nature of the phenomena.

The results of the present study revealed five main findings: First, there were moderate to large correlations between rapport and friendship potential, suggesting that the two constructs are indeed associated. Second, contrary to the prediction, there was no significant difference between observers’ accuracy in impressions of rapport or friendship potential with 60 seconds of observation as compared to observers’ accuracy with 30 seconds of observation. Third, again contrary to the prediction, there was no significant difference between thin slice observations of rapport and friendship potential when taken from the end of the interaction, as compared to when taken from the beginning of the interaction. Fourth, there was mixed support for the prediction that observers would be more accurate in impressions of extraversion than impressions of relational phenomena for brief thin slice observations. Based on 30-seconds of observation, observers were significantly more accurate in impressions of extraversion than rapport and friendship potential for one half of the video interactants, yet observers were significantly more
accurate in impressions of rapport and friendship potential than extraversion for the other half of the video interactants. Finally, this pattern of mixed support was also demonstrated for the prediction that observers would be more accurate in impressions of extraversion than impressions of relational phenomena for thin slice observations taken from the beginning of the interaction, as compared to the end of the interaction. Again, observers were significantly more accurate in impressions of extraversion than rapport and friendship potential for one half of the video interactants, yet observers were significantly more accurate in impressions of rapport and friendship potential than extraversion for the other half of the video interactants.

**Rapport and Friendship Potential**

Although directional influence could not be determined, there was a positive linear relationship between observers’ impressions of rapport and friendship potential in the interactions. All ten correlations for the video interactions were statistically significant (Table 3). In addition, there was a moderate to large amount of shared variance between the two constructs (Cohen, 1992). The results demonstrated a relatively strong association between rapport and friendship potential, which may be attributed to the relational nature of both phenomena.

**Slice Length and Inaccuracy**

Overall, there was no support for the hypothesis that slice length would affect accuracy in impressions of rapport and friendship potential. Although three of the ten individual tests for video interactants revealed significant differences in the right direction, the overall test was not significant. It cannot be assumed that the individual differences that were found were due to true differences, as predicted, because the differences could
also be due to random error, given the limited number of dyads in the study. Collecting more dyadic interactions would reduce the variability in the sample and increase power of the overall tests. In addition, there were a number of participants who were dropped from the study due to not following directions or reported that they recognized the video interactants. As a result, the sample size for observers was also limited and may have contributed to the lack of significance.

It is also possible that observers’ accuracy in impressions of rapport and friendship potential are affected by the length of the thin slice observation but that the slice lengths used in the present study were not “thin” (i.e., brief) enough to capture rapport and friendship potential before it was developed. If rapport and friendship potential are indeed developmental in nature within an interaction, then there may be significant differences in observers’ accuracy when thin slices are observed. Perhaps, brief observation lengths of 5 to even 15 seconds of observation may reveal significant differences in accuracy of rapport and friendship potential through the development of the phenomena.

Conversely, it is also possible that the slice length of observation was not “thick” (i.e., extended) enough to capture rapport and friendship potential after it was developed. Observers might have required more than 60 seconds to accurately assess rapport and friendship potential. However, this explanation may be unlikely as Place et al. (2012) demonstrated that observers could accurately estimate relationship potential from 10 seconds of interaction, and Grahe and Bernieri (2000) demonstrated that rapport could accurately be estimated from 30 seconds of observation. In retrospect, 30 seconds of observation may have been a conservative observation length as 10-30 seconds may be enough for observers to accurately form impressions. A priori, however, 30 and 60
seconds were chosen as an initial attempt at discovering any potential differences between length and location for relational phenomena within the thin slice paradigm.

Finally, another explanation for the lack of significant findings for slice length could be that the measurement of accuracy, or inaccuracy as operationalized in the study, may not have demonstrated strong validity. In this study, inaccuracy was determined as a difference between video interactants’ ratings and observers’ ratings of the judged phenomena. In previous studies, the criterion for accuracy was an average between self-report and knowledgeable informants’ perceptions of target. It is possible that peoples’ self-perceptions and the perceptions of others are not always congruent, so averaging the two may provide a more accurate criterion for judgment. In addition, observers viewed only one interaction partner at a time. This is a hybrid method of what has been done in other studies; for instance, Grahe and Bernieri had observers view only one interaction partner at a time, but the criterion for rapport was the average of both interaction partners’ ratings. Place et al. (2012) had observers view both interaction partners within the interaction, but ratings of relationship potential were done individually for each partner. It may be possible that changes in the criterion or observation from the dyad level of the interaction will change the accuracy of judgments of rapport and friendship potential.

**Slice Location and Inaccuracy**

Overall, there was no support for the hypothesis that observers would be more accurate when their observations came from the ending, as opposed to the beginning, of the interaction. This may, again, be due to the lack of sample size in the dyads or observers, or the validity of the accuracy criteria. In addition, the length of the observations may have confounded the effects of location. However, this does not seem plausible because the
repeated measures design which included slice length as a covariate was still not significant.

Interestingly, the individual tests for the effects of slice location for each video interactant revealed a number of significant differences in accuracy, but in conflicting directions. For some video interactants, observers were more accurate when observing the end of the interaction, as predicted, yet for others, observers were more accurate when observing the beginning of the interaction, contrary to the prediction. Cappella (1997), found that rapport between females was more difficult to judge than rapport between males, because of the prevalence of female smiling. Females may be more likely to smile, particularly in initial interactions. However, smiling may also be perceived as an indicator of interpersonal warmth and friendliness. The prevalence of smiling in the present study may have made it more difficult for individuals to form impressions of female-female dyads, and as a result, the varying accuracy of observers’ impressions of rapport and friendship potential may have been influenced by smiling.

Additionally, it could be that the addition of another slice location in the middle of the interaction may result in significant differences in accuracy. Place et al. (2012) had observers rate relationship potential from thin slices taken from the exact middle of the interaction. Relationship potential was accurately estimated from this location. It is possible that the beginning and the end of the interaction do not significantly differ from each other in terms of accuracy (or inaccuracy) but the middle of the interaction might. If interactants are still warming up in the beginning of the interaction and starting to wind down at the end of the interaction, then the middle of the interaction might provide the truest estimate of the overall interaction.
Finally, another possible explanation for the lack of significance in slice location could be that there are idiosyncratic (or dyad-syncratic) differences in location by time. The same time frame (e.g., 30 seconds in the beginning of the interaction) could have encompassed different stages of development in the interaction, depending on the dyad. For instance, interactants with rapport may move quickly through relationship development and may have friendship potential by the first 30 seconds of the interaction. In contrast, interactants without rapport may take the entire interaction to develop friendship potential. The lack of consistency in interactions could be removed by increasing the number of observers per video interactant so that each dyad can be analyzed independently with sufficient power.

