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Two Peas in a Pod? An Investigation of Friendship and Personality Perception

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Abstract

This study investigated whether we can tell people are friends by looking at them. Participants viewed

sets of four photos, two of which are real friends, and rated personality, appearance, and friendship

likelihood. I expected real friends to have higher friendship likelihood ratings and personality similarity. I

also expected to see self-other agreement in personality ratings completed by real friends. The results

indicated self-other agreement among ratings of personality by real friends, but there were not

significant patterns among the other variables.

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"She seems like she would be friends with Jane" or "You'll really like her." Many people have probably encountered or said a phrase similar to these. It seems as though people often use these kinds of phrases when estimating the compatibility of two people, indicating that there is some sort of element that people use to make compatibility judgments. It is likely that compatibility judgements are based on perceptions of people and implicit knowledge about what makes people compatible. Providing evidence for this idea, a study performed by Burgess and Wallin (1953) separated pictures of real life couples and had participants match the people they thought were a couple. Participants were able to do this with some accuracy. Personality judgments and impressions are vital to the working of society. They help us decide who we want to interact with and make decisions like who we trust and who we want to hire. Thus, it is necessary to understand as many facets of these judgments and impressions as possible. Because we use a variety of information to make judgments about people, and these judgments could affect compatibility ratings, it is important to investigate the relationship between different cues and these judgments.

Overall, it is quite evident that people can process and use personality information from a wide variety of sources to form impressions about people. Since we rely on personality information, it is important to understand how observations vary from trait to trait. When looking at personality judgments that have been made, it is clear that there are differences in likelihood of accuracy and consensus between traits. Accuracy means that assessments of personality made by other people match the self-report personality ratings of the person in question to some degree. Consensus, also known as agreement, indicates that judges agreed on their personality assessments of the target person. Agreement tends to be higher for some traits than others. Extraversion tends to have the highest levels of consensus, while neuroticism tends to have the lowest levels. Conscientiousness, agreeableness, and openness, tend to fall somewhere in the middle (Funder & Dobroth, 1987; Norman & Goldberg, 1966).

Differences seen in agreement and accuracy can be partially explained by differences in observability. Extraversion is the most observable trait of the Big Five, and openness is the least observable, with agreeableness, conscientiousness, and neuroticism falling in between (John & Robins, 1993).

The level of agreement and accuracy in personality judgments also hinges on the amount of information the observer has. Relationship closeness between two people can affect the accuracy of personality judgments. A study conducted by Funder and Colvin (1988) found that judgments made by informants (people that know the target person) were significantly more accurate than those made by strangers. This study also found that participants that had known each other for years produced more accurate personality judgments than those that were recently acquainted. The influence of having more information can also be seen in zero-acquaintance research. When participants were shown a video of a stranger with varying levels of length (5-10, 15-20, and 25-30 minutes) and asked to rate the strangers' personality, ratings were significantly more accurate at the 25-30-minute condition than the 5-10-minute condition. Consensus ratings for this study were high during the shortest condition and did not increase based on the length of observation (Blackman & Funder, 1998). If we can accurately detect some form of personality, and we rely on that information to form judgments, it is possible that we combine that information with this knowledge we have of what makes people compatible to form ideas about friendships.

Another piece of the puzzle as to why there is more consensus and accuracy for some traits than others is encompassed in Vazire's (2010) Self-Other Knowledge Asymmetry (SOKA) model. This model states that there are differences in accuracy when comparing self-judgments and other judgments of personality traits. Two dimensions that are frequently discussed surrounding the perception of personality traits are observability and evaluativeness. Observability refers to the ease with which a personality trait can be seen or detected. Evaluativeness is the level of social desirability (high or low) or neutrality of a trait (Funder, 2012). Vazire (2010) found that traits that are highly observable and have

little evaluativeness, such as extraversion, are easily judged by all people. Traits that are low in observability and evaluativeness, like neuroticism, are most accurate when people are reporting about themselves. Traits that are not easily observable but have high evaluativeness are best judged by reports from people that know the target well.

These compatibility judgements that are made, using personality information, could be based on a variety of factors, one of which is personality similarity. There has been an abundance of research looking at the relationship between personality similarity and relationship satisfaction. The general consensus is that there is some effect of personality similarity on relationship satisfaction (Weidmann et al., 2016). There is also an effect of perceived personality similarity on relationship satisfaction, meaning that people that think there are similarities between themselves and their partner are more likely to be satisfied in their relationship (Weidmann et al., 2016). If we know that similar people tend to be more satisfied with their relationships, it is plausible that we would pair people together (both couples and friends) based on personality similarity.

