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How Fast are "Fast-Friends"? Do People Make Accurate Friendship-relevant Judgements of Strangers Within the First Minute of Interaction

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How Fast are "Fast-Friends"? Do People Make Accurate Friendship-relevant Judgements of

Strangers Within the First Minute of Interaction

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by

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Abstract

Impression formation involves the use of swift, automatic judgements in combination with slower controlled processing of incoming information to adjust those judgements. "Thin-slice" literature has also shown us that humans are capable of surprisingly accurate interpersonal judgements from small snippets of expressive behavior. Although friendship does take time to develop, assessing others along dimensions that seem to be related to friendship development during the acquaintance process often involves interpersonal judgements. This researcher sought to determine whether interpersonal judgements made in the first minute of zero-acquaintance interaction (strangers meeting) are accurate and resilient enough to resist adjustments made after a subsequent longer introductory conversation. Findings did not support the original hypotheses. Results indicated that perceptions of personality were not very accurate after the first interaction, nor especially resilient to later updating over the second interaction. However, there were some differences in accuracy and resiliency depending on the personality domain assessed. Additionally, friendship-factors were not found to be resilient across interaction periods, although they were significantly related. Although the results were not what was predicted, they suggested the paradigm of the study has the potential to be useful in the fields of "thin-slices", impression formation, and friendship/acquaintanceship processes. Suggestions for future research with this paradigm and the implications for these findings in the context of "thin-slice" and impression formation literature are discussed.

Introduction

Interpersonal relationships are essential to human beings. From the family to friendships, business partners, acquaintances, and so on. Relationships between humans are and have been the foundation for cooperation and advancement in society. The study of the forces and factors that affect human interaction and relationships is the basis of social psychology. This field has delved into the various structures and patterns of all kinds of relationships. However, what this psychological researcher is concerned with is a unique form of relationship that presumably all people will experience at some point: friendship.

Friendship

Friendship is a complicated yet foundational relationship for all human beings. What it means to be friends with someone is a difficult concept to break down into specific constituent parts. However the most common broad definition of "friends", and the one most essential to the objectives of this study, is a relationship where "one is attached to another by affection or esteem" (Merriam-Webster Online, 2020). However this is an intentionally vague definition of friendship, as friendship varies across dimensions between different people in different situations. Researchers such as Smith and Snyder (1986) have traced the roots of the struggle to define friendship to its philosophical roots in the works of Plato and Aristotle, only to conclude that there is no single meaning to "friendship", but rather a collection of models that can be useful in understanding a relationship that significantly impacts peoples lives. For example, in Aristotle's efforts to characterize friendship he makes a useful distinction; he believed there were

three distinct types of friendship, those based on pleasure, those based upon utility, and those

based upon mutual respect for each individual's virtues (Pangle, 2003). The friendship based on

mutual respect for each other's virtue was the type that Aristotle believed to be the strongest and

longest-lasting of friendships. Despite these distinctions, he believed that friendship in all of its

forms was essential for living a good life (Pangle, 2003). Aristotle differentiated between tiers of

friendship, yet acknowledged that in all forms- friendship is essential to living a more

satisfactory and meaningful life. This ancient piece of philosophical insight has held up over the

years to decades of social psychological research on friendship through a variety of different

populations and research paradigms. Friendship (specifically those of quality) helps psychosocial

and social development in children and adolescents by teaching social concepts, problem-solving

skills, and providing a secure social support network. Quality of new friendships has been found

to be associated with better adjustment to life at university and in the field of role identity (to

what degree do we identify ourselves by the social roles we are play) the identification with

being a friend was the best predictor (over income and marital status) of well-being in aging

adults (Maldrip, Malcolm, & Jensen-Campbell, 2008;Buote, et al., 2010; Siebert, et al., 1999).

Clearly friendship *is* essential to our well-being and development, however not every friendship

is equal- just as Aristotle noted. Higher quality friendships have been found to be characterized

by higher levels of positive features such as prosocial behavior and success in the world of peers,

as well as characterized by lower levels of negative features such as conflict (Berndt, 2002). but

what makes a friendship a "high-quality" one? Friendship quality, although operationalized in

different ways across different research paradigms, is often characterized by high levels of

intimacy, prosocial behavior, loyalty, and self-esteem support (Berndt, 2002). Quality friends are

good for our well-being and development across the lifespan and research in social psychology

reflects this. However, before we can enjoy the benefits of quality friendships, we must first

begin relationships with new acquaintances. As with every new relationship this process

necessitates an initial interaction, and research suggests that this can be a significant factor in

evaluating others, such as those that may become our friends.

The Acquaintance Process

The acquaintance process, although a rather self-explanatory term, describes the process

through which two previously unacquainted individuals begin forming an acquaintanceship: a

social relationship less intimate than a friendship. This is a process that precedes every

friendship, by necessity, as people must first be acquainted before they are able to develop the

more intimate bonds that constitute a friendship. There is no definitive model of the acquaintance

process, however there have been a number of studies examining the process in depth through

various lenses and paradigms. For example, the "get-acquainted" paradigm of Sprecher, Treger,

and Wondra matched two strangers together in a series of self-disclosure exercises where the two

acquaintances alternated being in the role of "discloser" and "recipient" of self-related

information (2012). Each acquaintance completed a measure of enjoyment of interaction,

closeness, liking, and perceived similarity after each segment of the study, which was intended to

induce intimacy between pairs of participants and check for this developed intimacy with these

questions (Sprecher, Treger, & Wondra, 2012). The experimenters aimed to examine the role of

self-disclosure in the acquaintance process, but did so over the course of six 4-minute

interactions between the two strangers in each run of the experiment. Several "get-acquainted"

paradigms follow a similar extended series of interactions model and look to examine factors that

play into the acquaintance process over time, as strangers get to know each other. As closer

interpersonal relationships such as friendship are often partially predicted or develop partially

due to time spent in proximity, these researchers sought to recreate the experience somewhat in a

laboratory setting. Yet, they also acknowledged the importance of perceptions of partners' in

determining if closeness was inducted through the measures assessing similarity, enjoyment,

likability, and potential for friendship. Although time spent in actual interaction was an important

experimental manipulation in generating feelings of closeness for Sprecher, Treger, and

Wondra's experiment, the literature on impression formation and "thin-slices" suggests that these

subjective judgements of experimental partners' could potentially occur much more swiftly than

over the course of six 4-minute interactions and possibly be a basis for participants' final

impressions of their partners. Key in this is the first-time interaction.

Impression Formation and Initial Impressions

A necessity in the formation of a new friendship or relationship is an initial interaction.

Without actual interaction between two people the formation of a friendship, in some ways

defined by its reciprocality in a number of social interactions, is impossibile. This initial

interaction begins the process of impression formation, which involves the integration of

incoming information about a person (how they look, sound, and act during an interaction) with

information already in long-term memory (stereotypes, schemas, previously-known information

about another individual, and so forth) in order to form an impression of the novel person (Wyer

& Srull, 2014). Wyer and Srull's (2014) model of impression formation is a dual-process model,

meaning automatic (subconscious-level) processes and controlled (controlled by the

conscious-level functions) processes interact when an individual meets a new person. Automatic

processes involved in impression formation include immediate categorization of the new person

along well-known physically-distinctive dimensions such as race, gender, age, and appearance

(Wyer & Srull, 2014). This may be why there have been effects of gender and physical

appearance noted in impression formation studies that only expose participants to mere

milliseconds of a target's face yet caused them to make an affective judgement of the

affectively-neutral face (Todorov & Porter, 2014).

This first interaction between two strangers has been recognized in the field of social

psychology as important in determining whether relationships develop (the likelihood), whether

further contact is sought, and the trajectory of those relationships (Sprecher, Treger, & Wondra,

2012). Brief, first-interactions and the impressions drawn from them have even been

demonstrated to have predictive value in the outcome of a relationship after several weeks

(Sunnafrank & Ramirez, 2004). It seems that even in a one-time, brief interaction individuals are

able to form a basic impression of another person that affects the likelihood and directionality of

future interaction and therefore the likelihood of an acquaintance relationship (and potentially

friendship) developing. Even simple exposure to a target's face for a number of milliseconds can

lead to a difference in a variety of social judgements (Todorov & Porter, 2014). However these

judgements are not infallible.

Social psychologists have studied the fallibility of human judgements for decades,

uncovering that people rely on judgemental heuristics that can be woefully inaccurate at times

(Ambady, Bernieri, & Richeson pg. 202, 2000). However, if impression formation is a

dual-process model that leads to a series of judgements about another person, and certain

judgements can occur quite quickly, is there enough relevant information about another person

communicated in a 1 minute first-time interaction such that people's judgement of others'

personality and friendship-related factors is resilient to updates after a longer 5 minute

conversation? The literature on "thin-slices" seems to support it.

Thin Slices

Short observations of expressive behavior, or "thin-slices", have been the object of study

for various social psychologists, and a fruitful one indeed. It seems that a variety of judgements

(including those on the dimensions of emotions, personality, and teaching-ability) about others

can be accurate, or have significant predictive weight, just based on observations of "thin slices"

of behavior; meaning under five-minute clips of expressive behavior taken from longer videos

such as a one-minute snippet of a teacher's full-length classroom lecture (Ambady & Rosenthal,

1992). This has been found to be true across a variety of social and clinical psychological

outcomes including interpersonal judgements; such as in differentiating between unbiased and

biased teachers, degrees of warmth and empathy in the therapist-client relationship, and

expectancies and affect from a teacher to specific students (Ambady & Rosenthal, 1992). "Thin

slices" have also been shown in some studies to have the potential to be accurate predictors of

personality.