**Differences in Phenomena**

Lastly, it was predicted that impressions of extraversion would be more accurate than rapport and friendship potential under two conditions. First, extraversion would be more accurate than rapport and friendship potential when observers’ observed 30 seconds of observation and second, extraversion would be more accurate than rapport and friendship potential when observers’ observed the beginning of interactions. The results were generally the same for both predictions. Two overall tests were conducted for each prediction, and both tests were significant regarding differences in phenomena. However, one of the tests was significant in support of the hypothesis, and the other was significant in the opposite direction. These mixed results indicate that observers were significantly more accurate in their impressions of extraversion than rapport and friendship potential for some interactants, yet they were significantly more accurate in their impressions of rapport and friendship potential than extraversion for other interactants.
Based on the mixed results, there may be a number of factors which are unaccounted for but may explain why observers were more accurate in impressions of extraversion than rapport and friendship potential for some individuals, yet more accurate impressions of rapport and friendship potential than extraversion in other individuals. For instance, it may be that personality traits such as extraversion or agreeableness are a mediating factor for phenomena accuracy. Extraverted individuals are likely more talkative and sociable in interactions. Because of this, they may seem to exhibit qualities such as “friendliness” and an “ease of conversation” that may be construed as rapport or friendship potential to naïve observers who are watching their interactions for the first time. In contrast, introverts who seem less outgoing may be associated with less rapport or friendship potential, even if they may experience it internally. Although video interactants were on average slightly extraverted, there was a mix of self-reported extraverts and introverts within the video interactants. In addition, agreeable individuals may be more inclined to think about others. They may try to be kind and considerate to everyone and generally avoid starting conflicts. Because of this, they may be more polite in their everyday interactions. Individuals who are high in agreeableness may be more inclined to mask their true feelings regarding interaction quality with politeness and positive affect. It may be more difficult for observers to accurately assess the interactional quality of agreeable individuals and their resulting impressions of interaction quality may be skewed towards being more positive than what was actually experienced.

In addition to extraversion and agreeableness, nonverbal expressiveness may be another factor which may account for differences in observers’ accuracy in phenomena. Individuals who are high in nonverbal expressiveness may be associated with higher
perceptions of rapport and friendship potential through their active use of facial expressions and gestures to convey their emotions. According to Grahe and Bernieri (1999), rapport is primarily expressed through the nonverbal channel of communication. In the present study, the verbal channel of communication was eliminated through the use of silent video observations. Thus, impressions were formed primarily using the nonverbal channel. According to Friedman, Prince, Riggio, and DiMatteo (1980), “the essence of eloquent, passionate, spirited communication seems to involve the use of facial expressions, voice, gestures, and body movements to transmit emotions” (p. 333). It may be easier for observers to accurately form impressions of levels of rapport and friendship potential in highly expressive individuals, as opposed to less expressive individuals, which could potentially explain the seemingly confusing differences in accuracy of phenomena.

Another reason for the individual differences could be due to error. Observers were significantly more accurate for impressions of rapport and friendship potential than extraversion, contrary to the hypotheses, for one half of the video interactants, but observers were significantly more accurate for impressions of extraversion than rapport and friendship potential in the other half. There may be some systematic factor that explains the differences. For instance, the video interactants who sat on the left side of the interactions were the ones for whom observers were significantly more accurate in impressions of rapport. During the stimulus collection phase, the interactant who arrived first to the lab was often asked to sit on the left. Perhaps these individuals were more inclined to take initiative within the interaction and served as the “rapport-builders”. It would follow sense that observers would be more accurate in their impressions of rapport and friendship potential for these individuals.
Finally, the variation in phenomena accuracy could be due to validity of personality assessment. A common method of relating thin slice judgments to the overall criterion is to compare brief observations to the reports of “knowledgeable informants” or acquaintances who have past experience with the target participant. Knowledgeable informants likely have hours, or even up to a lifetime of experience with participants. Borkenau et al. (2004) and Carney et al. (2007) both used ratings from acquaintances and participants’ self-reports in determining accuracy. The ratings from these different sources were averaged to create an overall accuracy criterion. It could be that video interactants’ self-reported extraversion is not highly associated with the ways that they are perceived by others, thus a composite score with the impressions of knowledgeable informants or others who have interacted with the individual may provide a more valid criterion.

According to Mikulincer (1995), an individual’s attachment style may be associated with the mental representations of the self. The researchers demonstrated that secure and avoidant individuals had a more positive view of themselves than anxious-ambivalent individuals (Mikulincer, 1995). In addition, attachment groups have been found to differ in intimacy (Grabill & Kerns, 2000), friendship qualities (Saferstein, Neimeyer, & Hagens, 2005) and close relationships (Kirkpatrick & Hazan, 2005). Thus, attachment style may moderate the accuracy of video interactants’ self-reported extraversion, rapport, and friendship potential in the study and account for the unexplained and conflicting differences in observer accuracy.

**Theoretical and Practical Implications**

Despite the mixed results, there are some theoretical and practical implications of the findings. First, rapport and friendship potential were associated. This is noteworthy to
interpersonal relational scholars to recognize that there may be a relationship between the quality of an interaction and the potential for developing in to a relationship. Rapport is conceptualized as a sense of mutual attention, coordination, and positivity (Tickle-Degnen & Rosenthal, 1990). First impressions influence individuals’ desires to interact in the future (Zebrowitz, 1990), so rapport within an interaction may influence interactants’ desire to interact again in the future or pursue a relationship with their partner.

Although conclusions regarding causality and directionality cannot be made, an association between the two constructs was demonstrated. Because initial impressions may influence individuals’ desire to interact with one another, there may be reasonable support that rapport within an interaction may serve as an indicator of overall relational potential. These findings may be meaningful to the lives of individuals. For instance, in speed dating and the increasing relevance of internet profile platforms such as Tinder or Bumble, initial impressions regarding relational constructs are salient and valuable. In these situations, the relationship between rapport and overall friendship potential may be particularly useful in determining which individuals are worth pursuing for relationship development.

The theoretical foundation of the thin slice paradigm is that samples of behavior can be used to accurately estimate overall behavior. Previous studies have demonstrated that observers are overall accurate in their impressions of personality (Carney et al., 2007), rapport (Grahe & Bernieri, 1999), and relationship potential (Place et al., 2012). The current study expanded the thin slice paradigm by investigating if the nature of personality and relational phenomena would affect the accuracy of observers’ impressions. Although the results demonstrated that neither the slice length of observation nor slice location
within the interaction affected the accuracy of observers’ impressions of rapport and friendship potential, it may be premature to conclude that observers were able to accurately estimate rapport and friendship potential from thin slice observations.

Accuracy in the study was analyzed relative to another thin slice observation, thus the absolute accuracy of observers’ impressions of the various phenomena was not empirically tested. For instance, although there were no significant differences between 30 and 60 seconds of observation for relative accuracy of rapport and friendship potential, observers’ absolute accuracy ratings in comparison to video interactants’ self-reported responses could be accurate or inaccurate, slice length. Although accuracy for both of these constructs have been demonstrated in the past (Grahe & Bernieri, 1999; Place et al., 2012), the absolute accuracy of observers’ impressions as compared to video interactants’ self-report of rapport and friendship potential was not directly related to the scope of the current study and thus remains unknown.