Compatibility judgements could also be made based on knowledge about which personality traits are beneficial to a relationship. Of the Big Five, neuroticism serves as the best predictor for relationship satisfaction, followed by agreeableness and conscientiousness (Weidmann et al., 2016; Roberts et al., 2007). Because there are personality patterns for what leads to relationship satisfaction, it is likely that we have an implicit knowledge about what makes people compatible. Because we have tendencies to be friends with people that are similar to us (Izard, 1960; Duck, 1975; Youyou et al., 2017; Lee et al., 2009), it is possible that this mechanism for estimating friendship compatibility is based on how similar the two people are.

When considering the role that personality similarity could play in compatibility judgments, it is important to recognize what cues people rely on to make personality judgments. When we observe or interact with people, there are a variety of cues that relay information about personality. These cues are

also known as observable attributes. A study conducted by Borkenau and Leibler (1995) found that there

are a wide variety of external, observable attributes that are related to personality traits. These

attributes, or cues, range from attractiveness to expressions and posture. In a study where participants

observed personality from photos, healthy (vs. sickly) appearance, and stylish (vs. unstylish) appearance

were positively correlated to ratings of extraversion. When looking at distinctive (vs. ordinary)

appearance, there was a negative relationship with ratings of conscientiousness and a positive

relationship with ratings of openness. Neat (vs. messy) appearance was positively related to extraversion

and negatively related to openness (Naumann et al., 2009). Perhaps people's ability to use physical

appearance information as cues to infer personality plays a role in thinking that two people seem like

they would be friends.

People gather information used to create impressions from a wide variety of places. Behavioral

residue and identity claims are two sources of information that can affect personality perceptions.

Behavioral residue refers to evidence of how people behaved in a certain environment. Studies

performed by Gosling et al. (2002) investigated the influence of behavioral residue in offices and

bedrooms on personality judgements. The first study employed a collection of observers to judge the

personality of 94 people by looking at their offices. The results of this study indicated that people can

predict levels of extraversion, conscientiousness and openness with high levels of consensus and

accuracy from behavioral residue.

For the second study, observers judged the personality of 83 college students by looking at their

bedrooms. This study had similar results, providing evidence for consensus among judgements of

extraversion, conscientiousness, and openness. However, when looking at bedrooms, observers judged

openness, emotional stability, and conscientiousness with the most accuracy. The results and foundation

of this study can be explained by looking at Brunswick's (1956) lens model. In this model, cues serve as a

lens by which observers can see personality traits. In Gosling et al. (2002), the participants used desks,

office decorations, and bedroom environments (lighting, colors, cleanliness) as cues by which they were able to accurately judge personality.

Identity claims are statements made by people within their environment either for their own benefit or to show others how they want to be seen (Gosling et al., 2002). An example of a self-directed identity claim might be placing a picture of your family or friends on your desk, facing you. Looking at this photo could remind you about an important piece of who you are. An example of an other-directed identity claim might be wearing a t-shirt that has "Ouachita Baptist University Psychology" written on it. Wearing this shirt tells whoever you encounter that you are a member of that department. It might also indicate that you are studious or that you take a lot of pride in belonging to that group. There have been a wide variety of studies indicating that people can use identity claims to judge personality (Carney et al., 2008; Naumann et al., 2009; Ivcevic & Ambady, 2012, Vazire & Gosling, 2004).

A study conducted by Cambell et al. (2022), investigated personality perception based on identity claims through the lens of undergraduates' laptop stickers. In this study, eight observers rated the personalities of 147 laptop owners. All these laptops had stickers on them. The highest levels of consensus were found for extraversion, openness, and conscientiousness. There were also moderate levels of consensus for agreeableness. Accurate judgements were made for openness and extraversion. Another study discussed the idea that shoes can serve as identity claims, potentially conveying levels of personality traits, like extraversion through the loudness or softness of the colors in the shoes, or social status through how expensive the shoes are. This study found that the shoes that people wear do, in fact, communicate personal characteristics (Gillath et al., 2012). The personality perceptions that are created by absorbing behavioral residue and identity claims are part of how we implicitly understand other people's personalities, which could influence friendship compatibility ratings.