One published measure of interpersonal sensitivity (measuring how well people can

understand non-verbal interpersonal behavior) built on "thin-slices", is the PONS or the Profile

of Non-Verbal Sensitivity that asks participants to rate a series of two-second clips of a woman

acting in interpersonal situations (for example expressing guilt, or admonishing a child) without

any audio (Ambady, Bernieri, & Richeson pg. 207, 2000). Participants succeeded in rating

(evaluating the interaction for what it was) accurately at levels above chance in the PONS. The

creators of the Interpersonal Perception Task, Costanzo & Archer (1989) built upon this finding by recreating the study using 30-second and 60-second video clips with audio, and having their participants accurately identify interpersonal relationships and objectives such as kinship, deception, and status (Ambady, Bernieri, & Richeson pg. 207, 2000). Another study, by Carney, Colvin, & Hall, examined the accuracy of personality and intelligence perceptions from brief (5, 20, 45, 60, and 300 second) exposure of participants to videos of another college student undergoing a "get-acquainted" activity (2007). They found that certain personality domains could be perceived with moderate accuracy after just 5 seconds of exposure to the video. However, they also found that accuracy in perceptions increased as the exposure length increased, with 5 minutes being the most accurate exposure length. However, they demonstrated that the 1 minute exposure length seemed to have the greater accuracy to length ratio, suggesting that 1-minute of first time interaction may be an especially informative period in strangers' perceiving one another. It seems that there is a growing body of evidence to suggest that much can be gleaned from our initial judgments of others' behavior and personality, even if it is only a minute of exposure to them. In this study, we seek to see if the findings of "thin-slice" literature, impression formation literature, and acquaintance process/friendship research, can be combined into a pilot study that seeks to examine the degree to which our quick initial judgements of others along dimensions of personality and friendship-disposing factors are accurate and enduring. Essentially, we wish to examine if people make accurate "thin-slice" judgments of others' personalities and of the factors related to future closeness or friendship in the first minute of meeting them, that then anchor our future perceptions of them.

Overview

The purpose of this experiment was threefold:

1) To see if one minute of interaction between two strangers is enough for a participant to generate an accurate assessment of a stranger's personality (via the 15 item Big-5-2 Personality Inventory of Soto & John, 2017).

2) To see if a one-minute interaction gives the same assessment of personality as a five-minute interaction (How strong are our first impression of personality)

3) To see if participants opinion of their study partner's similarity, likability and potential for friendship are consistent between the one-minute and five-minute interaction (do we only need one minute to determine if we want to be friends with someone, and is it a strong judgement)

Hypotheses:

This researcher predicts that the 1-minute "thin-slice" interaction will be enough for participants to accurately judge their partner's personality. Additionally, we predicted that participants' assessments of their study partner's personality will not change between the shorter and the longer interaction. Finally, this researcher predicts that participants will not update their ratings on dimensions of acquaintanceship/friendship between interaction periods as they will have already made resilient judgements along these dimensions.

Materials & Methods

This study was conducted at Bard College in the spring of 2021. Due to the Covid-19 pandemic this experiment was conducted wholly on Zoom, a video conferencing software. Participants were 16 undergraduate students from the college who were paired into same-gender dyads with a partner they had not met before. Participants took a personality inventory and an assessment of their typical attitudes (along dimensions related to friendship) towards other students in the first phase of the experiment. In the second phase both participants had a minute of unguided interaction after which they evaluated their partner with the same measures they had previously evaluated themselves with. After this second assessment, participants had another unguided period of interaction for five-minutes, after which they made a second evaluation of their partner with those same measures. Subsequent to this third assessment, participants were debriefed and compensated for their participation.

Participants

Sixteen undergraduate students participated in this experiment (four male and twelve female students). Participants were grouped into same-gender dyads, to avoid the gender-related confounding effects of different gender pairings noted in other paired social judgement studies (Mattarozzi et al, 2015).. Each participant was paid $7 for their participation, which took approximately 25 minutes for each participant.

       Recruitment

Participants were recruited online via posts on Bard-related pages on two social media platforms (Facebook & Instagram), as well as by posts on the principal investigator's Instagram and Facebook profiles primarily using the poster in Appendix G. Participants were invited to email the experimenter for more information or to sign-up online. The information given about the study prior to participation was that it was concerned with interactions between two strangers, specifically related to the development of friendship between people.

Materials

Qualtrics:

For this experiment a platform for participants to take the personality inventories and friendship-factor related assessments was needed. Qualtrics, a simple web-based survey tool was used.

Zoom:

Due to the coronavirus pandemic, this experiment was conducted wholly on Zoom, a free Cloud Meeting software app offered by Zoom Video Communications Incorporated that is used by the overseeing institution, Bard College, for online classes in the midst of the pandemic and therefore the software was easily accessible to all students (and therefore all participants).

Soto & John (2017) 15-Item Big-5-2XS Personality Inventory:

A measurement of personality was necessary for this study in order to see how accurately participants judged their partners' personality in the 1-minute and 5-minute conversation phases.

Participants first took the assessment about themselves, to give a measure of their own personality to compare their partners' ratings with. They also rate their partners with the same assessment twice, after each conversation phase.

Participants completed the extra small (XS) version of the Big-5-2 Personality Inventory. This is a 15-item abbreviated version of the original 60-question personality inventory of the "Big 5" personality domains created by Soto & John (2017). The Big-5-2 is a common and validated measure of personality used in social psychological experiments that assesses individuals based on these 5 personality domains: Extraversion, Agreeableness, Conscientiousness, Negative Emotionality, and Open-Mindedness (Soto & John, 2017). The creation of this abbreviated (does not examining sub-domains) personality inventory was inspired by the need to reduce rater fatigue and frustration (as well as provide more time for experimental manipulations) in experimental paradigms where participants are asked to perform multiple personality assessments, such as in this study (Soto & John, 2017). As this study is comparing a "thin-slice" assessment of an initial interaction to the assessment of the full conversation there was a need for participants to quickly inventory their partner's personality without testing or responder effects and so the Big-5-2XS was used.

Although respondents to the Big-5-2XS typically are asked to use a likert scale in their responses (see Appendix D for visualization), in this study a respondent scale with more variability was needed, to prevent testing effects such that participants could easily remember their answers on previous assessments, and use those same answers out of convenience. To solve this problem, respondents in this study's Big-5-2XS rated their agreement with each statement by using a sliding scale from 0 (Strongly Disagree) to 100 (Strongly Agree) that did not give a

visible numerical value to the respondent to prevent these testing effects. See Appendix D for

more information on the use of the Big-5-2, for the items within it, the original scoring key, and

an example of the sliding scale used

Consent Form:

Participants were asked to review and sign a copy of the consent form in Appendix A, prior to signing up for an experimental time-slot. Upon arrival to the experimental Zoom session, participants were verbally informed about the key points in the consent form, and verbal consent from each participant was ascertained prior to the beginning of the experimental session. See Appendix F for the script used in this process, and Appendix A for the consent form.

Pre-Study Assessment (PS-0), the SELF Assessment:

This is the initial assessment taken by the participant prior to the 1-minute conversation phase (see Appendix E for a visualization of the procedure). It serves multiple purposes: Firstly it includes the first personality inventory, which each participant uses to assess their *own* personality.

In addition to the personality inventory participants completed, they also answered three questions to assess their baseline attitudes (along dimensions related to closeness and friendship) towards meeting new people (see Appendix C1 for the specific items).

For this purpose this study repurposed three questions from the Relationship Closeness Induction Task's (RCIT) closeness manipulation check (Sedikides et al, pg. 4, 1999). This manipulation check was originally used to see if dyads of participants had indeed grown relationally closer to each other over the course of a Closeness Induction Task. This suits our purpose as it is a validated measure of closeness between two people, that also uses ratings of certain dimensions that have been found to be related to friendship and the acquaintanceship process between two people including similarity, likability, and the potential for friendship. The

original RCIT also included closeness as a measurable variable in its manipulation check,

however as this factor is more important in assessing relationship quality rather than the potential

for a relationship it will not be used (Berndt, 2002).

Although in the original RCIT participants are asked to answer these questions on likert

scale from 1 to 7, in this experiment paradigm participants were instructed to use a sliding scale

(see Appendix H for sample items) from 0-100 to reduce the likelihood of response or testing

effects over multiple iterations of the assessment. The actual question items can be found in the

Appendix C1 section.

As this first assessment seeks to give a baseline measure of each participant's typical

attitudes towards strangers along these dimensions, these three items are phrased to reference

participant's opinions (in terms of *average* likability, similarity, and potential for friendship) new

acquaintances at school. As all participants are Bard students, this is to give a frame of reference

for participants such that they do not need to reflect on their previous average attitudes towards

new people over the course of their life (a difficult judgment to make). Instead participants are

prompted to reflect on their attitudes at school towards new people, to reduce the cognitive load

and subsequent

Partner Assessment #1 (PS-1), the First Partner Assessment:

This assessment is taken following the first phase of interaction, the 1-minute unguided

conversation between experimental partners. It consists of another Big-5-2XS Personality

Inventory, with a key difference. That difference is that participants are now asked to assess *their

partner's personality,* not their own. They are given the same set of questions as in the Self

Assessment (the PS-0) in a randomized order (to prevent possible testing effects that may arise from identical orders questions). However, now participants are prompted to rate *their partner's personality* such that participants rate their agreement or disagreement with a set of statements about their partner's personality (see Appendix D for verbatim prompt).

This assessment also includes the same three questions aimed at assessing acquaintance/friendship process factors found in the Self Assessment, however they are also now *directed at their experimental partner.* What this means is that now participants are asked to rate how similar and likable they feel their specific experimental partner is, as well as how likely they are to become their friend (see Appendix C2 for the specific items).

Partner Assessment #2 (PS-2), the Second Partner Assessment:

This assessment follows the 5-minute conversation phase in the experiment. It is identical to the Partner Assessment #1, however participants respond to it after their second conversation period with their partner.

Script:

The same verbal script was used for each experiment session. Please see Appendix I for the full script of the experiment's procedure.

Procedure

Please see Appendix E for the visual representation of the procedure.

After participants were recruited, they were sent (all electronic communication with participants was via email) some general information about the study as well as invited to respond to a select few demographic questions (see Appendix J). These questions were actually intended to ascertain participants' genders so that same gender dyads could be insured. After responding to these questions they were invited to read and electronically sign a copy of the consent form for the study (see Appendix A). Additionally participants were invited to use an online polling service to select three available time slots in which to do the study. Once two participants of the same gender had registered for a time-slot, they were given a Zoom link and instructed to enter the meeting on the date and time of that time-slot. They were also sent the name of their study partner. Participants were instructed to let the experimenter know if they knew their partner previously, defined by having had a conversation with them before. No participants reported knowing their partner previously.

The same experimenter script and experimenter were used to run the study in each session (see Appendix I for full script). Once participants reported to the Zoom meeting, they were instructed to turn off their cameras and microphones. Firstly, the experimenter verbally went over the consent form (see Appendix F for the full script used) and ascertained verbal consent from both participants. Next, participants were invited to take the Pre-Study Assessment, the self assessment that includes a personality inventory (see Appendix D) and three questions to establish their baseline attitudes, along three dimensions related to friendship/closeness, towards new acquaintances at school (see Appendix C1 for these questions). These assessments were given via an anonymous link posted by the experimenter in the Zoom chat. Once this assessment was completed, participants messaged in the Zoom chat to signal so. The dyad was informed that

the interaction portion of the study would now begin and as such to turn on their microphones

and cameras in order to talk for one minute while the experimenter left the Zoom. Once both

cameras and microphones were on, the experimenter left the meeting for 1 minute, timing it from

the moment of exit. After the minute, the experimenter rejoined the meeting and instructed

participants to pause and turn off their microphones and cameras once again. They were then

asked to complete the Partner Assessment #1 via another link posted in the Zoom chat.