The lack of significant differences in slice length or location for observers’ impressions of rapport and friendship potential could imply support for the thin slice paradigm. Previous studies have demonstrated accuracy of phenomena such as extraversion through significant correlations between observers’ ratings and the criterion (Carney et al., 2007). Although correlations were not computed in this study, there may be support for the association between observers’ impressions and the criterion of video interactants’ self-report based on the mean differences that were found in the study. The accuracy of observers’ average impressions for all three phenomena generally ranged from around 0.5 to 2 points away from video interactants’ average self-report, based on a 7-point scale. If a 1 point discrepancy between observers’ impressions and video
interactants’ self-reported responses is deemed reasonably accurate, then observers were somewhat accurate in their impressions.

The non-significant differences in observers’ accuracy of rapport and friendship potential based on slice length may also be because the nature of rapport and friendship potential is not developmental. Instead, the nature of relational phenomena may be relatively stable within initial interactions. Perhaps, in a getting-to-know-you situation, the changes in friendship development from the beginning as opposed to the end of the interaction are relatively non-existent when compared friendship development over time. It may be possible that rapport and friendship potential develop over time as relationships progress; however, they may not change much within a single interaction.

Additionally, the nature of relational phenomena may be neither stable nor developmental but rather, unstable. If rapport and friendship potential vary and fluctuate throughout the course of the interaction, then 30 or 60 seconds of interaction may contain a variety of relational cues as the conversation ebbs and flows naturally. The resulting observation may be a gestalt impression of the changes in the sample that may not be an accurate representation of the overall behavioral stream.

Overall, there is no evidence based on the current data to suggest that location or length matters for impressions of rapport or friendship potential. If this is true, then there are a number of practical implications for the findings. First of all, this may provide some evidence that first impressions are lasting impressions. Individuals may have only a limited amount of time to make an impression before their behavior is generalized to the overall behavioral stream. Rapport and friendship potential may be determined immediately within an initial interaction, or conversely, may not ever be determined within
the first 10 minutes of interaction. Instead, friendships may develop over a longer course of time, from interaction to interaction, until acquaintances eventually reach the point of friendship.

Finally, the mixed support for phenomena suggests that observers may be more accurate at forming impressions of different phenomena for different people. Some individuals may be easier to form impressions of extraversion, and other individuals may be easier to form impressions of rapport or friendship potential. Individuals should consider and recognize that some of their impressions may be more accurate than others. Individuals may make errors in judgment if they assume that all of their impressions are accurate for everyone.

**Limitations and Future Directions**

The interpretation of the findings in the present study come with a number of caveats. First, the personality trait examined in this study only included extraversion. Extraversion is just one of a number of personality traits that make up an individual, thus, the present findings for extraversion may not be generalizable to other personality traits. In addition, the criterion which was used for extraversion accuracy may not have been valid. In the present study, extraversion was measure solely based on self-reports. Previous studies used an average of both interaction partners’ ratings (Grahe & Bernieri, 1999), or an average of self-reports and individuals who have previous experience with the target (Borkenau et al., 2004; Carney et al., 2007) rather than self-reported extraversion in the present study. It is possible that the inclusion of other perceptions of the video interactants may provide an more valid alternative criterion measure.
Observers were also shown only one interaction partner at a time target in this study. Observers made judgments about the individual (i.e., extraversion), as well as the interaction (i.e., rapport and friendship potential), so it was practical for observers to view only one partner in the interaction because it avoided confusion. However, other researchers, who have focused solely on judgments regarding the interaction, showed both interaction partners to observers and demonstrated observers’ accuracy in rapport (Grahe & Bernieri, 1999) and relationship potential (Place et al., 2012). Changes in the criterion or changes in the observation to the dyad level of the interaction may change the accuracy of judgments, and thus change the findings and implications of the present study.

Another consideration was that the study sample was very limited. A convenience sample of college students were used for both the video interactants and the observers. There was limited variability in the five dyadic interactions, thus the study could have benefitted from more couples. The video interactant dyads were limited to all females so the findings of this study may not be generalizable to all male or mixed gender dyads. The number of observers was also limited, and the final data became even more restricted after dropping cases. An increased number of observers would increase confidence in the findings that the differences, or lack thereof, that were reported are indeed indicative of the overall population.

College students may also be more inclined towards politeness and have high social desirability. As mentioned earlier, interactants may conceal their true experiences and emotions with politeness and smiling. Future studies may consider using children as video interactants for thin slice observations. Rapport and friendship potential may be more linear in development, and may also be more apparent in their nonverbal expressiveness.
By capturing the interactions of children, it may be possible to observe the development of social desirability and politeness in different age groups, in addition to the development of relationships in interactions.

Finally, the way that observers' processed the messages during the rating procedure should also be considered. There are two primary modes of processing, referred to explicit and implicit processing (Bargh, 1992). These processing styles vary in levels of cognitive awareness. When engaging in explicit processing, messages are processed using conscious and deliberative thought (Bargh, 1992), whereas in implicit processing, individuals process a large amount of information quickly and without awareness (Kahneman, 2003). Individuals may rely on their normative message processing style (Aune & Reynolds, 1994), or a preference for one mode of processing over the other. During the video observations, observers who tend to engage in explicit processing may have been more likely to focus on specific cues before assigning meaning. Conversely, observers who tend to engage in implicit processing may not have attended to specific cues and instead, used shortcuts to focus on gestalt impressions. Thus, by having participants watch ten 30-second video clips or ten 60-second video clips, one form of message processing may have been privileged over the other.

Future studies may consider manipulating relational development through the conversational topic. Generating interpersonal closeness within interactions (Aron et al, 1997) through self-disclosure could create relational development within a given interaction. If the conversational topics are provided in a way that promote relational development, then slice length and location may indeed affect accuracy of thin slice observations as predicted. In addition, perceived future interaction has demonstrated
significant effects on relationship formation, particularly in the computer-mediated context (Gibbs, Ellison, & Heino, 2006). Perceived future interaction was not included for video interactants in the study. The development of friendship potential and the overall tone of the initial interaction may have been different if participants perceived that they would interact with their partners in the future. Future studies may investigate and include perceived future interaction to increase the validity of assessments.

Friendship potential and rapport may develop differently within each dyad, thus, future studies should look at the interactants’ perspectives in thin slice evaluations. Although the theoretical application of thin slices in everyday life has often been highly interpersonal – e.g., can I quickly and accurately tell if that person is lying to me or is a nice person – by focusing on observers’ perceptions of the interaction, the thin slice research paradigm has often neglected the interactants’ own perspectives. Thus far, there has been little to no research regarding the timing and accuracy of interactants’ own impressions throughout the interaction. Perhaps this may be because the benefit of the current thin slice paradigm is having multiple naïve observers view each video clip, which helps to reduce the error in any one individual’s perceptions. However, in order to generalize the findings of thin slice impressions to the individuals within the interaction themselves, further investigation into interactant perspective is warranted.
Conclusion

The goal of the present study was to extend the thin slice paradigm to impressions of relational phenomena. Relational phenomena included rapport and friendship potential, which were positively associated with each other. Contrary to the prediction, the length of the observation and the location of the observation within the interaction did not significantly affect the accuracy of impressions of rapport and friendship potential. Extraversion impressions were expected to be more accurate than rapport and friendship potential when observations were brief, or taken from the beginning of the interaction. The mixed results indicated that individuals are sometimes more accurate for extraversion, yet are other times more accurate for rapport and friendship potential. The findings of this study, although overall not supportive of the hypotheses, contribute noteworthy insights as an initial attempt at determining whether individuals can accurately estimate friendship potential “from first sight”.