People can also gather personality information from observing behavior on websites and online social networking sites. A study performed by Gosling et al. (2011) instructed observers to rate people's

personalities based on their Facebook profiles. Observers were able to detect extraversion and openness

from observable information available in Facebook profiles, such as number of friends and photos. Other

studies have also found accuracy in personality impressions formed from social networking sites (Back et

al., 2010; Evans et al., 2008; Stopfer et al., 2014)

We can even accurately guess someone's personality with as little as a photo. In a study

performed by Naumann et al. (2009), observers rated photographs of people on the Big Five personality

traits and several other characteristics including likeability, self-esteem, loneliness, religiosity, and

political liberalism. They rated these traits from a standardized photograph, where the participant was

told exactly how to pose, and a natural, spontaneous photograph, where the participant was able to

pose however they desired. They found that, when looking at the standardized photograph, observers

rated extraversion with the most accuracy. Observers also rated openness and emotional stability with

some accuracy, albeit less than extraversion. When looking at the spontaneous photographs, observers

were able to rate nine out of ten characteristics with accuracy (Naumann et al., 2009). Other studies

performed have confirmed that personality can be observed from photos (Kaurin et al., 2018; Qiu et al.,

2015)

Finally, there has been a vast amount of research conducted that has investigated personality

observations made about people who are relative strangers (Beer & Watson, 2008; Borkenau & Liebler,

1992; Carney et al., 2007; Kenney et al., 1992). This idea is commonly referred to as zero-acquaintance or

thin slice observations. These studies typically discuss the fact that people can make judgments quickly

based on very little information. One example of research investigating zero-acquaintance judgements is

a portion of a study conducted by Borkenau et al. (2004). This study discussed personality ratings made

by four independent observers who viewed a video tape of a behavioral sequence. These judges were

able to assess all five traits of the Big Five with high levels of consistency. Judgments that were made

were significantly associated with judgments made by knowledgeable others, indicating accuracy. In

another series of studies investigating zero-acquaintance personality judgements, participants, who did

not know each other, formed small groups, in person, and rated each other on the Big Five personality

traits: extraversion, agreeableness, conscientiousness, openness, and neuroticism (Albright et al., 1998).

They found that the participants were able to detect extraversion and conscientiousness during these

short interactions. Like behavioral residue and identity claims, information gathered from these other

sources, websites, photos, and short interactions, can be influential to our implicit knowledge of what

people are like, which, in turn, could influence who we think would pair well together.

Throughout the person perception literature, it is quite evident that there are trait-based

patterns in the development of personality impressions and that we can rely on several sources to gather

information. Physical appearance cues serve as a plentiful source of information, providing observable

details that convey personality traits. There is also implicit knowledge that people have about what

makes people compatible that could be based on personality similarity. It is possible that people use

personality information obtained through physical appearance cues to make judgments about whether

two people "seem like they would be friends."

The purpose of the present study is to investigate the relationship between personality

judgments, physical appearance cues, and estimations of friendship likelihood at the zero-acquaintance

level. Participants rated sets of photos, gathered by the researcher, on each of these variables. There

were three main hypotheses for this study. First, the participants would pair real friends together rather

than the other images (Burgess & Wallin, 1953). Second, real friends would have personality similarity (

Lee et al., 2009; Montoya et al., 2008; Youyou et al., 2017). Third, real friends would have high accuracy

in terms of personality judgments. When looking at pairs of people (couples, friendship dyads, etc.)

people tend to show high levels of self-other agreement in personality ratings (Colvin & Funder, 1991;

Funder & Dobroth, 1987; Kim et al., 2019; Watson et al., 2000). In one study performed by Watson et al.

(2000), the correlations for self-other agreement for friendship dyads were as follows: neuroticism - .37,

extraversion - .48, conscientiousness - .39, agreeableness - .34, and openness - .44. Correlations similar

to these are expected in this study.

Method

This study took place in two parts—the pre-study and the main study. The pre-study was

conducted to develop materials. The main study addressed the research questions.

Pre-Study Materials Development

Participants

For the pre-study portion of this study, 14 people (92.9% female) ranging in age from 18 - 21 (*M*

= 19.93 , *SD* = 1.00) submitted all questionnaires and photos and had a friend who completed the study,

resulting in 6 friend pairs. The other two photos were submitted without a photo pair, but included all

other data including close-friend ratings and were used to supplement the photos of real friend pairs in

the main portion of the study. These participants were recruited from Social Psychology Network, a

Facebook post, and by word of mouth. The criterion for these participants was that they had to have

little to no connection to the researcher's university. If they did attend the researcher's university, they

had to have graduated over two years ago. Among these participants 71.4.8% were Caucasian/White,

7.1% were African American/Black, 14.3% were Asian, and 7.1% were Bi-/Multi-racial. These participants

received personality and friendship feedback as compensation. The friendship feedback that was given

to participants included TIPI scores, Big Five personality descriptions, and information related to

self-other agreement within their TIPI scores and URCS scores.