Participants signaled their completion, and once both had finished, the experimenter informed

them that now they would be having another unmonitored conversation but for 5 minutes this

time. Once both participants had turned their microphones and cameras back on, the

experimenter left for 5 minutes. Upon returning, the participants were again asked to turn off

their microphones and cameras and were given the final assessment, the Partner Assessment #2.

Once they had completed this assessment, participants were verbally debriefed and given (via the

Zoom chat's file sharing feature) a copy of the formal debriefing form (see Appendix B for the

form and script). Once participants had been instructed on how to receive their compensation (by

responding to a later email with their Venmo account names), the Zoom meeting and study

session were ended.

Results

* Notes on exclusion criteria and the treatment of empty participant responses: Some

participants failed to answer every item on the assessments. In those cases the statistics software

used in analysis, Jamovi, simply removed that blank item from each statistical test or both that

item and the matched item in the case of paired/repeated-measure tests.

If a participant's scores on the measures (the friendship/acquaintance items) assessing

their general attitudes towards new acquaintances at school were significantly lower (more

negative in attitude) by three standard deviations than the mean, they were to be excluded from

the statistical analyses. However this was not the case for any participant.

Hypotheses and Findings

Before restating the hypotheses and detailing the findings of this study, an aspect of the

statistical analyses conducted necessitates some explanation. Specifically, that our predictions are

looking for no difference between either of the post-interaction measures, or between the self and

partner measures. However, when predicting the null hypothesis there is an expectation of no

significant differences between groups, or individuals' scores, which can make statistical

analysis more nebulous. This is because many statistical tests, including the repeated-measures

ANOVAs and paired-samples t-tests used in this study, typically look for significant differences

or association between scores on the same variable across multiple levels or in this case

time-points. However, in this instance, for each of my hypotheses, I am using these tests to look

for the lack of a change in scores. This means that in the event I find no differences in the data,

or find data that supports the null hypothesis, chance could be more responsible for that outcome

than if I were seeking to reject the null hypothesis. However, due to the pilot nature of this study

and its experimental paradigm, exacting statistical analysis is of less importance than analyzing

potential patterns in the data. This means finding significant p-values, or concrete statistics that

say there is a very small likelihood my data came from chance, is of lesser importance in this

study than others. Additionally, the sample size in the experiment is fairly small (n = 16) which

also affects the statistical analyses. Specifically, it can increase the variability of responses which

can lead to biased findings, and it reduces the power and increases the margin of error (which is partially to blame for the large confidence intervals seen in the ANOVA figures). However, as the potential of the experimental paradigm and examining hints of potential patterns in responses are of key importance, this is not a death toll for the study.

The first research question of interest in this study was whether or not 1 minute of interaction is enough for one person to accurately gauge another person's personality. I hypothesized that it would indeed be enough time, and therefore predicted that there would not be a difference between the self-ratings of personality and the 1-minute partner ratings. To this end, the self scores of each Big-5 personality dimension were matched to the 1-minute partner ratings in order to see if they were strongly connected to each other, and thus to see if the 1-minute scores were accurate. What I found was that participants were overall not particularly accurate in assessing their partner's personality after 1-minute. However there were some differences depending on the personality dimension in question. Participants were weakly accurate in assessing their partner's Agreeableness and Open-Mindedness after 1-minute, however quite off in the domains of Extraversion and Conscientiousness as well as somewhat off in Negative Emotionality.

The second question of interest was whether or not the personality judgements made in the first period of interaction were resilient enough to resist updating over the course of the second interaction. I predicted that those judgements would be strong enough, and therefore that there would not be a difference between the first and second partner ratings. Therefore the analysis compared the 1-minute and 5-minute condition scores on each personality domain to see if people stuck to their original evaluations of their partner, or if they changed them after or

during the longer interaction. What I found was that the degree to which people stuck to their original assessments depended on the personality domain. For Conscientiousness and Open-Mindedness people tended to stick to near their original judgements of their partner. For Negative Emotionality and Agreeableness people tended to change their minds across interactions and did so more strongly in their ratings of Extraversion. Interestingly, although participants tended to sharply change their original judgements of their partner's Agreeableness, their ratings were somewhat strongly and positively related, suggesting that participants tended to adjust their scores of agreeableness upwards to a similar degree.

Finally, my last research question of interest asked if participants made swift enough friendship-relevant judgements of their partners that their judgements wouldn't change between the first and second interaction. I predicted that people would make resilient evaluations of their partner along these friendship concepts, and therefore would not differ across the 1-minute and 5-minute conditions. In line with my hypothesis, participants did not change their evaluations of their partner's similarity much, although slightly increasing their scores in general. Contrary to the hypothesis in question, people's ratings of their partner's likability and the potential for friendship did change substantially and in a positive direction. Meaning, they thought their partner was even more likable and had a greater potential to be their friend after the 5-minute condition.

Statistical Findings

In exploring the data for the Big-5 personality domains, a paired statistical test was needed as the *same* participants were being evaluated. There was also a need to evaluate these individuals on multiple different Big-5 personality dimensions at three different time points

(levels): the self-rating, first partner-rating, and second partner-rating. Because the number of

paired t-tests needed to conduct these analyses would have significantly increased the potential

for a Type-1 error as I was analyzing across three levels (time points), repeated-measures

Analysis of variances (ANOVAs) were conducted to evaluate the personality domains.

As for the friendship-relevant factors: because they were only partner-rated measures,

only two time points were under analysis (after each interaction period). This in combination

with the need to conduct only one t-test per variable allowed me to use the paired t-test in

analyzing these variables as the chance of a Type-1 error occurring was not a significant concern.
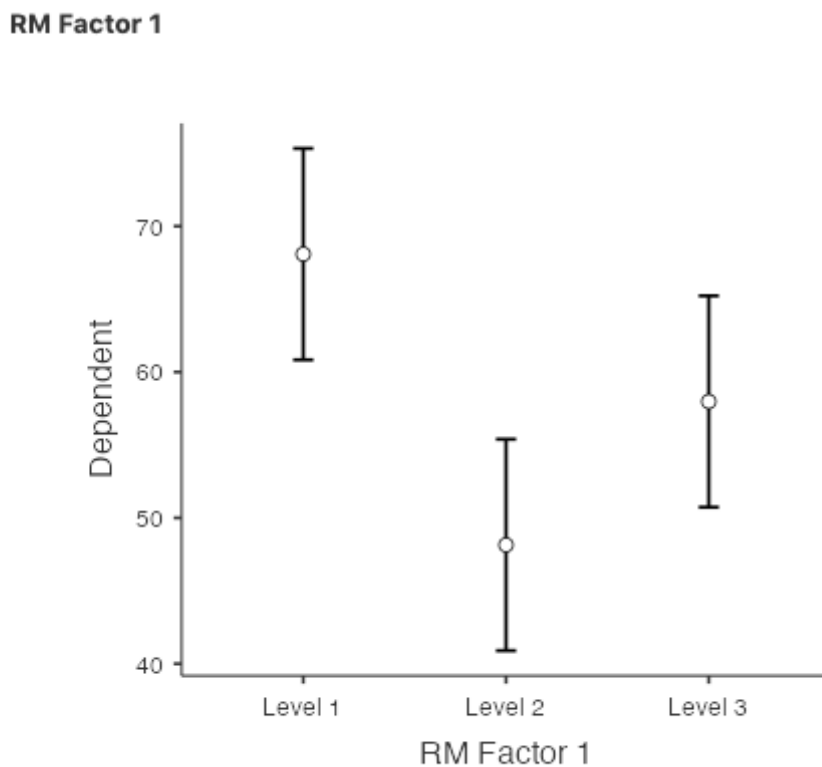
Figure 1A, Marginal Means ANOVA Plot for Extraversion

RM Factor 1

Figure 1B, Marginal Means ANOVA Plot for Open-Mindedness
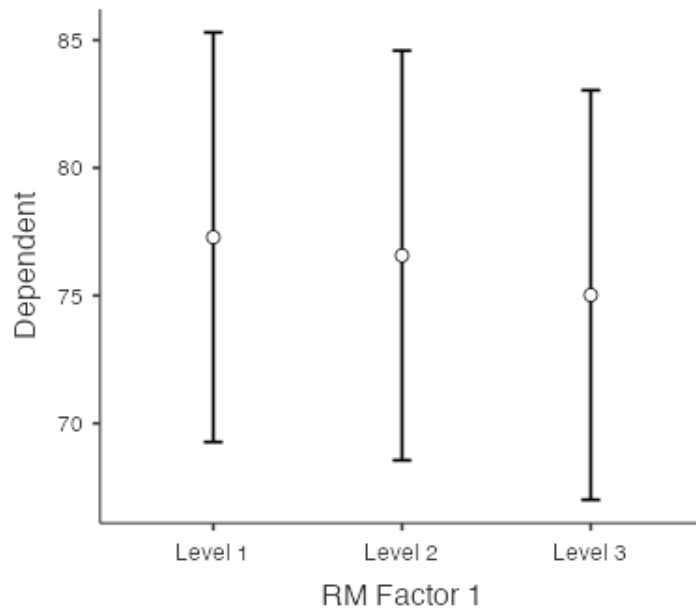
Figure 1C, Marginal Means ANOVA Plot for Negative Emotionality