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Figure 1

*Example video interaction*

Partner A  Partner B
Table 1

*Means of the major variables for video interactants*

<table>
<thead>
<tr>
<th>Interactant</th>
<th>Dyad</th>
<th>Partner</th>
<th>Extraversion</th>
<th>Rapport</th>
<th>Friendship Potential</th>
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<td>4.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>5.13</td>
<td>5.94</td>
<td>6.00</td>
<td></td>
</tr>
</tbody>
</table>
Table 2

Descriptives and reliability coefficients of the major variables for observers

<table>
<thead>
<tr>
<th>Interactant</th>
<th>Extraversion</th>
<th>Rapport</th>
<th>Friendship Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>α</td>
</tr>
<tr>
<td>1 A</td>
<td>4.02</td>
<td>1.23</td>
<td>.91</td>
</tr>
<tr>
<td>1 B</td>
<td>3.30</td>
<td>0.95</td>
<td>.91</td>
</tr>
<tr>
<td>2 A</td>
<td>4.19</td>
<td>1.07</td>
<td>.89</td>
</tr>
<tr>
<td>2 B</td>
<td>4.09</td>
<td>1.04</td>
<td>.87</td>
</tr>
<tr>
<td>3 A</td>
<td>4.31</td>
<td>0.94</td>
<td>.85</td>
</tr>
<tr>
<td>3 B</td>
<td>4.81</td>
<td>1.13</td>
<td>.90</td>
</tr>
<tr>
<td>4 A</td>
<td>3.20</td>
<td>0.98</td>
<td>.88</td>
</tr>
<tr>
<td>4 B</td>
<td>3.41</td>
<td>0.84</td>
<td>.86</td>
</tr>
<tr>
<td>5 A</td>
<td>4.53</td>
<td>0.99</td>
<td>.86</td>
</tr>
<tr>
<td>5 B</td>
<td>4.81</td>
<td>0.94</td>
<td>.85</td>
</tr>
</tbody>
</table>

Note:

α = Cronbach’s alpha; The variation in sample size is due to cases being excluded if participants spent >60 seconds on the video page in the 30 second condition or if participants reported recognizing the video interactant.
Table 3

*Relationship between observers’ ratings of rapport and friendship potential ($r_{R*FP}$) per video interactant*

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>n</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>56</td>
<td>.70**</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>59</td>
<td>.65**</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>56</td>
<td>.51**</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>56</td>
<td>.67**</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>51</td>
<td>.46**</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>54</td>
<td>.54**</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>58</td>
<td>.49**</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>57</td>
<td>.74**</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>54</td>
<td>.61**</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>54</td>
<td>.55**</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction

**significant at $p>0.01$ (2-tailed)
Table 4

Two-way repeated measures tests with within-subjects factor of dyad and between-subjects factor of slice length (30 vs 60 seconds) on rapport per partner

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks’ Lambda</th>
<th>Dyad</th>
<th>Slice Length</th>
<th>Dyad*Slice Length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>.33</td>
<td>23.04</td>
<td>.34</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.01</td>
<td>.01**</td>
<td>3.01</td>
</tr>
<tr>
<td>B</td>
<td>.22</td>
<td>7.28</td>
<td>1.62</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.37</td>
<td>.04</td>
<td>.23</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Slice Length = the interaction between the within-subjects and between-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

**Green type** indicates significance in the predicted direction; **Red type** indicates significance in the opposite direction
### Table 5

**Independent samples t-tests for slice length on rapport per video interactant**

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>Slice Length</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>30 sec. M</td>
<td>30 sec. M</td>
<td>95% CI LL</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>1.02</td>
<td>0.52</td>
<td>0.18</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>1.36</td>
<td>0.92</td>
<td>0.37</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>1.82</td>
<td>1.82</td>
<td>-0.46</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1.02</td>
<td>1.19</td>
<td>-0.59</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>0.58</td>
<td>0.63</td>
<td>-0.31</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1.82</td>
<td>1.72</td>
<td>-0.26</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1.88</td>
<td>1.43</td>
<td>0.11</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>0.67</td>
<td>0.71</td>
<td>-0.30</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>2.03</td>
<td>2.24</td>
<td>-0.65</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0.97</td>
<td>0.87</td>
<td>-0.23</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

**Green type** indicates significance in the predicted direction; **Red type** indicates significance in the opposite direction.
### Table 6

*Two-way repeated measures tests with within-subjects factor of dyad and between-subjects factor of slice length (30 vs 60 seconds) on friendship potential per partner*

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks' Lambda</th>
<th>Dyad</th>
<th></th>
<th>Slice Length</th>
<th></th>
<th>Dyad*Slice Length</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.93</td>
<td>0.50</td>
<td>2.35, 128.34</td>
<td>.68</td>
<td>.01</td>
<td>3.29</td>
<td>1, 45</td>
</tr>
<tr>
<td>B</td>
<td>.49</td>
<td>25.66</td>
<td>1, 37</td>
<td>&lt;.001***</td>
<td>.41</td>
<td>3.92</td>
<td>1, 37</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Slice Length = the interaction between the within-subjects and between-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction.
Table 7

*Independent samples t-tests for slice length on friendship potential per video interactant*

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>Slice Length</th>
<th>30 sec.</th>
<th>60 sec.</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td></td>
<td>1.27</td>
<td>0.98</td>
<td>1.12</td>
<td>0.84</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td></td>
<td>1.62</td>
<td>1.11</td>
<td>0.90</td>
<td>0.70</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td></td>
<td>1.31</td>
<td>1.13</td>
<td>0.89</td>
<td>0.80</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td></td>
<td>0.92</td>
<td>0.95</td>
<td>1.21</td>
<td>0.80</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td></td>
<td>1.16</td>
<td>0.80</td>
<td>0.97</td>
<td>0.63</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td></td>
<td>2.58</td>
<td>1.19</td>
<td>2.19</td>
<td>1.18</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td></td>
<td>2.45</td>
<td>1.18</td>
<td>1.41</td>
<td>0.90</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td></td>
<td>1.05</td>
<td>0.92</td>
<td>1.18</td>
<td>1.06</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td></td>
<td>1.60</td>
<td>1.12</td>
<td>1.40</td>
<td>1.05</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td></td>
<td>1.50</td>
<td>1.21</td>
<td>1.38</td>
<td>1.05</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