Measures

The Ten Item Personality Inventory (TIPI; Gosling et al., 2003) is a ten-item measure, made up of

pairs of adjectives that can be used to describe a person's personality. Some examples of these adjective

pairs include "extraverted, enthusiastic," "dependable, self-disciplined," and "sympathetic, warm"

Participants rated how well the adjective pairs fit the person they were describing using a seven-point

Likert-type scale. This scale ranged from 1 (Disagree Strongly) to 7 (Agree Strongly). The TIPI contains

measures for each of the Big Five personality traits: extraversion, agreeableness, conscientiousness,

openness, and neuroticism.

The friendship information questions were a set of questions included to gather information

about the friend dyad. This section of the questionnaire asked the participant to give their friend's name

and email, so that the researchers were able to pair the friends together and send them reminders and

compensation. The third question in this set asked how long the pair had been friends in years.

The Unidimensional Relationship Closeness Scale (URCS; Dibble et al., 2011) is a twelve-item

measure designed to measure the closeness of two people in a variety of relationships including

romantic partners, friends, and family members. For this study, the URCS was used to measure the

closeness of two friends. Participants were asked to rate phrases such as "When we are apart, I miss my

friend a great deal," "My friend and I disclose important personal things to each other," and "My

relationship with my friend is important in my life," about their relationship with their friend that

participated with them. They rated these statements on a seven-point Likert-type scale, ranging from 1

(Disagree Strongly) to 7 (Agree Strongly).

Procedure

The pre-study materials development involved asking pairs of friends that do not currently

attend Ouachita Baptist University to submit photos of themselves and fill out a short survey using

Google Forms. The beginning of the survey included an informed consent waiver, which asked for the

participants consent to participate in this portion of the study, have their photo used in the second

portion of the study, and have friendship information sent to them as compensation. The rest of the

survey included some basic demographic information, the TIPI for each person to fill out about

themselves and about their friend, friendship information questions, the URCS, and a request for

participants to submit photos of themselves to the researcher via email. When being asked to submit

photos, participants were given photo submission instructions. These instructions asked participants to

email their photos to the email that was created for this study. Participants were told to submit a photo

of themselves that was taken from the waist up, facing the camera, in front of a solid background.

Beyond these requests, they were allowed to pose however they wanted. They were also asked not to

crop or edit the photo.

Main Study

Participants

Participants for the main study were 82 undergraduate students (80.5% female), ranging in age

from 18 to 24 (*M* = 20.10, *SD* = 1.23), that were recruited from the researcher's university by word of

mouth in psychology and sociology classes, and in women's social clubs. Among these participants,

92.7% were Caucasian/White, 3.7% were African American/Black, 1.2% were Asian, 1.2% were Latino/a,

and 1.2% were Bi-/Multi-racial. The participants that were enrolled in psychology courses received extra

credit or course credit as compensation. The participants that were members of the women's social club

received support credit as compensation.

Materials

The only materials used in this study were the photos that were collected in pre-study materials

development and placed in the survey for the second portion of this study. There were 14 total photos

that were used. Each of the people in these photos consented for their photos to be used in the main

study. When being asked to submit photos, participants were given photo submission instructions. These

instructions asked participants to email their photos to the email that was created for this study.

Participants were told to submit a photo of themselves that was taken from the waist up, facing the

camera, in front of a solid background. Beyond these requests, they were allowed to pose however they

wanted. They were also asked not to crop or edit the photo.

Measures

The Ten Item Personality Inventory (TIPI; Gosling et al., 2003) was used again. Participants were asked to fill out a TIPI about themselves and about people depicted in several photos. In order to clarify who the participants were referring to in their responses, the TIPI adjective pairs were preceded by phrases such as "I see myself as" and "The person in the image above is."

The Physical Cues Questionnaire (PCQ) is an eight-item measure that was designed for the current study. The statements included were based on physical cues used in a study conducted by Naumann et al. (2009). This questionnaire consists of eight statements about the appearance of the person in the photos that the participants were shown. Examples of these statements include "The person in the image above has a stylish appearance," "The person in the image above has a neat appearance," and "The person in the image above has a distinctive appearance." Participants were asked to rate the eight statements using a seven-point likert-type scale, ranging from 1 (Disagree Strongly) to 7 (Agree Strongly).

The final measure used in this study was a question where participants were asked to rate the likelihood that two people, depicted in photos, are friends. This question will be referred to as the Friendship Likelihood Rating (FLR). Participants rated friendship likelihood on a seven-point Likert-type scale, ranging from 1 (Disagree Strongly) to 7 (Agree Strongly).