RM Factor 1
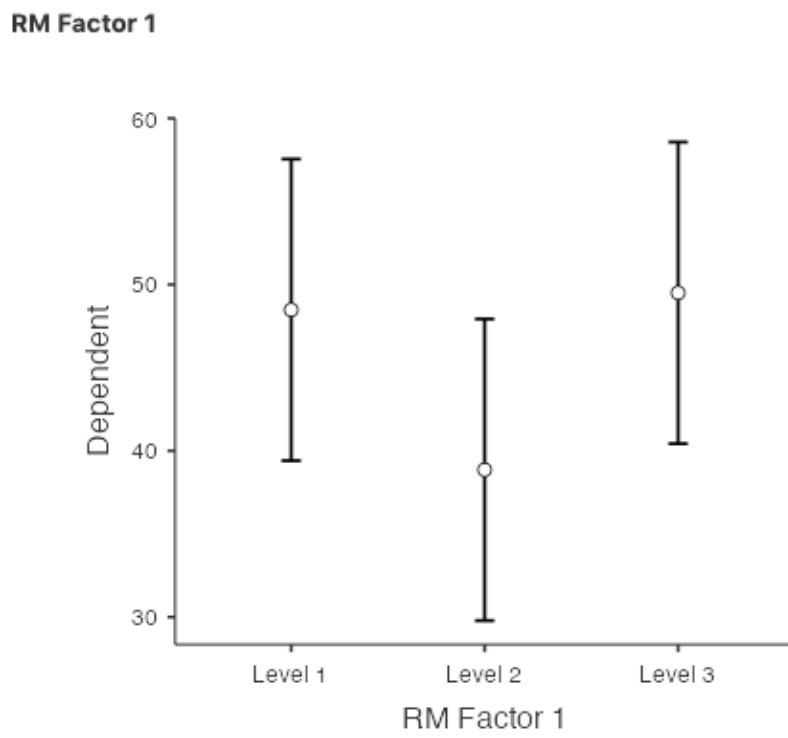

Figure 1D, Marginal Means ANOVA Plot for Agreeableness
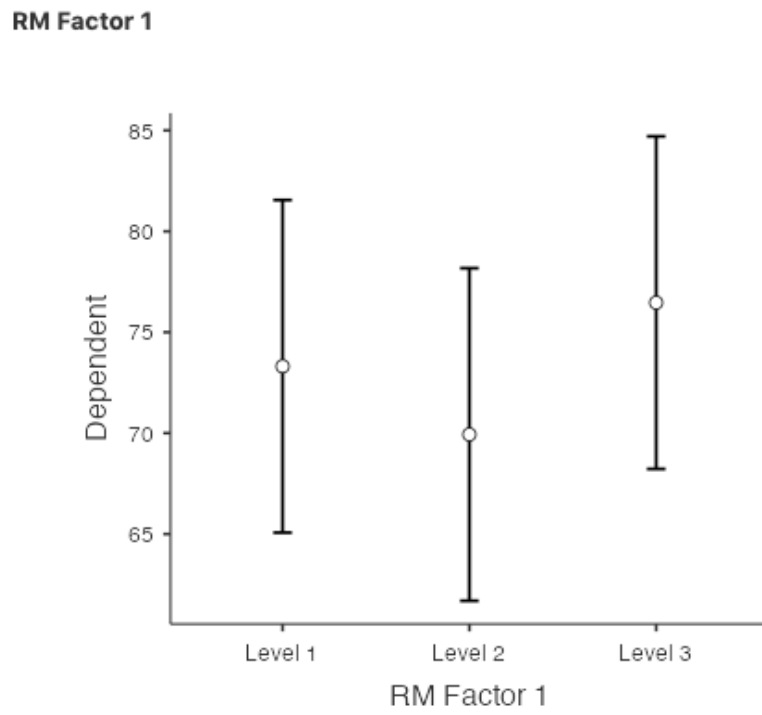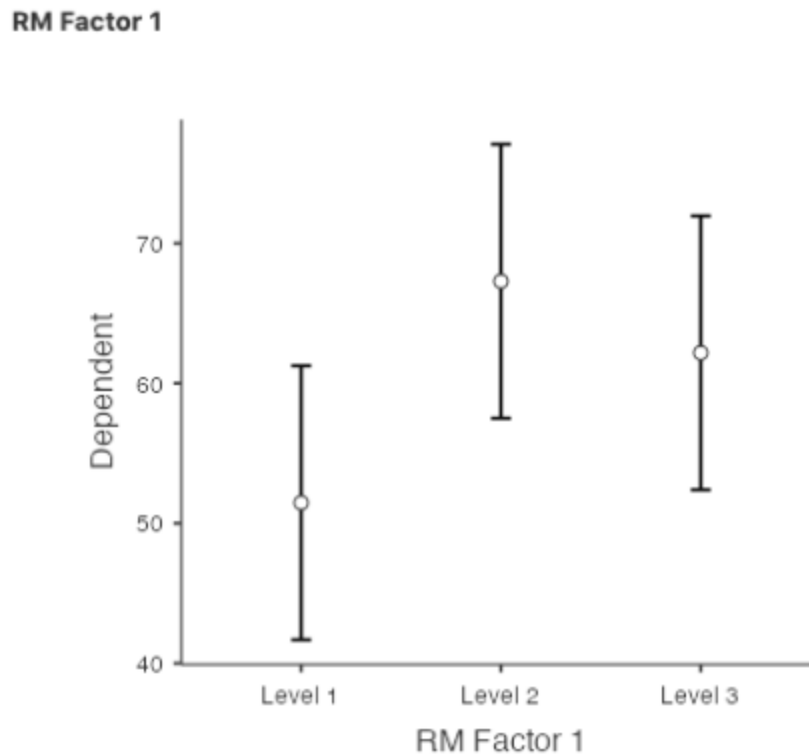
RM Factor 1

Figure 1E, Marginal Means ANOVA Plot for Conscientiousness

RM Factor 1

Extraversion

For Extraversion, the one-way repeated measures ANOVA indicated that participants'
scores changed over time, $F(2, 30) = 7.65$, $p = .002$. As shown in the marginal means plot of
Figure 1A, people rated their partners more accurately after 5 minutes than after 1 minute. Tukey
post-hoc tests indicated that although there was a discrepancy between the first partner-rated
scores on Extraversion and the self-rated scores after 1 minute of interaction, $p = .001$, this went
away after the 5 minute interaction, although partner's ratings were still not particularly in-line
with self-ratings, $p = 0.13$. Additionally, this test revealed that the first and second partner-rated
measures were not very close in scores, $p = 0.15$. This does not support my first and second
hypotheses, namely that the first partner-rated measure would be quite accurate and that the

second partner measure would not change much from the first. Correlational analysis revealed a

negative correlation between the self and first partner measure, that participants tended to rate

their partner's in the opposite direction than those partners rated themselves on Extraversion,

$r(14) = -0.35, p = 0.181$. However, this negative correlation dissipated after the 5 minute

interaction and became moderately positive, $r(14) = 0.30, p = 0.26$. Both partner measures were

not even marginally correlated, $r(14) = -0.08, p = 0.77$ suggesting that participants did not stick

strongly to their original judgements of their partner's Extraversion. This is shown in the

moderate correlation as it signals that the latter ratings were not based upon the previous ratings

in a discernible relationship.

Open-Mindedness

For Open-Mindedness, the one-way repeated measures ANOVA indicated that

participants' scores did not change over time, $F(2, 26) = 0.08, p = 0.92$. As depicted in Figure

1B, participants did not change their ratings of their partners very much, however they were

slightly more accurate after the first interaction. This is in line with the predictions that

participants would be accurate in their personality assessments after one minute, and that there

would not be a change between the first and second partner measure. However, once again this

was a prediction of the null hypothesis which is fundamentally more likely than a statistically

significant difference between groups. None of the three post-hoc Tukey tests revealed

significant or anywhere close to significant differences between any of the measures which also

is in line with my prediction. Correlational analysis revealed a very weak negative relationship

between the self-rated Open-Mindedness score and the first partner-rated measure $r(12) = -0.22$,

$p = 0.46$. This was also true for the second partner-rated measure, $r(13) = -0.24, p = 0.38$,

indicating that participants tended to think their partners were very slightly less open-minded

than they actually were. The first and second partner measures had a quite weak relationship,

$r(12) = 0.41, p = 0.15$. These findings seem to gently support my second prediction that the first

and second partner measures would not change.

Negative Emotionality

For Negative Emotionality a one-way repeated measures ANOVA revealed that there was

a weak change in participants' scores over time, $F(2, 26) = 1.91, p = 0.17$. However, post-hoc

Tukey tests revealed that although participants' evaluations of their partner's Negative

Emotionality were inaccurate after the first interaction, $p = 0.26$, they were quite accurate in

assessing their partner after the second longer interaction, $p = 0.98$. This can be visualized in

Figure 1C, where participants initially perceived their partners as lower in Negative

Emotionality, but after the second interaction they perceived their participants' Negative

Emotionality as greater, and more accurately. This does not support my prediction that the first

partner measure would be accurate, nor does it support the prediction that participant's would not

change their personality judgements between interactions. These observations were also reflected

in the correlational analysis, wherein there was a negative relationship between the self measure

and first partner measure, $r(12) = -0.17, p = 0.571$. However, there was a weak but positive

relationship between the self and second partner measure, $r(13) = 0.33, p = 0.24$. Interestingly,

there was quite a lack of relationship between the first and second partner measures, suggesting

participants did not anchor their second evaluations of their partner's Negative Emotionality on

their first evaluation which goes directly against the prediction that they would not change their

judgements very much, $r(13) = -0.03, p = 0.91$.

Agreeableness

For Agreeableness, the one-way repeated measures ANOVA indicated that there was a

weak, but somewhat present, change in participants' scores over time, $F(2, 28) = 1.43$, $p = 0.26$.

Several post-hoc Tukey tests indicated that neither the first partner-rated measure, $p = 0.66$, nor

the second, $p = 0.70$, were especially different from the participant's self-rated Agreeableness.

However, there was a clear difference between both of the partner measures, $p = 0.23$, indicating

that participants seemed to change their opinion of their partner's Agreeableness between

interactions. This may be what is responsible for the weak difference between groups.

Correlational analysis indicated that the first partner measure was somewhat related to the self

measure, $r(13) = 0.37$, $p = 0.17$ and therefore seemed to be somewhat accurate, however the

relationship between the second partner measure and self measure was much stronger, $r(13) =$

0.57, $p = 0.03$. This suggests that participants garnered more accurate evaluations of their

partner's Agreeableness after the longer subsequent interaction. Interestingly, the first and second

partner measures were significantly related, $r(14) = 0.77$, $p < .001$. In examining the marginal

means plot in Figure 1D, it can be reasoned that participants as a group seemed to make a similar

and strong positive adjustment of their judgements of their partner's Agreeableness. These

findings weakly support the first prediction, that partners would accurately judge each others'

personalities after one minute of interaction. Yet, as this prediction is supported by statistics that

indicate no difference, or the null hypothesis, it is not strongly supportive of the first prediction

as these first partner judgements were not especially accurate (this is visualized in Figure 1D).

These findings on Agreeableness contradict the second prediction, that there would not be much

change between partner measure values, but in a curious way as the adjustments made between

the partner measures were significantly related and in a positive direction.

Conscientiousness

A one-way repeated measures ANOVA for Conscientiousness revealed that there was a

significant difference in participant scores' over time, $F(2, 28) = 3.46$, $p = 0.05$. Post-hoc Tukey

tests, as well as the marginal means plot in Figure 1E, indicated that there was a significant

difference between the self scores of Conscientiousness and the first partner scores, $p = 0.04$.