**Green type** indicates significance in the predicted direction; **Red type** indicates significance in the opposite direction.
Table 8

Two-way repeated measures tests with within-subjects factor of dyad and between-subjects factor of slice location (beginning vs end of the interaction) on rapport per partner

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks' Lambda</th>
<th>Dyad</th>
<th>Slice Location</th>
<th>Dyad*Slice Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>df</td>
<td>p</td>
</tr>
<tr>
<td>A</td>
<td>.33</td>
<td>24.71</td>
<td>3.17, 142.46</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>B</td>
<td>.21</td>
<td>7.59</td>
<td>1,37</td>
<td>.01**</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Slice Location = the interaction between the within-subjects and between-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 9

*Independent samples t-tests for slice location within the interaction on rapport per video interactant*

<table>
<thead>
<tr>
<th>Interactant</th>
<th>Slice Location</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning</td>
<td>End</td>
<td></td>
</tr>
<tr>
<td>Dyad</td>
<td>M   SD</td>
<td>M   SD</td>
<td>LL</td>
</tr>
<tr>
<td>1</td>
<td>A   0.93 0.71</td>
<td>0.65 0.51</td>
<td>-0.05</td>
</tr>
<tr>
<td>2</td>
<td>A   1.40 0.77</td>
<td>0.89 0.72</td>
<td>0.13</td>
</tr>
<tr>
<td>3</td>
<td>A   1.79 0.76</td>
<td>1.85 0.94</td>
<td>-0.51</td>
</tr>
<tr>
<td>4</td>
<td>A   0.82 0.61</td>
<td>1.37 0.81</td>
<td>-0.94</td>
</tr>
<tr>
<td>5</td>
<td>A   0.62 0.46</td>
<td>0.59 0.42</td>
<td>-0.21</td>
</tr>
<tr>
<td>1</td>
<td>B   1.70 0.78</td>
<td>1.85 0.49</td>
<td>-0.50</td>
</tr>
<tr>
<td>2</td>
<td>B   1.61 0.61</td>
<td>1.69 0.77</td>
<td>-0.45</td>
</tr>
<tr>
<td>3</td>
<td>B   0.49 0.35</td>
<td>0.89 0.55</td>
<td>-0.65</td>
</tr>
<tr>
<td>4</td>
<td>B   2.09 0.79</td>
<td>2.17 0.81</td>
<td>-0.52</td>
</tr>
<tr>
<td>5</td>
<td>B   1.00 0.61</td>
<td>0.85 0.58</td>
<td>-0.18</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 10

Two-way repeated measures tests with within-subjects factor of dyad and between-subjects factor of slice length (beginning vs end of the interaction) on friendship potential per partner

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks’ Lambda</th>
<th>Dyad</th>
<th>Slice Location</th>
<th>Dyad*Slice Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.93</td>
<td>0.55</td>
<td>2.71, 119.06</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.06</td>
</tr>
<tr>
<td>B</td>
<td>.48</td>
<td>26.86</td>
<td>1, 37</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.06</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Slice Location = the interaction between the within-subjects and between-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 11

*Independent samples t-tests for slice location within the interaction on friendship potential per video interactant*

<table>
<thead>
<tr>
<th>Interactant</th>
<th>Slice Location</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyad</td>
<td>Beginning</td>
<td>End</td>
<td></td>
</tr>
<tr>
<td>1 A</td>
<td>1.01 0.82</td>
<td>1.37 0.96</td>
<td>-0.84 0.13</td>
</tr>
<tr>
<td>2 A</td>
<td>1.29 1.03</td>
<td>1.23 0.98</td>
<td>-0.46 0.59</td>
</tr>
<tr>
<td>3 A</td>
<td>0.97 0.89</td>
<td>1.25 1.09</td>
<td>-0.81 0.25</td>
</tr>
<tr>
<td>4 A</td>
<td>0.93 0.86</td>
<td>1.18 0.90</td>
<td>-0.73 0.22</td>
</tr>
<tr>
<td>5 A</td>
<td>1.27 0.78</td>
<td>0.88 0.61</td>
<td>-0.01 0.78</td>
</tr>
<tr>
<td>1 B</td>
<td>2.25 1.32</td>
<td>2.51 1.04</td>
<td>-0.91 0.38</td>
</tr>
<tr>
<td>2 B</td>
<td>1.85 1.25</td>
<td>2.01 1.10</td>
<td>-0.78 0.45</td>
</tr>
<tr>
<td>3 B</td>
<td>1.47 1.18</td>
<td>0.74 0.54</td>
<td>0.24 1.22</td>
</tr>
<tr>
<td>4 B</td>
<td>1.32 1.01</td>
<td>1.68 1.13</td>
<td>-0.95 0.23</td>
</tr>
<tr>
<td>5 B</td>
<td>1.73 1.19</td>
<td>1.16 1.01</td>
<td>-0.03 1.17</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 12

Two-way repeated measures tests with within-subjects factors of dyad and phenomena (extraversion vs rapport) for 30-second observations per partner

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks' Lambda</th>
<th>Dyad</th>
<th>Phenomena</th>
<th>Dyad*Phenomena</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>df</td>
<td>p</td>
</tr>
<tr>
<td>A</td>
<td>.56</td>
<td>21.15</td>
<td>2.34, 53.75</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>B</td>
<td>.65</td>
<td>2.70</td>
<td>1, 20</td>
<td>.12</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Phenomena = the interaction between the within-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 13

**Paired-samples t-tests for 30 seconds of observation of phenomena per video interactant**

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>Extraversion</th>
<th></th>
<th>Rapport</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>LL</td>
<td>UL</td>
<td>t</td>
<td>df</td>
<td>p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>1.87</td>
<td>1.03</td>
<td>1.02</td>
<td>0.70</td>
<td>0.55</td>
<td>1.18</td>
<td>5.62</td>
<td>28</td>
<td>.00***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>0.80</td>
<td>0.60</td>
<td>1.36</td>
<td>0.88</td>
<td>-0.98</td>
<td>-0.13</td>
<td>-2.67</td>
<td>29</td>
<td>.01**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>2.81</td>
<td>1.03</td>
<td>1.82</td>
<td>0.86</td>
<td>0.68</td>
<td>1.32</td>
<td>6.38</td>
<td>27</td>
<td>.00***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1.08</td>
<td>0.78</td>
<td>1.02</td>
<td>0.81</td>
<td>-0.47</td>
<td>0.59</td>
<td>0.24</td>
<td>28</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>0.85</td>
<td>0.56</td>
<td>0.58</td>
<td>0.50</td>
<td>-0.00</td>
<td>0.55</td>
<td>1.05</td>
<td>25</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1.36</td>
<td>0.77</td>
<td>1.36</td>
<td>0.74</td>
<td>-0.83</td>
<td>-0.10</td>
<td>-2.60</td>
<td>25</td>
<td>.02*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>0.83</td>
<td>0.62</td>
<td>0.88</td>
<td>0.68</td>
<td>-1.38</td>
<td>-0.72</td>
<td>-6.49</td>
<td>28</td>
<td>.00***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>1.00</td>
<td>0.71</td>
<td>0.67</td>
<td>0.50</td>
<td>-0.05</td>
<td>0.70</td>
<td>1.78</td>
<td>28</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>1.91</td>
<td>0.87</td>
<td>2.03</td>
<td>0.81</td>
<td>-0.39</td>
<td>0.14</td>
<td>-0.99</td>
<td>28</td>
<td>.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0.79</td>
<td>0.62</td>
<td>0.97</td>
<td>0.61</td>
<td>-0.47</td>
<td>0.10</td>
<td>-1.30</td>
<td>27</td>
<td>.20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 14