Procedure

Once the pre-study materials were collected, a survey was created to give to students at the researcher's university. This survey began by having participants give consent to participate, fill out basic demographic information, and a TIPI about themselves. Then, the participants were shown three sets of photos that were randomly selected from a total of 6 photo sets. Each set included images of a target person and 3 other people, one of which is real friends with the target person. Under each photo that was shown, participants were asked if they knew the person in the photo to ensure validity. The participants were first shown the photo of the target person and asked to fill out a TIPI and PCQ for that

person. Then, participants were then shown photos of another person and filled out the TIPI and PCQ for

that person. After participants finished rating the personality and physical appearance of other person

one, they were then shown the target photo paired with the person they had just finished rating. They

were asked to rate how likely that person is to be friends with the target person. Participants followed

this pattern—TIPI, PCQ, and FLR—for the other two photos in the photo set. At the top of each set of

questions (TIPI and PCQ), participants were shown the photo of the person they were rating to reduce

scrolling. The procedure was exactly the same for each of the photos following the target photo. The

photos in each set were of people that were the same gender to ensure that friendship likelihood

estimations were not made based on gender alone.

<div align="center">**Results**</div>

Self-Other Agreement

The relationships between self-report personality scores and scores reported by a close friend

were analyzed using Pearson's correlation coefficient to assess for self-other agreement (See Table 1 for

full correlation matrix). The data for these analyses came from the pre-study. When looking at

extraversion, there was not a significant correlation between self-report and close friend ratings, $r = .29$,

$p > .05$. There was a large, positive correlation between self-report and close friend ratings of

agreeableness, $r = .69$, $p < .01$, indicating a relatively high rate of self-other agreement. When looking at

conscientiousness, there was not a significant correlation between self-report and close friend ratings, r

$= .45$, $p > .05$. When looking at openness, there was a large, positive correlation between self-report and

close friend ratings, $r = .71$, $p < .01$, indicating high self-other agreement. There was also a moderate,

positive correlation between self-report and close friend ratings of neuroticism, $r = .57$, $p < .05$,

indicating a relatively high rate of self-other agreement.

Personality Similarity in Real Friends

A Pearson's correlation coefficient was run to analyze the relationships between self-reported

personality scores from two members of a friendship dyad (see Table 2 for full correlation matrix). The

data for these analyses came from the pre-study. When looking at extraversion, there was not a

significant correlation between friends' self-reported personality scores, r = -.16, p > .05. There was not a

significant correlation between friends' self-reported personality scores for agreeableness, r = .50, p >

.05. When looking at conscientiousness, there was not a significant correlation between friends'

self-reported personality scores, r = -.12, p > .05. There was not a significant correlation between friends'

self-reported personality scores for openness, r = .06, p > .05. There was also not a significant correlation

between friends' self-reported personality scores for neuroticism, r = .17, p > .05.

Friendship Likelihood Ratings

A paired samples t-test was conducted to compare friendship likelihood ratings for friend pairs

and pairs of people that are not friends. The data for this analysis came from the main study. To compare

ratings, the friendship likelihood scores were aggregated across sets into two groups: friends and not

friends. The scores were aggregated by averaging the scores of the friends or not friends from each set

of photos into two groups. There was no significant difference in friendship likelihood ratings for friend

pairs (M = 4.19, SD = 0.97) and pairs that are not friends (M = 4.29, SD = 0.74), t(82) = -.82, p = .42.

Perceived Personality Correlations

In the original plan for this study, the researcher was planning on using a hierarchical multiple

regression to test the predictive power of physical cues on friendship likelihood ratings. These analyses

did not make sense following the results of correlational analyses, thus only correlational analyses were

used for this portion of the study. Pearson's correlation coefficients were run by photo set to assess the

relationship between the perceived personality of the person in the target image and the people in the

other photos provided. The data for these analyses came from the main study. When looking at photo

set one, there was not much of an observable pattern in correlations (see Table 3 for correlation matrix).

There were significant correlations for perceived agreeableness ($r = .53$, $p < .01$), conscientiousness ($r = .37$, $p < .05$), neuroticism ($r = .38$, $p < .05$), and openness ($r = .58$, $p < .01$) for the perceived personalities of the real friends. For the first couple of photos of people that were not real friends, there were significant correlations for agreeableness ($r = .30$, $p < .05$), conscientiousness ($r = .40$, $p < .01$), and openness ($r = .53$, $p < .01$). For the second couple of photos of people that were not real friends, there was a significant correlation for openness ($r = .41$, $p < .01$).

For photo set two, there was a difference in the presence of significant correlations between friends and non-friends, but this lack of significant correlations does not point to anything causal (see Table 4 for correlation matrix). For real friends, there were significant correlations for agreeableness ($r = .44$, $p < .01$), conscientiousness ($r = .46$, $p < .01$), and neuroticism ($r = .39$, $p < .05$). There were significant correlations for agreeableness ($r = .51$, $p < .01$) and openness ($r = .42$, $p < .01$) for the relationship between the person in the target photo and the first non-friend. There were no significant correlations between perceived personality in the target person and the second non-friend.