Additionally, there was a clear difference between the second partner scores and the self scores, p

$= 0.21$. These tests also showed there was not very much difference between the first and second

partner measures, $p = 0.69$. These correlational analyses supported the ANOVA results. The first

partner measure and the self measure had almost no relationship, $r(13) = 0.03$, $p = 0.92$, and

neither did the second partner measure and the self measure, $r(13) = 0.06$, $p = 0.84$. However, the

first and second partner measures were significantly positively related, $r(13) = 0.61$, $p = 0.02$.

These findings contradict the first hypothesis, namely that the first partner assessment of

Conscientiousness would be accurate to the self assessment of it. Instead, as seen in Figure 1E,

they are quite different. My second prediction however, that there would not be a difference

between the partner measures, was supported by the strong relationship and little group

difference between partner judgements of Conscientiousness.

Friendship Factors

Similarity

As for Similarity, the average initial score for similarity was somewhat neutral, $M = 47.9$, $SD = 19.3$ and the average partner evaluation of similarity did not seem to change very much in the second partner measure, $M = 47.9$, $SD = 23.4$. A paired-samples t-test supported this observed lack of change, $t(14) = 0.61$, $p = 0.55$. The similarity scores on each assessment were also strongly related, $r(13) = 0.68$, $p = .005$. These findings support the prediction that the ratings of similarity would not change between the first and second interactions.

Likability

The average score on likability was somewhat high after the first interaction, $M = 70.1$, $SD = 13.9$, but seemed to change somewhat on the second assessment, $M = 75.0$, $SD = 16.4$. A paired-samples t-test indicated that participants did significantly adjust their scores between the assessments, $t(14) = -2.17$, $p = 0.05$. A correlational analysis revealed that partners' ratings of likability at the first and second time point were strongly positively related, $r(13) = 0.70$, $p = .004$. These results indicate that while participants did change their ratings of their partner's likability from the first to the second interaction, they did so in a positive way, tending to judge their partner as more likable after the second interaction. This goes against the prediction that likability scores would not change between interactions, however it is tangentially interesting in the significantly positive adjustment of likability scores.

Potential for Friendship

The average rating of partners' potential for friendship was somewhat neutral after the first interaction, $M = 56.8$, $SD = 15.9$. After the second interaction there seemed to be an increase in the average ratings of friendship-potential, $M = 65.4$, $SD = 21.1$. A paired-samples t-test confirmed that there was a significant change in ratings of partners' potential for friendship, $t(14)$

= -2.78, p = 0.02. Friendship-potential scores on the first and second assessments were also

positively related to a significant level, $r(13)$ = 0.77, $p < .001$. These findings show that

participants' evaluations of their partners' potential for friendship were somewhat neutral

(although slightly more positive than negative) after the 1-minute interaction, however overall

they tended to think their partner had a greater potential to be their friend after the second

interaction.

Discussion

The first question this study sought to answer was: is 1 minute of first-time interaction

between strangers enough for them to make accurate personality judgments of each other? My

hypothesis was that people would indeed be somewhat accurate in their personality judgments

(judgements of their partner's Big-5 Personality Domains) of a stranger after interacting for 1

minute. However, this did not seem to be the case. Although participants appeared to be weakly

accurate in judging their partner's Agreeableness and Open-mindedness after 1 minute, they

were quite off in their perceptions of the Extraversion and Conscientiousness of their partner as

well as somewhat inaccurate in assessing their Negative Emotionality. The second question of

interest was whether the personality judgments made after the first interaction were strong

enough that they would resist updating, or change, over the course of the second interaction and

therefore be identical to the judgements made after the first interaction. This was hypothesized to

occur, and the results from this experiment appear to both support and not support this

hypothesis. For the personality domains of Conscientiousness and Open-mindedness participants

tended to stick near their original judgments, however judgments of Agreeableness, Negative

Emotionality, and especially Extraversion seemed to differ substantially from their first

impressions. Although, it seems that participants' evaluations of their partners' Agreeableness

tended to be positively adjusted to a similar degree between the first and second interactions. The

third research question of interest was concerned with impressions of friendship-related factors.

It asked whether people make strong and quick enough evaluations of strangers along

dimensions related to future closeness or friendship such that these evaluations endure potential

updating over a longer interaction. I hypothesized that this would be the case, such that

participants' friendship-related impressions of their partner would not change between the 1

minute and 5 minute interaction. The results for similarity seemed to support this hypothesis, as

ratings did not change substantially between interactions, however ratings of likability and the

potential for friendship did seem to change, albeit in a similarly positive direction.

Before delving into a richer discussion of the findings from this study, some of the

limitations found necessitate addressing. Firstly, this experiment was conducted during the

Covid-19 pandemic. This meant that any social interaction in this study was required by the

overseeing institution of Bard College to be online and not in-person. It has been well

documented that a substantial amount of social information can be conveyed through body

language, and therefore some of the typical information conveyed in an in-person interaction

may have been lacking in the participant Zoom sessions. Secondly, the sample size for this

experiment was small, $N = 16$. This was at least partially due to the overall Bard College

population size being somewhat small (approximately 2000 undergraduates) as well as

advertising (in-person attendance is lower than in typical years) and time constraints. There was

also no guaranteeing that participants had never even seen each other before, as the original

check for previous-acquaintance made use of name recognition, although no participants

reported having met their partner previously. Participants' conversations were also unguided and

their Zoom backgrounds not standardized. Although this was to try for a more natural

interaction, it may have allowed additional unwanted variability in participant presentation.

Finally, the personality measure used (the Big-5 Inventory-2 Extra small version) is a simplified

15-item version of the Big-5 and as such is not as accurate or previously validated as full

versions of the Big-5 or Big-5-2.

This study has a unique niche in the literature on "thin-slices", impression formation, and

friendship/acquaintanceship. That is, it is a product of integrating several ideas from those

respective fields, and therefore exists at one of the intersections of those fields; the impressions

formed by strangers during brief first-time interactions. This experiment aimed to begin to

investigate the strength of some of the initial and somewhat more automatic impressions made

when evaluating a potential acquaintance, as well as the accuracy of those impressions, while

also piloting a paradigm for studying first impressions between strangers in a manner similar to

experiments concerning "thin-slices". Although the results from this study are not as significant

as anticipated in the hypotheses, in that the 1-minute perceptions were not strongly accurate or

resilient in general, they are not incongruous with the literature on "thin-slices" and first

impressions. Especially when considering this study sought to pilot an interactive (involving

active participation from both the "perceiver" and the "perceived") "thin-slice" impression

paradigm.

In the majority of "thin-slice" studies, and many on impression formation, participants'

are often exposed to the same image or video clip of another person and asked to make certain

judgements. Several of these studies have noted how variability in the judgements made can be

partially accounted for by biases or personality differences in the "perceivers", which play a significant role in impression formation. Todorov et al, in an experiment investigating the effects of gender and personality on first impressions, noted that the *perceivers'* personality and gender explained some of the differences in judging trustworthy/untrustworthy faces in first impressions (2015). In another experiment, Porter & Todorov also found that simply showing a different image of an individual's face led to differences in social attributions, including personality, and preferences for the perceiver of the image (2014). These findings suggest that peoples' automatic judgements of others are often strongly affected by the way the other person is presented. In a fluid social situation such as in the "Fast-Friends" study, individual participants may have different motivations in how they present themselves, both physically and in their conversation. In the "Fast-Friends" study participants had the ability to present themselves how they please (neither their conversation nor Zoom background was standardized) which may affect the accuracy of their partner's perceptions (and how they might change as they interact more with their partner). Todorov et al's impression studies are also "thin-slice" studies as they exposed participants to representations (in these instances it was images of faces) of others for short amounts of time (in the later study it was just 40-ms) and examined the judgements or perceptions that are made. However, as noted these studies concern themselves with social perceptions of a static image, rather than those developed during dynamic social interactions.

Other "thin-slice" impression studies have made use of video clips rather than images to demonstrate the accuracy of quick, automatic judgements. Carney, Colvin, & Hall also investigated "thin-slice" judgements by examining the predictive validity of personality judgements depending on the length of the "thin-slice" exposure, which was in their case a video

of a college student during a "get acquainted" activity (2007). They found that the accuracy of

personality assessments seemed to increase with the exposure length, or the longer the snippet of

video that a participant was exposed to, the better they assessed the person in the video's

personality. An inspiration to my study previously noted was their finding that the 1 minute

exposure seemed to have the best length to accuracy ratio, despite the 5 minute exposure being

the most accurate. However, they also found differences in accuracy depending on the Big-5

personality domains in question and the length of exposure, similar to the results from my study.

Interestingly, which personality domains needed more time to be accurate differed between our

studies in an almost opposite manner, as the accuracy in Negative Emotionality, Extraversion,

and Conscientiousness was better for their participants after a brief exposure. The results from

my study seem to be somewhat in-line with these findings, as accuracy generally increased from

the 1-minute to the 5-minute conditions. However, the inaccuracy of the personality perceptions

after the 1-minute interaction was not in line with the more promising "thin-slice" studies. Very

important to note in this is the key difference between those "thin-slice" and impression

formation studies is that these studies lacked actual interaction between the targets and the

"perceivers", wherein this study does not.

When there is actual social interaction, a multitude of other factors come in and affect

perceptions. Differences in personalities of participants in social experiments have been linked to

differences in social actions, in perceptions of personality, and in perceptions of interaction

quality which may affect all the previous impressions (Berry & Hansen, 2000). This additional

plethora of social information presumably had an impact in the "Fast-Friends" results as the

manner of interaction between participants most likely affected perceptions of personality and of

friendship potential. In fact it was intended to, as this study involved repeated social interaction in an effort to examine if integrating "thin-slice" and "get-acquainted" experimental paradigms would be useful in finding a way to compare and examine the strength of automatic versus controlled processes in perceptions of personality/friendship potential (Wyer & Srull, 2014). Our results suggest that automatic impressions of personality/friendship-potential formed during the first minute of interaction between strangers are not very resilient, however they are not unrelated to future impressions according to our results. Ratings of friendship potential (this includes all measures related to closeness: similarity, likability, and the envisioned potential for future friendship) after the 5-minute interaction were strongly related to those found from after the 1-minute interaction, suggesting that they based their later judgements on their earlier ones, somewhat supporting Wyer & Srull's dual-process model of impression formation (2014). It also suggests that the initial interaction between strangers may indeed serve as a basis for later judgements of them along dimensions related to friendship.