Two-way repeated measures tests with within-subjects factors of dyad and phenomena (extraversion vs friendship potential) for 30-second observations per partner

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks’ Lambda</th>
<th>Dyad</th>
<th>Phenomena</th>
<th>Dyad*Phenomena</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>df</td>
<td>p</td>
</tr>
<tr>
<td>A</td>
<td>.81</td>
<td>11.12</td>
<td>2.84, 65.48</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>B</td>
<td>.51</td>
<td>14.94</td>
<td>1, 20</td>
<td>&lt;.001***</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Phenomena = the interaction between the within-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
Table 15

Paired-samples t-tests for 30 seconds of observation of phenomena per video interactant

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>Extraversion</th>
<th>FP</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>LL  UL</td>
<td>t  df  p</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>1.88 1.03</td>
<td>1.28 0.98</td>
<td>0.04 1.17</td>
<td>2.20 28 .04*</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>0.80 0.60</td>
<td>1.62 1.12</td>
<td>-1.33 -0.32</td>
<td>-3.34 29 .00***</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>2.81 1.03</td>
<td>1.31 1.13</td>
<td>1.01 2.01</td>
<td>6.21 27 .00***</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1.07 0.78</td>
<td>0.92 0.95</td>
<td>-0.30 0.61</td>
<td>0.70 28 .48</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>0.85 0.56</td>
<td>1.17 0.80</td>
<td>-0.71 0.08</td>
<td>-1.65 25 .11</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1.36 0.77</td>
<td>2.58 1.19</td>
<td>-1.73 -0.70</td>
<td>-4.90 25 .00***</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>0.83 0.62</td>
<td>2.45 1.18</td>
<td>-2.14 -1.10</td>
<td>-6.34 28 .00***</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>1.00 0.71</td>
<td>1.05 0.92</td>
<td>-0.41 0.31</td>
<td>-0.29 28 .77</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>1.90 0.87</td>
<td>1.60 1.12</td>
<td>-0.12 0.74</td>
<td>1.46 28 .16</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0.79 0.62</td>
<td>1.50 1.21</td>
<td>-1.14 -0.27</td>
<td>-3.34 27 .00***</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; FP = friendship potential; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

**Green type** indicates significance in the predicted direction; **Red type** indicates significance in the opposite direction
Table 16

Two-way repeated measures tests with within-subjects factors of dyad and phenomena (extraversion vs rapport) for observations of the beginning of interactions per partner

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks' Lambda</th>
<th>Dyad</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
<th>Phenomena</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
<th>Interaction</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.44</td>
<td></td>
<td>17.33</td>
<td>2.58, 56.81</td>
<td>&lt;.001***</td>
<td>.44</td>
<td></td>
<td>28.41</td>
<td>1, 22</td>
<td>&lt;.001***</td>
<td>.56</td>
<td>0.02</td>
<td>1, 22</td>
<td>.89</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>.56</td>
<td></td>
<td>34.24</td>
<td>2.55, 48.48</td>
<td>&lt;.001***</td>
<td>.63</td>
<td></td>
<td>14.68</td>
<td>1, 19</td>
<td>.001**</td>
<td>.44</td>
<td>2.71</td>
<td>2.86, 54.40</td>
<td>.06</td>
<td>.13</td>
<td></td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Phenomena = the interaction between the within-subjects variables.
*significant at p < .05; **significant at p < .01; ***significant at p < .001
Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction.
Table 17

*Paired-samples* t*-tests for the beginning of interactions of phenomena per video interactant*

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>Extraversion</th>
<th>Rapport</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>LL</td>
<td>UL</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>1.84 1.05</td>
<td>0.93 0.71</td>
<td>0.61</td>
<td>1.22</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>0.80 0.67</td>
<td>1.40 0.77</td>
<td>-1.01</td>
<td>-0.18</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>2.63 0.90</td>
<td>1.80 0.76</td>
<td>0.58</td>
<td>1.09</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1.56 0.84</td>
<td>0.82 0.61</td>
<td>0.25</td>
<td>1.23</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>0.80 0.55</td>
<td>0.63 0.46</td>
<td>-0.10</td>
<td>0.45</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1.34 0.63</td>
<td>1.85 0.49</td>
<td>-0.82</td>
<td>-0.19</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>0.92 0.61</td>
<td>1.69 0.77</td>
<td>-1.15</td>
<td>-0.40</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>0.54 0.35</td>
<td>0.89 0.55</td>
<td>-0.59</td>
<td>-0.12</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>2.13 0.75</td>
<td>2.17 0.81</td>
<td>-0.28</td>
<td>0.20</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0.76 0.56</td>
<td>0.85 0.58</td>
<td>-0.36</td>
<td>-0.18</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

*Green type* indicates significance in the predicted direction; *Red type* indicates significance in the opposite direction.
Table 18

*Two-way repeated measures tests with within-subjects factors of dyad and phenomena (extraversion vs friendship potential) for observations of the beginning of interactions per partner*

<table>
<thead>
<tr>
<th>Partner</th>
<th>Wilks’ Lambda</th>
<th>Dyad</th>
<th>Phenomena</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>.40</td>
<td>2.06</td>
<td>1, 22</td>
<td>.17 .09</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>.58</td>
<td>17.67</td>
<td>1, 19</td>
<td>&lt;.001*** .48</td>
</tr>
</tbody>
</table>

Note: Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; Dyad*Phenomena = the interaction between the within-subjects variables

*significant at p < .05; **significant at p < .01; ***significant at p < .001

*Green type* indicates significance in the predicted direction; *Red type* indicates significance in the opposite direction
### Table 19

**Paired-samples t-tests for the beginning of interactions of phenomena per video interactant**

<table>
<thead>
<tr>
<th>Dyad</th>
<th>Partner</th>
<th>Extraversion</th>
<th>FP</th>
<th>95% CI</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>LL</td>
<td>UL</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>1.84 1.06</td>
<td>1.01 0.82</td>
<td>0.28</td>
<td>1.38</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>0.81 0.67</td>
<td>1.30 1.03</td>
<td>-0.96</td>
<td>-0.03</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>2.63 0.90</td>
<td>0.97 0.89</td>
<td>1.30</td>
<td>2.03</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1.56 0.84</td>
<td>0.93 0.86</td>
<td>0.13</td>
<td>1.13</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>0.80 0.55</td>
<td>1.27 0.78</td>
<td>-0.79</td>
<td>-0.15</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1.34 0.63</td>
<td>1.85 0.49</td>
<td>-0.82</td>
<td>-0.19</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>0.92 0.61</td>
<td>1.69 0.77</td>
<td>-1.15</td>
<td>-0.40</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>0.54 0.35</td>
<td>0.74 0.54</td>
<td>-0.42</td>
<td>0.01</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>2.13 0.75</td>
<td>1.68 1.13</td>
<td>0.06</td>
<td>0.85</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0.76 0.56</td>
<td>1.16 1.01</td>
<td>-0.76</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