For photo set three, there were similar numbers of significant correlations among the real friend pair and the non-friend pairs (see Table 5 for correlation matrix). When looking at the real friends, there was a significant correlation for agreeableness ($r = .31$, $p < .05$) and conscientiousness ($r = .38$, $p < .05$). For the target and the first non-friend there was a significant correlation for conscientiousness ($r = .52$, $p < .01$) and openness ($r = .33$, $p < .05$). For the target and the second non-friend there was a significant correlation for agreeableness ($r = .47$, $p < .01$) and neuroticism ($r = .37$, $p < .05$).

Similar to photo set 2, there was a difference in the presence of correlations between the real friends and non-friends for photo set 4, but this cannot speak to any sort of causal difference (see Table 6 for correlation matrix). For the real friends, there were significant correlations for agreeableness ($r = .36$, $p < .05$), neuroticism ($r = .53$, $p < .01$), and openness ($r = .33$, $p < .05$). For the first pair of non-friends, there were no significant correlations. For the second pair of non-friends, there were

significant correlations for agreeableness (*r* = .43, *p* < .01) and neuroticism (*r* = .49, *p* < .01). For photo set

5, there were no significant correlations.

Finally, for photo set 6, there was no real observable pattern in the correlations. When looking at

the real friends, there was a significant correlation for conscientiousness (*r* = .54, *p* < .01). For the first

pair of non-friends, there were significant correlations for extraversion (*r* = .45, *p* < .01), agreeableness (*r*

= .62, *p* < .01), and openness (*r* = .39, *p* < .05). For the second pair of non-friends, there was a significant

correlation for conscientiousness (*r* = .47, *p* < .01).

Discussion

The hypotheses for the present study were that participants would pair real friends together,

rather than non-friends, and that there would be personality similarity and self-other agreement

between real friends. When looking at self-other agreement, my hypothesis was partially confirmed.

There were significant self-other agreement correlations for agreeableness, openness, and emotional

stability. These correlations indicate that there was a strong, positive relationship between participants'

self-reported ratings of personality and ratings that were completed by a close friend for these traits.

Watson defines substantial self-other agreement as correlations that are higher than .40 (Watson et al.,

2000). By this standard, all the significant self-other agreement correlations found in this study are

substantial.

Interestingly, these correlations were higher than expected based on self-other agreement

literature. The expectation was that the correlations for agreeableness, openness, and emotional

stability would fall somewhere around .34, .44, and .37, respectively (Watson et al., 2000). The

correlational analyses in this study yielded correlations of .69, .71, and .57. Based on the self-other

agreement and trait observability literature, there should have been a significant self-other agreement

correlation for extraversion because it is the most observable trait of the Big Five (Funder & Dobroth,

1987; John & Robbins, 1993; Norman & Goldberg, 1966; Vazire, 2010). The lack of significance for the

extraversion correlation is perplexing due to the vast amount of literature that indicates people's ability to judge extraversion accurately. This finding needs to be investigated further with a study that has corrected for the limitations of the present study.

I hypothesized that real friends would have similar personalities and the results of this study did not confirm this hypothesis. The lack of significant similarity results could also be due to a small sample size, seeing as the sample used for these analyses came from the pre-study data, which included 14 participants. It is also possible that there is a difference between the role that personality similarity plays in romantic relationships and friendships. Generally, in romantic relationships, the evidence that similarity fosters relationships is more substantial than the evidence for complementarity. Personality similarity plays a part in the overall similarity between two people (Gilovich et al., 2013). This might not be the case in friendships. A study performed by Watson et al. (2000) investigated personality in friend dyads, dating couples, and married couples. When looking at personality similarity for friends, there were no significant correlations. The literature that was used to make the prediction that real friends would show personality similarity was attraction literature that did not cover similarity in friendships, which potentially explains why my hypothesis was not confirmed.

The results for the friendship likelihood ratings did not confirm my hypothesis. There was no significant difference in likelihood ratings between real friends and non-friends. One potential explanation for this result is that there was not enough information relayed through the photographs to make accurate friendship judgments. The more information observers have about the behaviors of people, the more accurate their personality judgments are (Borkenau et al., 2004; Letzring & Human, 2014). It is probable that there would have been more accurate judgments about friendship likelihood if observers had more information, like several photos or a video.