The findings from my study do seem to demonstrate the potential of the paradigm despite the lack of a plethora of hypothesis-confirming results. Specifically, there seem to be some trends in the findings of this pilot study that are somewhat in line with previous "thin slice" research and necessitate the further adaptation and innovation of this "thin-slice" first impression paradigm. Despite the expected increase in the amount of social information conveyed in an actual interaction as compared to a video clip, the expected results were not substantially out of line with previous impression formation or "thin-slice" studies. Despite the increased variability in perceptions that results from an interaction as compared to a typical "thin-slice" study, participants were okay at assessing their partner's Agreeableness and Open-mindedness after just

1-minute of interaction. Additionally, impressions of Conscientiousness and Open-mindedness were somewhat resilient to updating after the 5-minute interaction. Additionally, although friendship-potential impressions were not resilient to updating as predicted, they did update in a similar manner- suggesting a relationship between our first impressions of others and later updating of those impressions. Although the other results did not support my original hypotheses, the research questions of interest within this study and its experimental paradigm necessitate more exploration, at least for sake of the trends noted in the experiment.

This study essentially uses a 1-minute interaction as a "thin-slice" length exposure between participants in order to see how much predictive validity the original personality or friendship/acquaintanceship judgements have in perceiving the personality of the other person, and in determining or anchoring the later opinions of personality and friendship-potential after the "long-run" 5-minute interaction. Playing with these lengths of interactions could be a useful variable in further research, similar to the way Carney, Colvin, & Hall manipulated the "thin-slice" exposure length to see which period of exposure is the most accurate or has the highest accuracy to exposure length ratio. Hypothetical future experiments could make adjustments to the experiment's interaction lengths to examine if an initial interaction of any length can have strong predictive validity in judgements, and how long that might need to be. Additionally, by implementing a longer-term experiment, future researchers could lengthen the amount of interaction in the second exposure or make use of several later interactions in order to compare first time impressions to those that are held after an acquaintanceship or longer-term bond has developed between participants, similar to the "get-acquainted" paradigm of Sprecher, Treger, & Wondra (2013). Facilitating the development of an acquaintanceship between

participants would allow a more longitudinal analysis of the impacts initial judgements can or

could have on an actual relationship, albeit one that was begun in a lab setting. This continuation

of the "Fast-Friends" paradigm would also allow for a fuller investigation into the impacts of

first impressions on the development of a friendship, something my friendship potential

assessment factors attempted to get at the foundations of. However the length of the interaction

periods, or of the entire experiment need not be the only change in future experimentation with

this paradigm.

Variables other than personality and friendship-potential could also be used in future

experimentation to assess if and how different types of relationships could be affected by first

impressions such as investigating how initial interactions affect non-student-to-student

relationships like respect in an employee-employer relationship, or reciprocality in peer-peer

workplace relationship. Extending this experiment to include or specifically examine different

populations would also be an interesting course of research, to investigate if the power of initial

impressions varies for different ages and how that bears out in their perceptions of each other

(whether it be same-age or different-age participant dyads). Another potential avenue for future

exploration with this paradigm would be to record the initial interactions (and the subsequent one

or multiple) and code the social behavior exhibited by participants. Although coding social

interaction has its share of flaws, it presents the opportunity to examine if and how certain social

behaviors might affect perceptions in initial interactions. It would be a significantly more

complex continuation of this experiment, however it would allow future researchers to

investigate how factors like engagement or mimicking affect interpersonal judgements. It would

also allow for other interaction details that were not examined in this study, like conversation

topics, to be coded and considered in analysis. Finally, asking for more open-ended feedback from participants such as about their feelings and states of mind at the time of interaction would likewise be useful in examining how contextual, personal, and social forces interact to affect initial impressions and interactions.

The results from this study did not support the original hypotheses, however they did indicate that there is meaningful potential for the experimental paradigm. In context with the literature on "thin-slices", impression formation, and acquaintanceship/friendship factors, my findings indicate that initial impressions have the potential to be an anchoring point for some interpersonal judgements related to acquaintanceship/friendship. Additionally, although personality perceptions were not accurate after the shorter interaction, there was a trend of increasing accuracy after the second interaction (although not for every domain). Adjusting the experimental paradigm in future research, such as lengthening the shorter interaction, may allow for a more in-depth examination of the predictive validity of initial impressions and what constitutes an initial impression with predictive weight (if any). This researcher ultimately hopes that this study will have added to the respective bodies of impression formation and "thin-slice" literature, as well as their junction, by piloting a paradigm that uses "thin-slices" of an active social interaction.

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Appendix:

Appendix A: Informed Consent Form

BARD

A College of the Liberal Arts and Sciences
Division of Science, Mathematics & Computing

INFORMED CONSENT AGREEMENT

Title: First Impressions
Principal Investigator: David Benson, Psychology
Institution: Bard College

Background. In the current research study, we are interested in how individuals who have never previously met interact and perceive each other.

What you will do in the study. You will answer some questions about yourself, engage in two conversations with a fellow student you have not met before, and answer three relevant assessments.

Risks and Benefits. Some participants may find the process of meeting a stranger stressful. Participants may make a new friend or acquaintance.

Compensation. In exchange for participating in the experiment, you will receive payment of $7.

Your rights as a participant. Your participation in this experiment is completely voluntary, and you may withdraw from the experiment at any time without penalty. You may withdraw by exiting the Zoom meeting that is your online experimental session. We will tell you more about the study and our hypotheses at the end of the session.

> **Contact**: If you have questions about this research, please contact David Benson, at db6915@bard.edu

Confidentiality. The data relevant to your participation in this study will only be kept on the lead investigator's personal computer and a Bard Psychology department's computer. The only people with access to this department computer will be the principal investigator David Benson and the overseeing professor of Psychology, Kristin Lane, however the principal investigator will be the only one using and accessing the relevant data. No identifiable information will be disclosed in the presentation of results from this study. Data may be uploaded, with identifying information removed, to a data repository such as the Open Science Framework.

Agreement. The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time without incurring any penalty. **I certify that I am at least 18 years of age.**

If you have questions about this study, please contact David Benson at db6915@bard.edu. If you wish to get in touch with the faculty member overviewing this experiment please contact Kristin Lane, Associate Professor of Psychology & Chair, Division of Science, Mathematics, and Computing at lane@bard.edu. If you have questions about your rights as a research participant, please contact the Bard College Institutional Review Board: irb@bard.edu.

By checking the box below, I am indicating that I am in agreement with the above statement of consent.

[ ] I am at least 18 years of age and provide my informed consent to participate in this survey

Appendix B: Debriefing Form & Script

Debriefing Form:
Thank you for participating in this study!

The primary goal of this study was to examine the strength and accuracy of interpersonal judgements of personality and friendship-disposing factors (likability, similarity, and friendship-potential) made after the first minute of conversation between two previously unacquainted people. We hope that this study will demonstrate that judgements made after the first minute of acquaintance are fairly strong and surprisingly accurate.

What is the Personality Test I took?
This experiment used an extra small (XS) abbreviated version of the Big-5-2 Personality Inventory. This version created by Soto & John (2017). For more information on it, please see:
http://www.colby.edu/psych/wp-content/uploads/sites/50/2013/08/Soto_John_2017b.pdf

What did the Friendship/Acquaintanceship Factors Assessment measure?
This three question assessment that you took thrice assessed firstly the baseline dispositions participants have towards strangers along three dimensions relevant to friendship development: similarity, likability, and potential for friendship. The next two versions of this that you took assessed your judgements of your partner along these dimensions, as a proxy for friendship-disposing factors. The goal was to use this questionnaire to examine whether people are capable of making the judgements that affect friendship in the first minute of meeting someone, or if those judgements take longer to cement.

Important information
In Psychology there is a body of research concerned with "thin-slices" of expressive behavior, meaning small excerpts (typically ranging from 15 seconsds to under 5 minutes) of expressive behavior that psychologists have used to explore the speed and accuracy of certain judgements. For example in one study two groups of participants rated teachers along dimensions related to teaching, such as class engagement. One group did this after only watching a 30-second video clip of the teacher in the classroom and the other group did this after taking a full class taught by that teacher and rating them at the end of the semester. The scores from the 30-second assessment were found to be valid predictors of the end of the year scores, suggesting we make certain interpersonal judgements quite fast yet these can be quite accurate (at least in terms of our perceptions staying the same). This study wished to extend that research into a more interactive (at least between participants) experimental paradigm- a brief introductory conversation (1 minute) and a subsequent more natural-length one (5 minutes). This was to see how strong our quick interpersonal judgements are, and if they are accurate insofar as they do not update after a longer conversation.

Due to the fact that aspects of the study do contain some personal information about participants, please do not share this debriefing form or any information about the study with any other students, as this could negatively impact the study.

If you have any questions, concerns, or would like to learn more about the study and its results, contact David Benson at db6915@bard.edu. If you have any questions about your rights as a participant, contact the Chair of the Institutional Review Board, Bard College at irb@bard.edu.

Thank you again for participating in this study!

Debriefing Script:

"Thank you all so, so much for participating! I'm going to share a debriefing form in the chat, which gives some information on the study and its goals as well as your own participation. I'm also going to go over a bit of information about the study now.
The main goal of this study was to examine the strength and accuracy of judgements of personality and friendship-disposing factors, like similarity and likability, that are made after the first minute of conversation between two strangers.

The personality questions you answered were actually an extra small (XS) abbreviated version of the Big-5-2 Personality Inventory. The other questions you answered were in order to measure factors that seem to be related to increased closeness or even friendship between two people.

We hope that this study will demonstrate that judgements made after the first minute of conversation are fairly strong and surprisingly accurate. Which has been supported in Thin-Slice psychology literature that was part of the inspiration of this study.

Please don't share detailed information about the study with others, so that their participation will be as unbiased as yours.

If you have any questions, concerns, or would like to learn more about the study and its results, you can contact me.

As for your money, after the session I will be emailing to ask for your venmo account-name. You will be venomed by a Bard faculty member shortly. Feel free to contact me if you have any issues, or don't have venmo, and thank you so much for participating.

If there are no more questions I'll be ending the Zoom."