**Note:** Partner A = video interactant who was on the left side of the interaction; Partner B = video interactant who was on the right side of the interaction; FP = friendship potential; M = mean inaccuracy difference; CI = confidence interval; LL = lower limit; UL = upper limit

*significant at p < .05; **significant at p < .01; ***significant at p < .001

Green type indicates significance in the predicted direction; Red type indicates significance in the opposite direction
My name is Emi Hashi and I am a graduate student at the University of Hawai‘i at Mānoa in the Department of Communicology. As part of my degree program, I am conducting a research project. The purpose of this project is to evaluate perceptions and collect examples of individuals in initial interactions. I am asking you to participate in this study because you are female, at least 18 years old, and you are enrolled in a Communicology course.

Activities and Time Commitment: If you participate in this project, you will be scheduled for an appointment in which you will interact with another individual in a getting-to-know-you situation. Your interaction will be video-recorded for future research. To schedule an appointment, you will first provide your availability to the researcher. The researcher will then check your schedule with another individual and if your availability matches up, you will be scheduled for an appointment time. If your availability does not match up, your participation in this study will be discontinued.

After you are scheduled for an appointment, the researcher will send you a link to an online questionnaire about yourself and your personality. The questionnaire should take around 15-20 minutes to complete. At the time you receive the link to the questionnaire, you will also be given a completion date. You must complete the questionnaire before the completion date or your appointment will need to be re-scheduled.

At your scheduled appointment time, you will come to the designated location and meet another individual. You will interact with this individual (someone you are unacquainted with) for around 5-10 minutes. The interaction will be video-recorded. Following the interaction, you will be asked to respond to a number of questions based on your perceptions of the interaction and the person you spoke with. The total time you will be asked to invest in this project is 1 hour. I expect that around 20 people will take part in this project.

Benefits and Risks: There will be no direct benefit to you for taking part in this project. The findings from this project may help to create a better understanding of how people develop perceptions of others based on initial interactions.

Please keep in mind that because you will be having a getting acquainted conversation, you may share personal information during your interaction. However, you are free to choose what you share. If you feel uncomfortable during the interaction, you can stop or withdraw from the project altogether. At the end of the interaction, I will ask you again if you are still willing to participate, and at that point, you can also choose to discontinue your participation and your video recording will be deleted. I believe there is little risk to you in participating in this research project.
Confidentiality and Privacy: I will keep all information in a safe place. Only my University of Hawai‘i advisor and I will have access to your survey results. The University of Hawai‘i Human Studies Program and other agencies that have legal permission also have the right to review research records for this study. The videos of your interaction will not be publicly accessible, but again, please be aware that any information you share may be seen by future research participants. I will not use your name when I report results of my research project.

Voluntary Participation: Your participation in this project is completely voluntary. You can freely choose to take part in any part of study. If you agree to participate, you can stop at any time. There will be no penalty or loss to you if you decide to opt out. You will receive Sona credit for your time and effort in participating in this research project.

Questions: If you have any questions about this study, please call me at (808) 956-8202 or e-mail me at emihashi@hawaii.edu. You may also contact my faculty supervisor, Dr. Amy Hubbard, at aebesu@hawaii.edu. If you have questions about your rights as a research participant, you may contact the UH Human Studies Program at (808) 956-5007 or uhirb@hawaii.edu.

To Participate in the Study: Please click either ‘yes’ or ‘no’ to the following. Then, click the ‘Next’ button at the bottom of this screen. You will be directed to the sign-up sheet to complete your availability. Completing your availability will be considered your consent to participate in this study.

____ Yes  _____ No  I understand that my interaction will be video-recorded.
____ Yes  _____ No  I understand that any information I share during this interaction will be seen by others.

Please print a copy of this page for your reference
Re-Consent Form

My name is Emi Hashi and I am a graduate student at the University of Hawai‘i at Mānoa in the Department of Communicology. As part of my degree program, I am conducting a research project. The purpose of this project is to evaluate perceptions and collect examples of individuals in initial interactions. I am asking you to participate in this study because you are female, at least 18 years old, and you are enrolled in a Communicology course.

Activities and Time Commitment: If you participate in this project, you will soon meet another individual (someone who you are unacquainted with) in a getting-to-know-you situation. You will interact with this individual for around 5-10 minutes. Your interaction will be video-recorded for future research. Following the interaction, you will be asked to respond to a number of questions based on your perceptions of the interaction and the person you spoke with. The total time you will be asked to invest in this project is 1 hour. We expect that around 20 people will take part in this project.

Benefits and Risks: There will be no direct benefit to you for taking part in this project. The findings from this project may help to create a better understanding of how people develop perceptions of others based on initial interactions.

Please keep in mind that because you will be having a getting acquainted conversation, you may share personal information during your interaction. However, you are free to choose what you share. If you feel uncomfortable during the interaction, you can stop or withdraw from the project altogether. At the end of the interaction, I will ask you again if you are still willing to participate, and at that point, you can also choose to discontinue your participation and your video recording will be deleted. I believe there is little risk to you in participating in this research project.

Confidentiality and Privacy: I will keep all information in a safe place. Only my University of Hawai‘i at Mānoa advisor and I will have access to your survey results. The University of Hawai‘i at Mānoa Human Studies Program and other agencies that have legal permission also have the right to review research records for this study. The videos of your interaction will not be publicly accessible, but again, please be aware that any information you share may be seen by future research participants. I will not use your name when I report results of my research project.

Voluntary Participation: Your participation in this project is completely voluntary. You can freely choose to take part in any part of study. If you agree to participate, you can stop at any time. There will be no penalty or loss to you if you decide to opt out. You will receive Sona credit for your time and effort in participating in this research project.

Questions: If you have any questions about this study, please call me at (808) 956-8202 or e-mail me at emihashi@hawaii.edu. You may also contact my faculty supervisor, Dr. Amy
Hubbard, at aebesu@hawaii.edu. If you have questions about your rights as a research participant, you may contact the UH Human Studies Program at (808) 956-5007 or uhirb@hawaii.edu.

To Participate in the Study: Please sign and date this signature page. You may keep the previous page for your records. If you consent to be in this project, please sign the signature section below.

Signature(s) for Consent:

I give permission to join the “Initial Interaction Project”.

Please initial next to either “Yes” or “No” to the following:

_____ Yes  _____ No  I understand that my interaction will be video-recorded.
_____ Yes  _____ No  I understand that any information I share during this interaction will be seen by others.

Name of Participant (Print): __________________________________________________

Participant’s Signature: _____________________________________________

Date: ________________

Signature of the Person Obtaining Consent: ____________________________
Appendix C

18-item Rapport Questionnaire (Bernieri, Davis, Rosenthal, & Knee, 1994)

(7-point scale; endpoints “Not at all” to “Extremely”)

The interaction I just experienced was:

1. Well-coordinated
2. Boring
3. Cooperative
4. Harmonious
5. Satisfying
6. Comfortably paced
7. Cold
8. Awkward
9. Engrossing
10. Focused
11. Involving
12. Intense
13. Friendly
14. Active
15. Positive
16. Dull
17. Worthwhile
18. Slow
Appendix D

Friendship Potential Scale (Maton, 1988)

(7-point scale; endpoints “Strongly Disagree” to “Strongly Agree”)
I would like to:
1. Develop a friendship with this person.
2. Have more contact with this person.
3. Interact with this person again.
Appendix E

Big-Five Inventory- Extraversion (Kentle, John, & Donahue, 1991)

(7-point scale; endpoints “Strongly Disagree” to “Strongly Agree”)

I see myself as someone who:

1. Is talkative
2. Is reserved (R)*
3. Is full of energy
4. Generates a lot of enthusiasm
5. Tends to be quiet (R)
6. Has an assertive personality
7. Is sometimes shy, inhibited (R)
8. Is outgoing, sociable

Distractor items

1. Tends to find fault in others (R)
2. Does a thorough job
3. Is depressed, blue
4. Is original, comes up with new ideas
5. Is helpful and unselfish with others
6. Can be somewhat careless (R)
7. Is relaxed, handles stress well (R)
8. Is curious about many different things
9. Starts quarrels with others (R)
10. Is a reliable worker
11. Can be tense
12. Is ingenious, a deep thinker
13. Has a forgiving nature
14. Tends to be disorganized (R)
15. Worries a lot
16. Has an active imagination
17. Is generally trusting
18. Tends to be lazy (R)
19. Is emotionally stable (R)
20. Is inventive
21. Can be cold and aloof (R)
22. Perseveres until the task is finished
23. Can be moody
24. Values artistic, aesthetic experiences
25. Is considerate and kind to almost everyone
26. Does things efficiently
27. Remains calm in tense situations (R)
28. Prefers work that is routine (R)
29. Is sometimes rude to others (R)
30. Makes plans and follows through with them
31. Gets nervous easily
32. Likes to reflect, play with ideas
33. Has few artistic interests (R)
34. Likes to cooperate with others
35. Is easily distracted (R)
36. Is sophisticated in art, music and literature

*(R) Indicates reverse-coded items
Appendix F
Demographic Questions

1. What is your gender?
   (a) Male, (b) Female, (c) Other
2. What is your age?
4. Which race/ethnicity do you most identify with?
   (a) Caucasian, (b) Asian/Asian American (c) African/African American, (d) Mexican/Hispanic, (e) Hawaiian/Pacific Islander, (f) Mixed, (g) Other
5. What is your sexual orientation?
   (a) Heterosexual, (b) Homosexual, (c) Bi-sexual, (d) Other
Appendix G

Observer Recruitment Speech

My name is Emi Hashi and I am a graduate student at the University of Hawai’i at Mānoa. As part of my degree program, I am conducting a research project. The purpose of this project is to evaluate perceptions of individuals in initial interactions. I am asking you to participate in this study because you are at least 18 years old and you are enrolled in a Communicology course.

Project Description – Activities and Time Commitment: If you decide to take part in this project, you will be directed to a video interaction between two people. You will be asked to watch the interaction while focusing on the individual who is facing you. Following the interaction, you will report your impressions. You will repeat this procedure 10 times. The total time you will be asked to invest in this project is about 1 hour. We expect that around 120 people will take part in this project.

Benefits and Risks: There will be no direct benefit to you for taking part in this project. The findings from this project may help to create a better understanding of how people develop perceptions of others based on initial interactions. We believe that there is minimal risk if you decide to participate in this study.

Confidentiality and Privacy: We will not ask you for any personal information besides your name for credit granting purposes. Your responses and your identity will be disassociated. All information will be stored on a secured computer in the investigator’s office. Please do not include any personal information in your survey responses.

Voluntary Participation: You can freely choose to take part in this study. There will be no penalty or loss of benefits for your decision. If you agree to participate, you can stop at any time with no loss of benefit.

Questions: If you have any questions about this study, please call me at (808) 956-8202 or e-mail me at emihashi@hawaii.edu. You may also contact my faculty supervisor, Dr. Amy Hubbard, at aebesu@hawaii.edu. If you have questions about your rights as a research participant, you may contact the UH Human Studies Program at (808) 956-5007 or uhirb@hawaii.edu.

To Access the Survey: Please click the ‘Next’ button at the bottom of this screen. You should find a link to the questionnaire and instructions for completing it. Completing the survey will be considered your consent to participate in this study.

Please print a copy of this page for your reference.
Appendix H

Credit-Granting Survey

1. What is your first name?
2. What is your last name?
3. What is the last digit of your student ID number?
Appendix I

Big Five Inventory- Extraversion (John, Donahue, & Kentle, 1991)

(7-point scale; endpoints “Strongly Disagree” to “Strongly Agree”)

I see this person as someone who:

1. Is talkative
2. Is reserved (R)*
3. Is full of energy
4. Generates a lot of enthusiasm
5. Tends to be quiet (R)
6. Has an assertive personality
7. Is sometimes shy, inhibited (R)
8. Is outgoing, sociable

*(R) Indicates reverse-coded items
Appendix J

18-item Rapport Questionnaire (Bernieri, Davis, Rosenthal, & Knee, 1994)

(7-point scale; endpoints “Not at all” to “Extremely”)

The interaction this person experienced was:

1. Well-coordinated
2. Boring
3. Cooperative
4. Harmonious
5. Satisfying
6. Comfortably paced
7. Cold
8. Awkward
9. Engrossing
10. Focused
11. Involving
12. Intense
13. Friendly
14. Active
15. Positive
16. Dull
17. Worthwhile
18. Slow
Appendix K

Friendship Potential Scale (Adapted from Maton, 1988)

(7-point scale; endpoints “Strongly Disagree” to “Strongly Agree”)

This person would like to:
1. Develop a friendship with the other person.
2. Have more contact with the other person.
3. Interact with the other person again.
Appendix L
Demographic Information

1. What is your gender?
   (a) Male, (b) Female, (c) Other
2. What is your age?
4. Which race/ethnicity do you most identify with?
   (a) Caucasian, (b) Asian/Asian American, (c) African/African American, (d) Mexican/Hispanic, (e) Hawaiian/Pacific Islander, (f) Mixed, (g) Other
5. What is your sexual orientation?
   (a) Heterosexual, (b) Homosexual, (c) Bi-sexual, (d) Other


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