It is also possible that there was not a significant difference between real friends and non-friends because all the people involved in the pre-study were too similar. Because there was only one researcher

working on this project and there were limited resources and certain criteria for participation, it was

extremely difficult to recruit participants. The study was posted to Social Psychology Network in an

attempt to recruit people that the researcher did not know for the study, however most people that

participated this way did not follow directions and did not send a photo, which meant they were not able

to participate. The lack of participants meant that the researcher had to recruit people that she knew,

which led to the possibility that there were not substantial differences between the real friends and

non-friends that people were viewing in the photo sets. The lack of pattern in personality perception

correlations speaks to this reasoning as well.

Limitations

There were several limitations in this study that could have affected the results and would need

to be addressed if this study was reimagined. The first limitation, as mentioned above, was recruitment

troubles. The participants involved in the pre-study were not a representative sample in that they were

not diverse enough in race or gender. There were also not enough people involved. To have accurate

results that are generalizable, this study would need to be conducted with a larger, more diverse sample.

Another limitation of this study is that the study design was not able to answer the question at

hand. The design of this study did provide an abundance of data. However, this data was not able to be

analyzed in a manner that yielded an answer to the question: "Are we able to tell that people are friends

just by looking at them?" In an ideal world, a mediation analysis would have been conducted to build a

model to look at the relationships between all the variables (personality traits, physical cues, friendship

likelihood), but that sort of analysis was outside the scope and resources of this project.

Future Directions

Because of the gap in research that exists surrounding this question, it is important that another

study is conducted investigating our abilities to make compatibility judgments about friendships. If

another study were to be conducted, it would have to be redesigned because very few causal claims

could be made with the current study design. The best way to conduct this study again would be to break it into separate studies with a different sample of people for each study.

The first study that would need to be conducted would be a study investigating whether people can accurately judge personality from photos. In this kind of study, people would be shown photos and asked to fill out a personality measure about the people depicted in the photos. Based on the person perception literature, people can do this with some accuracy, so there should be significant results for this study. The second study would need to be a study asking whether people can use physical cues to predict personality. The third study would look at people's ability to match real friends together from a set of people. People should also be able to do this with some accuracy (Burgess & Wallin, 1953). This study could have a qualitative component that would have the participants that matched people correctly tell the researcher what information they based their answer on. These responses would most likely need to be coded as physical cues or personality.

Conclusion

This study attempted to investigate the relationship between friendship and personality perception. While this attempt did not quite answer the question at hand, there are some important ideas to recognize. This study serves as a piece to add to the self-other agreement studies, confirming the idea that we can perceive other people's personalities accurately, especially if we have a lot of information. This study did not show consensus among personality judgments from photos, when previous literature suggests that it should, and there were not significant differences between friendship likelihood judgments of real friends and non-friends, although there is a strong theoretical background indicating there should be a difference. This indicates that further research should be done. Because there are few studies that have directly investigated how we make friendship compatibility judgments, it is important that this study is attempted again with different methodology.

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Table 1

Self-other agreement correlations for targets and close friends

		Target - Self Ratings				
		E	A	C	O	N
Close Friend	E	.29	-.12	.09	.12	-.23
	A	.38	.69**	.02	.35	.82**
	C	-.38	.40	.45	.12	.38
	O	.35	.41	.20	.71**	.37
	N	-.05	.36	.14	.08	.57*

Note. * = significant at the 0.05 level, ** = significant at the 0.01 level

Table 2

Correlations for personality similarity between real friends

		Target				
		E	A	C	O	N
Close Friend	E	-.16	.26	.27	.49	-.41
	A	.25	.50	.39	.32	-.09
	C	.30	.05	-.12	-.04	-.04
	O	.53	.20	.21	.06	-.45
	N	-.58	.52	.39	.73	.17

Table 3

Correlations of perceived personality from photo pairs in set 1

		Target				
		E	A	C	N	O
Real Friend	E	.15	.06	-.14	-.16	.28
	A	.06	.53**	.37*	.52**	.34*
	C	-.14	.31*	.37*	.38*	.26
	N	-.16	.35*	.23	.38*	.26
	O	.28	.22	.43**	.27	.58**
Other 1	E	.10	-.13	-.09	-.07	-.10
	A	.21	.30*	.43**	.23	.44**
	C	.11	.34*	.40**	.19	.37*
	N	-.08	.28	.01	.25	.20
	O	.29	.36*	.39**	.11	.53**
Other 2	E	.18	-.03	-.08	-.23	.09
	A	.40**	-.06	.26	.17	.10
	C	.26	-.04	.22	-.01	.47**
	N	.07	-.01	-.01	-.08	.09
	O	.10	.22	.18	.02	.41**

Note. * = significant at the 0.05 level, ** = significant at the 0.01 level

Table 4

Correlations of perceived personality from photo pairs in set 2

		Target				
		E	A	C	N	O
Real Friend	E	.14	.04	.37*	.10	.1
	A	-.22	.44**	.56**	.34	.05
	C	-.15	.27	.46**	.26	.29
	N	-.01	.17	.48**	.39*	.19
	O	-.05	.14	.49**	.16	.30
Other 1	E	-.12	.37*	.24	.14	.16
	A	-.11	.51**	.36*	.42**	.41**
	C	.15	.12	.27	.01	.25
	N	.21	.06	.34*	.13	.18
	O	-.09	.25	.40**	.27	.42**
Other 3	E	-.02	-.23	.12	-.11	-.03
	A	-.05	-.03	.17	.13	.15
	C	.14	.19	.23	.28	.21
	N	.20	.27	.46**	.22	.24
	O	-.10	-.26	.17	.13	-.05

Note. * = significant at the 0.05 level, ** = significant at the 0.01 level

Table 5

Correlations of perceived personality from photo pairs in set 3

		Target				
		E	A	C	N	O
Real Friend (Other 1)	E	-.04	.13	.19	.05	-.05
	A	.27	.31*	.12	.14	.41**
	C	.06	.14	.38*	.18	.24
	N	.13	.17	.37*	.23	.25
	O	<.01	.21	.11	-.02	.15
Other 2	E	.12	-.09	-.07	-.13	.09
	A	-.20	.07	.15	.16	.06
	C	-.13	.40**	.52**	.44**	.38*
	N	-.12	.26	.34*	.27	.24
	O	-.05	.21	.29	.11	.33*
Other 3	E	-.27	.15	-.01	.22	.07
	A	-.02	.47**	.33*	.22	.22
	C	-.07	.02	.21	.04	.02
	N	.03	.26	.16	.37*	.39*
	O	-.25	.05	.32*	.02	.18

Note. * = significant at the 0.05 level, ** = significant at the 0.01 level

Table 6

Correlations of perceived personality from photo pairs in set 4

		Target				
		E	A	C	N	O
Real Friend	E	-.07	.01	-.13	.05	.13
	A	.28	.36*	.10	.26	.40*
	C	.34*	.20	.17	.04	.13
	N	.13	.18	-.12	.53**	.43**
	O	-.16	.25	.01	.16	.33*
Other 1	E	-.29	-.16	-.03	-.19	-.08
	A	.16	.10	.14	.35*	.36*
	C	-.01	-.12	.22	.13	.34*
	N	.13	.06	.12	.24	.24
	O	.37*	.09	.12	.28	.20
Other 3	E	.11	-.12	-.26	-.01	-.08
	A	.18	.43**	-.02	.52**	.36*
	C	.34*	.37	.03	.24	.60**
	N	.21	.28	-.05	.49**	.06
	O	.25	.10	-.27	.11	.18

Note. * = significant at the 0.05 level, ** = significant at the 0.01 level

Table 7

Correlations of perceived personality from photo pairs in set 5

		Target				
		E	A	C	N	O
Real Friend	E	.04	.14	-.06	.02	.14
	A	.04	-.03	.09	.11	.26
	C	-.19	.21	.02	<.01	-.06
	N	-.19	-.03	-.09	.08	-.14
	O	-.16	.15	-.13	-.23	.16
Other 1	E	.03	.07	.15	-.42**	-.05
	A	.12	.26	.23	.58**	.01
	C	-.20	.22	-.08	<-.01	-.20
	N	-.15	.12	-.01	.04	-.11
	O	-.04	.36*	.03	.10	-.09
Other 2	E	.01	-.20	-.03	-.12	-.06
	A	.25	.08	.33*	.07	.34*
	C	-.01	.14	-.01	.28	.05
	N	.39*	-.37*	-.09	.09	.02
	O	.13	.05	-.15	-.13	-.12

Note. * = significant at the 0.05 level, ** = significant at the 0.01 level

Table 8

Correlations of perceived personality from photo pairs in set 6

		Target				
		E	A	C	N	O
Real Friend	E	-.12	.33*	.29	.25	.48**
	A	.25	.30	.39*	.19	.15
	C	.22	.16	.54**	.17	.21
	N	.30	.03	.17	-.12	.30
	O	.11	.01	.31	.03	.26
Other 2	E	.45**	-.09	-.13	.18	.07
	A	-.05	.62**	.29	.26	.15
	C	-.09	.32	.09	-.01	.13
	N	.19	.19	-.08	.32	-.25
	O	.11	.12	-.02	-.09	.39*
Other 3	E	.21	.04	.22	.14	-.02
	A	.22	.08	.04	.24	.07
	C	.39*	.23	.47**	.34*	.07
	N	.21	.14	.02	.20	.20
	O	.07	.10	.23	.06	.01

Notes. * = significant at the 0.05 level, ** = significant at the 0.01 level