<end zoom>

Appendix C1: SELF, Friendship/Acquaintance Factors Assessment Items

Items:

Similarity:

When you meet a new person at school, how similar is their personality to yours on average? (0 = Not at all, 100 = Identical)

Liking:

When you meet a new person at school, how likable are they on average? (0 = Not likable at all, 100 = Extremely likable)

Likelihood of Future Friendship:

How likely are you to strike up a new friendship when you meet a new person at school? (0 = Extremely unlikely, 100 = Extremely likely)

*Questions are asked in reference to meeting new acquaintances at school. As all participants are Bard students, this is to give a frame of reference for participants such that they do not need to reflect on their average attitudes towards new people over the course of their life. Instead participants are prompted to reflect on their attitudes at school towards new people, giving them a smaller section of life to draw conclusions about their attitudes from.

Appendix C2: PARTNER, Friendship/Acquaintance Factors Assessment Items

This second assessment asks participants to rate their experimental partner/their judgements of their partner along dimensions related to friendship and closeness in the acquaintance process. The questions that the participants were asked twice (after their 1-minute and after their 5-minute conversation respectively) about their experimental partner are as follows:

Items:

Similarity:
How similar do you feel to the participant with whom you are working on this study?
(0 = Not at all, 100 = Identical)

Liking:
How much do you like the participant with whom you are working on this study?
(0 = Not likable at all, 100 = Extremely likable)

Likelihood of Future Friendship:
In the future, to what extent do you feel you could be friends with the participant with whom you are working on this study?
(0 = Extremely unlikely, 100 = Extremely likely)

Appendix D: Big-5-2XS Personality Inventory

Below is the questionnaire that makes up the Big-5-2XS Personality Inventory by Soto & John (2015) that was used in this experiment, as well as the scoring key.

Participants answered this questionnaire by using a sliding scale (rather than the original likert scale response) to rate their agreement or disagreement with each statement about themselves *before* their first conversation with their experimental partner. See below an example of the sliding scale used.

Participants were also asked to complete an assessment **of their partner** twice, with these same questions and sliding scale. They were prompted to consider their partner with each statement (**see prompt below**) and to rate them with the sliding scale responses both after their first 1-minute conversation, and after their subsequent 5-minute conversation.

For this next segment, you will once again be asked to rate your agreement or disagreement with several statements about **your Study Partner** in this experiment.

Please take each _____ portion of the following statements to represent your study partner's name.

If you have any questions please message the experimenter conducting the experiment in your Zoom chat.

The Big Five Inventory–2 Extra-Short Form (BFI-2-XS)

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

1	2	3	4	5
Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree strongly

I am someone who...

1. ___ Tends to be quiet.
2. ___ Is compassionate, has a soft heart.
3. ___ Tends to be disorganized.
4. ___ Worries a lot.
5. ___ Is fascinated by art, music, or literature.
6. ___ Is dominant, acts as a leader.
7. ___ Is sometimes rude to others.
8. ___ Has difficulty getting started on tasks.
9. ___ Tends to feel depressed, blue.
10. ___ Has little interest in abstract ideas.
11. ___ Is full of energy.
12. ___ Assumes the best about people.
13. ___ Is reliable, can always be counted on.
14. ___ Is emotionally stable, not easily upset.
15. ___ Is original, comes up with new ideas.

Please check: Did you write a number in front of each statement?
BFI-2 items copyright 2015 by Oliver P. John and Christopher J. Soto.

Scoring Key

Item numbers for the BFI-2-XS domain scales are listed below. Reverse-keyed items are denoted by "R." For more information about the BFI-2, visit the Colby Personality Lab website (http://www.colby.edu/psych/personality-lab/).

Extraversion: 1R, 6, 11
Agreeableness: 2, 7R, 12
Conscientiousness: 3R, 8R, 13
Negative Emotionality: 4, 9, 14R
Open-Mindedness: 5, 10R, 15

Citations for the BFI-2 and BFI-2-XS

Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113,* 117-143.

Soto, C. J., & John, O. P. (2017). Short and extra-short forms of the Big Five Inventory–2: The BFI-2-S and BFI-2-XS. *Journal of Research in Personality, 68,* 69-81.

_____ is someone who tends to feel depressed, blue.

Disagree Strongly   Agree Strongly

0   100
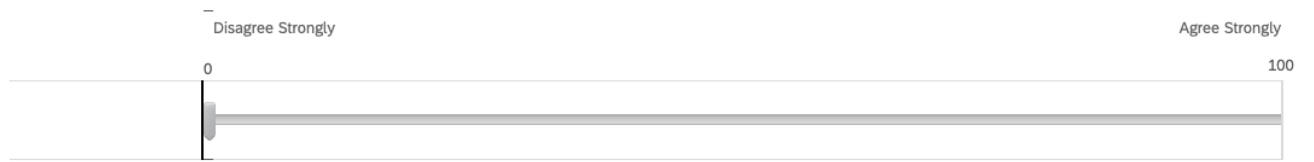
Appendix E: Visualization of Procedure
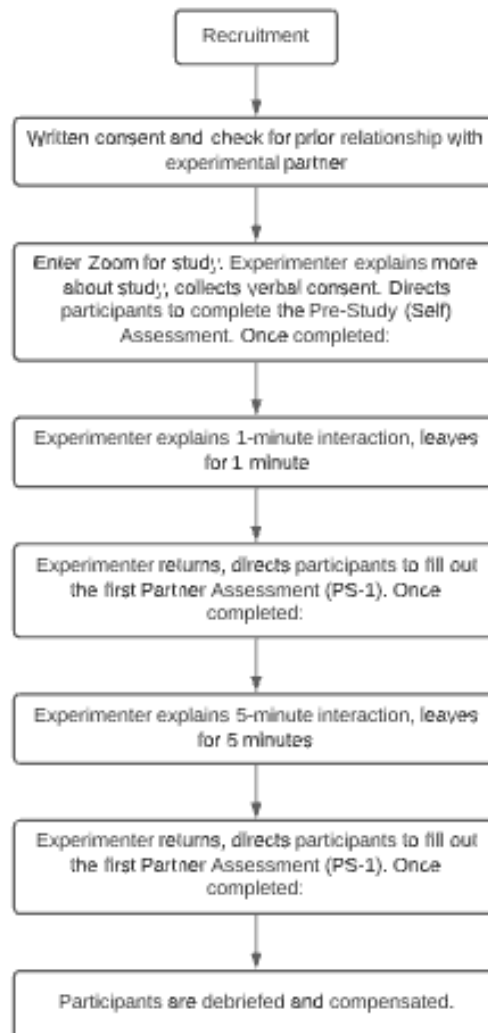
Appendix F: Script for the Explanation of the Consent Form

Script for Explanation of Informed Consent:

<wait until both participants arrive to the Zoom meeting, then turn on experimenter's microphone>

"Hello! Thank you so much for participating in the Fast-Friends study. My name's David and I'll be the one conducting your experiment session today. If you could please turn off your cameras and microphones for this section that would be great.

Please bear with me because I'm going to go over a few things before we get started.

Firstly, I'm going to verbally review the informed consent agreement you both have signed and sent to me.

"Firstly, Your rights as a participant in this experiment: your participation in this study is completely voluntary, you may leave at any point by exiting the Zoom session.

Confidentiality. The data from this study will only be kept on my, the Principal Investigator's computer, and a Bard psychology department computer. There won't be any identifiable information disclosed in the results and any assessments you take online will not be matched to your name so I won't know your answers.

**You need to be 18 or older to participate so please let me know if that isn't the case.
Finally,**
You may withdraw at any time and still be compensated.

If you have questions about this study, please contact David Benson at db6915@bard.edu or the overseeing professor of psychology- Kristin Lane. I can provide her email if necessary.

Okay, that's it for the consent form if you have any questions you can ask them now."

-Answer any questions-

"Great, then If you understand this consent form and consent to the experiment please let me know now by verbally saying I consent."

<Pause for consent>

Appendix G: Poster Advertisement

Appendix H: Sliding-scale Response Sample Items:

_____ is someone who tends to feel depressed, blue.
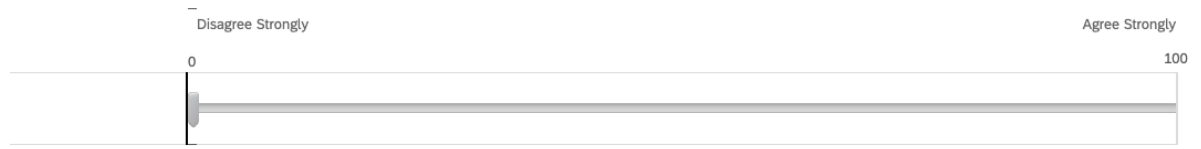
Disagree Strongly   Agree Strongly

0   100

In the future, to what extent do you feel you could be friends with the participant with whom you are working on this study?

Not at all   Very much

0   100

Appendix I: Full Script of Experiment's Procedure

<wait until both participants arrive to the Zoom meeting, then turn on experimenter's microphone>

"Hello! Thank you so much for participating in the Fast-Friends study. My name's David and I'll be the one conducting your experiment session today. If you could please turn off your cameras and microphones for this section that would be great.

Please bear with me because I'm going to go over a few things before we get started.

Firstly, I'm going to verbally review the informed consent agreement you both have signed and sent to me.

Firstly, Your rights as a participant in this experiment: your participation in this study is completely voluntary, you may leave at any point by exiting the Zoom session.

Confidentiality. The data from this study will only be kept on my, the Principal Investigator's computer, and a Bard psychology department computer. There won't be any identifiable information disclosed in the results and any assessments you take online will not be matched to your name so I won't know your answers.

You need to be 18 or older to participate so please let me know if that isn't the case.
Finally,
You may withdraw at any time and still be compensated.

If you have questions about this study, please contact David Benson at db6915@bard.edu or the overseeing professor of psychology- Kristin Lane. I can provide her email if necessary.

Okay, that's it for the consent form if you have any questions you can ask them now."

< Answer any questions >

"Great, then If you understand this consent form and consent to the experiment please let me know now by verbally saying I consent."

<Pause for consent>

"This experiment, as you know by now, is concerned with first impressions between strangers as they have an introductory conversation. But before that, I am going to ask both of you to complete a survey.

I'm going to post the link right here in the chat, and when you're done you can indicate it to me by letting me know in the chat, thank you!"

< Post link into chat >

"Thank you folks for completing the Pre-Study Assessment. Now we will start the introductory part of the experiment, and for that I'll be leaving the meeting for one minute. During this time you'll have the opportunity to have an introductory conversation as if you are meeting before a class. So, I'll ask you two to turn on your microphones and cameras, and with that being done, I'll be back in one minute."

< Start timer once I leave >

Post-First Conversation Prompt:

"Sorry to interrupt, but the time is up so I'm going to ask you folks to please turn off your cameras and microphones. [pause]. I'm going to be posting another assessment like before in the chat that I'd like you two to take. As before you can indicate to me that you're done with the chat message."

< Post Partner Assessment #1 Link in the chat >

Pre-Second Conversation Prompt:

"Thank you! So people, for this next section of the study, I am going to ask you two to continue

getting to know each other for about five minutes. So at this point you may turn your

microphones and cameras back on, and I'll be back in five minutes"

<center>< Start timer once I leave ></center>

Post-Second Conversation Prompt:

"Hello, sorry to interrupt! Now we're entering the final portion of the experiment I will ask you

two to turn off your microphones and cameras again please [pause]. Next, I will be posting one

more survey in the chat for you two to take- please once again signal to me by messaging in the

chat. Thank you!"

<center>< Post Partner Assessment #2 Link in the chat ></center>

"Thank you all so so much for participating! I'm going to share a debriefing form in the chat,

which gives some information on the study and its goals as well as your own participation. I'm

also going to go over a bit of information about the study now.

The main goal of this study was to examine the strength and accuracy of judgements of
personality and friendship-disposing factors, like similarity and likability, that are made after the
first minute of conversation between two strangers.

The personality questions you answered were actually an extra small (XS) abbreviated version of
the Big-5-2 Personality Inventory. The other questions you answered were in order to measure
factors that seem to be related to increased closeness or even friendship between two people.

We hope that this study will demonstrate that judgements made after the first minute of
conversation are fairly strong and surprisingly accurate. Which has been supported in Thin-Slice
psychology literature that was part of the inspiration of this study.

Please don't share detailed information about the study with others, so that their participation will be as unbiased as yours.

If you have any questions, concerns, or would like to learn more about the study and its results, you can contact me.

As for your money, after the session I will be emailing to ask for your venmo account-name. You

will be venomed by a Bard faculty member shortly. Feel free to contact me if you have any

issues, or don't have venmo, and thank you so much for participating.

If there are no more questions I'll be ending the Zoom."

< End Zoom Session >

Appendix J: Demographic Questions

What follows is the email to newly recruited participants inviting them to respond to a few demographic questions;

Hello!

Thank you for expressing interest in the **Fast-Friends study.** This is a study about how people form new acquaintances and friends, and in it you'll have the chance to meet someone new (**on Zoom**) and make some money!

How it works: You'll sign up for a 30-minute time slot out of the available ones for the next 2-3 weeks. On that date/time you'll then arrive at the Zoom meeting link provided for a ~**30 minute Zoom session** where you'll meet someone new and answer a few questions. **In return you'll have the opportunity to make some money ($7) and potentially a new friend!**

If interested please email **db6915@bard.edu** (the Principal Investigator, myself) with the answers to the following questions:

1) Are you a Bard student?
2) Are you comfortable having your camera on during the study's Zoom session?
3) What is your intended/moderated major at Bard?
4) What is your gender?
5) What is your age?

Once your answers are received you'll receive a doodlepoll link with the available time slots and further instructions.

If you have any questions please email myself at db6915@bard.edu.

Thank you!
David Benson
Principal Investigator

Appendix K: IRB Approval

Bard College   Institutional Review Board

Date: January 25, 2021
To: David Benson
Cc: Kristin Lane, Deborah Treadway, Brandt Burgess
From: Tom Hutcheon, IRB Chair
Re: How Fast are "Fast-Friends"? Do People Make Resilient Friendship-relevant Judgments of Strangers Within the First Minute of Interaction

DECISION: APPROVED

Dear David,

The Bard Institutional Review Board has reviewed your revisions and approved your proposal entitled "How Fast are 'Fast-Friends'? Do People Make Resilient Friendship-relevant Judgments of Strangers Within the First Minute of Interaction." Your proposal is approved through January 25, 2022 and your case number is 2021JAN25-D.BEN.

Please notify the IRB if your methodology changes or unexpected events arise.

We wish you the best of luck with your research!

Tom Hutcheon
IRB Chair
thutcheo@bard.edu

Appendix L: Preregistration (see attached images of the Preregistration below)

OSL/PT Preregistration Template

Investigator's Name and Affiliation
(leave blank if this is an anonymous preregistration)

David Benson, Bard College

Date of Preregistration   3/3/2021

Names and Affiliations of Collaborators
(leave blank if this is an anonymous preregistration)

David Benson
Kristin Lane

IRB Status

○ IRB Review Not Necessary
○ Not Submitted Yet
○ Submitted
◉ Approval Received, Date: 1/25/2021

Study Title

How Fast are "Fast-Friends"? Do People Make Resilient Friendship-relevant Judgments of Strangers Within the First Minute of Interaction

VARIABLES

What are your independent / grouping / predictor variables (including mediators and moderators) ? Explain how you operationalize each variable.

Participants will be randomly assigned to partners based upon gender, such that each dyad is the same gender.

What are your dependent / outcome variables? Explain how you operationalize each variable.

Personality Inventory- Big 5-2 Extra Small Version
Friendship Potential- measured by the adjusted manipulation check from the Relationship Induction Closeness Task

List any exploratory variables. These are variables that you included in your study, but are not central to your main predictions.

An assessment (created from the modified RCIT described above) of participant's average feelings towards new acquaintances.

Did you create new, or modify existing, variables for this study? (select all that apply)

☑ Some, or all, variables have been used in prior, published research, and no modifications were made

☑ Some variables were modified from their original form

☐ Some variables were created for this study

If you indicated above that 'Some variables were modified,' describe how you modified existing variables here:

The Relationship Closeness Induction Task (RCIT) manipulation check was used as a measurement of closeness between participants, but instead of a Likert scale to record responses a slider measure was used. The three questions composing this check were also worded in one experimental assessment to measure participants general feelings of closeness towards acquaintances at school.

If you indicated above that 'Some variables were created for this study,' list and describe the variables that you created for this study:

HYPOTHESES

What are your primary study hypotheses / research questions?

To see if participants' opinions of their study partner's similarity, likability and potential for friendship are consistent between the 1-minute and 5-minute interaction (do we only need one minute to determine if we want to be friends with someone, and is it a strong judgement)

Hypothesis: We hypothesize that there will be a positive correlation between both conversations (1 minute and 5 minute) in scores on the Friendship-Potential assessment.

1)To see if one minute of interaction between two strangers is enough for a participant to generate an accurate assessment of a stranger's personality (via the 15 item Big-5-2 Personality Inventory of Soto & John, 2017).
We hypothesize that the Personality Inventories that are filled out for participants' partners after the one minute conversation will not be different from the self-taken Personality Inventory.

2)To see if a one-minute interaction gives the same assessment of personality as a 6-minute interaction (How strong are our first impression of personality).
We hypothesize there will be a positive correlation between the first partner-taken Personality Inventory (after the 1-minute conversation) and the second partner-taken Personality Inventory (after the subsequent 6-minute conversation)

Do you have any exploratory hypotheses / research questions? If so, describe them below.

At the time of this preregistration, describe the status of data collection:

○ No new data collection is required for this project (e.g., meta-analysis)

◉ Data collection has not started for this study

○ Data collection is in progress

○ Data collection is complete

○ Other:

If you selected 'Other' to describe the status of data collection, please explain here:

If you indicated above that data collection is 'complete' or 'in progress,' have you (or anyone else) already conducted any statistical analyses?

○ No data analyses have been performed

○ Some preliminary analyses have been performed, but not those relevant to the primary or exploratory study hypotheses described above (e.g., you calculated descriptive statistics)

○ Some, or all, analyses of the primary or exploratory hypotheses have been performed

If you selected 'Some preliminary analyses have been performed' describe the analyses you have already conducted:

If you selected 'Some, or all, analyses of the primary or exploratory hypotheses have been performed,' you should stop completing this form. Pre-registration of hypotheses MUST occur before you have analyzed your data.

SAMPLING

What is your target sample size? `20`

How was your target sample size determined? (check all that apply)

☐ Power analysis

☐ Target sample size based on convention / past research

☑ Target sample size based on constraints / convenience (e.g., size of subject pool, available money to pay participants, access to participants)

☐ Other:

How will you determine when to stop collecting data (i.e., your stopping rule)?

◉ When the target sample size is reached

○ A particular amount of time has passed (e.g., the end of the semester)

○ Other (describe below)

If you selected 'Other' for your stopping rule, please explain here:

RESEARCH DESIGN

What type of research design
are you using?

○ Experiment

○ Quasi-experiment

◉ Correlational Study

○ Other:

If you selected 'Other' for your research design, please explain here:

EXPERIMENTAL DESIGNS ONLY

If you are conducting an experiment, what is the
nature of the manipulation?

○ between-participants

◉ within-participants

○ mixed (at least one between and one
within factor)

What are the total number
conditions in your study?
(e.g., a 2 x 2 design has 4
total conditions):

1

Will the experimenters be aware of the condition to which a particular participant has been assigned?

◉ Yes, the experimenter will be aware of the condition to which a participant has been assigned

○ No, the experimenter will be blind to condition

Will participants be randomly assigned to condition?

○ Yes

◉ No (describe below)

If you selected 'No' for how you will assign participants to condition, please explain here:

Individuals will be randomly paired with individuals of the same gender

If you are predicting an interaction (in your hypotheses), describe the nature of that interaction below:

DATA ANALYSIS PLAN

What will be your criterion for determining statistical significance?

○ $p < .05$ ◉ $p < .01$ ○ $p < .005$

○ Other:

Will your tests of significance be:

○ One-tailed

◉ Two-tailed

○ A combination of one-
and two-tailed tests

If you indicated that some tests of significance will be one-tailed, describe the hypothesis and predicted direction of the effect or association below:

Will you exclude participants from data analysis based on any of the reasons listed below?

☐ Failed attention check   ☐ Failed manipulation check   ☐ Missing data

Describe any additional exclusion criteria here:

If a participant's scores on the assessment of their general attitudes towards new acquaintances at school is significantly lower (more negative in attitude) by three standard deviations than the mean, they will be excluded.

What criterion (if any) will you use to determine whether a participant is an outlier?

◉ Greater than 3 standard deviations from the mean

○ Other:

Which statistical tests will you use to conduct your data analyses? (check all that apply)

☐ ANOVA   ☑ Correlation   ☑ t-test   ☐ Chi-square

☐ Regression   ☐ Other/Additional

If you selected 'Other/Additional' for the statistical test above, describe the analyses you will conduct here:

Absolute change in scores will also be analysed

If relevant, describe what types of follow-up tests will you perform (e.g., Tukey post-hoc; simple main effects). If you will conduct planned comparisons, explain the nature of those comparisons below:

For the analyses listed above, will you include any covariates or control variables? If so, describe them below and provide a justification: