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Preference for Personal, Non-Erotic Touch and its

Relationship to Personality Characteristics

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Abstract

The researchers were interested in the preference for touch and how it relates to other personality characteristics because of the previous research about how touch can convey emotions and feelings. Researchers conducted a pilot study to obtain scenarios that might be beneficial to use in creating a preference for touch scale. They developed the scale and posted the scale online as well as a link to a personality test as well as a test to score the level of empathy a person had. Then the researchers ran a correlation analysis and a regression analysis to test for significance. The results showed that there is a correlation between preference for touch and empathy as well as agreeableness, as well as others.

The sensation of touch is one of the most important, yet oftentimes one of the most overlooked, senses we use. Most organisms use their tactile sensitivity as a warning system that triggers a response to fight, flee or other immediate reaction. (Montagu, 1971; Heller, 1991). Although most organisms have a sense of touch, humans have a relatively unusual ability to charge their physical contact with meaning (Hertenstein, Keltner, & App, 2006). Whereas many organisms use their sense of touch for survivability, humans have moved beyond using touch for survival reasons. In addition to this, the modern human uses their ability to contact others for a myriad of other purposes, such as showing closeness, getting another's attention, expressing interest in another, etc. This allows humans to express themselves in ways that no other organism can.

The classic example of the effect of physical touch on mammals is the Harlow study performed in the late 1950s (Harlow, 1958). Harlow created an experimental situation where a young rhesus monkey was exposed to a wire surrogate mother that provided food and a soft, cloth mother who provided no food. The infant monkey consistently stayed with the cloth monkey due to the pleasant tactile stimulation it provided. Just like the monkeys, humans have the need for physical contact with others in order to further their development (Horton, Clance, Sterk-Elifson, & Emshoff, 1995).

Studies over the effects of interpersonal touch have shed some light on the importance of physical contact in humans with others. One study demonstrated experimentally that participants in a condition that used physical touch experienced more favorable affective, behavioral, and physiological reactions than those in a group that did not experience touch (Whitcher & Fisher, 1979). In her book, Ashley Montagu states that tactile experience plays a fundamentally

important role in the growth and development of all mammals. For example, animals that do not experience touch tend to exhibit signs of neglect such as being emotionally disconnected and experiencing great discomfort when being around others (Montagu, 1971). Her research was concentrated specifically on animals and stated that tactile experience is essential for the normal growth and development of their offspring. Much can be learned by studying the animal kingdom in that it gives new insight into how humans act and what might affect their behavior. Studying the behavior of animals allows humans to learn, or develop more theories, about themselves.

Although all people have a need for physical contact with others, some people have a greater desire for it whereas others may be hesitant about it. This study is based on the idea that there are underlying personality differences between people who are fond of contact with others and those who are less fond of contact with others. Even so, it can be understood that personal contact with others is a vital part of the human experience (Montagu, 1971). Also, research has shown that there is a link between physical stimulation and personality characteristics. One study discussed the idea that, in humans, the mother creates a sense of empathy in an infant through physical contact and stimulation (Toronto, 2001). From this study, it is apparent that touch is an essential part of being human and perhaps it could even help predict or be correlated with the way one relates to another person, physically or emotionally.

Empathy is a trait that is generally defined as a sense of shared experience, either physical or emotional, with another. This trait is expressed strongly in some people and weakly in others. Although empathy is often viewed as a trait that expresses sensitivity and weakness, it has been found that higher levels of empathy are attributed to a higher level of life satisfaction (Sousa & Lyubomirsky, 2001). In our society it is generally held that empathy is shown more in

females than in males (Eagly & Crowley, 1986). There is little research that either supports or nullifies this statement, but this belief is still common among the populace.

It is likely that there is in fact a link between one's level of empathy and their desire for physical contact with another. This means that there is a possible correlation between physical contact at an early age and a higher level of empathy. Therefore, it can be believed that a higher level of empathy as an adult would correlate to a higher level of satisfaction from non-erotic touch. This study will test this and offer explanations as to why people who like to be touched in a non-erotic way may naturally be more empathic. This is attributed to the idea that they may have a higher desire for closeness with others than those who are less empathic.

There has been little research done on the amount of empathy an adult has and how they experience physical contact with others. One study mentioned that the scarcity of empathy studies and inappropriate empathy instruments have contributed to a lack of information and understanding concerning empathic responding in older adults (May & Alligood, 2000). This study is based on the assumption that empathic people are more likely to experience physical contact with others due to their heightened desire for closeness. Given that empathic people are more likely to touch than be touched; the study has been set up so that the results will show information about the empathy level of the participant as compared to their desire for physical touch with others. In the end, we expect to find a positive correlation between a person's propensity to physical touch and empathy.

Aside from empathy, there are other characteristics that might correlate with a person's preference for touch. Some of the characteristics that the researchers hypothesize to relate to the preference for touch are being outgoing and sociable. These characteristics can be summed up into what was developed and then coined as the big five personality inventory by Costa and

McCrae (1996). These characteristics are said to be those that every human possesses and a person scores either high or low on the five following personality traits: openness, conscientiousness, extraversion, agreeableness, and neuroticism. Openness refers to having traits such as imagination and insight, and those high in this trait also tend to have a broad range of interests. Conscientiousness has features that include high levels of thoughtfulness, with good impulse control and goal-directed behaviors. Those high in conscientiousness tend to be organized and mindful in details. Extroversion includes characteristics such as excitability, sociability, talkativeness, assertiveness, and high amounts of emotional expressiveness. Agreeableness includes attributes such as trust, altruism, kindness, affection, and other pro-social behaviors. Neuroticism is defined as those that tend to experience emotional instability, anxiety, moodiness, irritability, and sadness (Van Wagner, 2008). Because these traits are said to be the ones that best describe all that encompasses human personality, it is reasonable to see if some of these would relate to touch therefore establishing another link between preference for touch and personality. The researchers think that openness, extraversion, and agreeableness will positively correlate with one's preference for touch. The researchers also believe that neuroticism will negatively correlate and there will be no significant correlation between preference for touch and conscientiousness.

For the purposes of this study, touch will be defined as the variety of sensations evoked by stimulation of the skin between two people that is non-erotic in nature (Cholewiak & Collins, 1991). Erotic touch has been excluded from this study because the focus is on inter-personal touch that occurs in an everyday situation. This maximizes the results that can be obtained and allows the study to apply to a larger population. Physical contact with participants is generally considered to be a suspect practice in psychological research (Holub & Lee, 1990), so this study

is designed to be as ethically responsible as possible. This study is intended to find out if preference for touch is correlated with the personality attributes of empathy and those characteristic of the Big Five Personality Inventory. The researchers hypothesize that preference for touch will be positively correlated with empathy, openness, extraversion, and agreeableness and negatively correlated with neuroticism.

Method

Pilot Study

Participants. Participants were obtained from the sorority and fraternity houses of the authors in a small, Midwestern College campus. A focus group was conducted in order to get ideas of what people would consider non-erotic touch so as not to pick scenarios out of the realm of everyday experience. There were 8 participants in the focus group, 4 male and 4 female. No participants had to be dropped. All participants were Caucasian and between 19 and 21.

Materials. This study was conducted online. The demographic section of the online study asks for the participant to record their age, gender, and education. The questionnaire went on to ask questions about the participant's experience with non-erotic physical touch when they were young. Participants were asked to answer whether the statements about their involvement with touch as a child were true or false. The participants were then asked to rate their comfort level with 50 situations on a 1-7 Likert scale. These situations were written by experimenters and shown to document someone's preference for touch by means of the experimental process. The scenarios included different places, such as in public or in private. They also included different situations a person could be in when they are exposed to personal touch such as on an athletic field or during a time of intense emotion. This scale was tested for reliability and was given a α of .92. Participants were finally asked to fill out a scale that measures empathy and one

that measures other personality characteristics. They were asked to indicate on a scale how much they agreed or disagreed with the statement or how much a characteristic would describe them respectively. The other materials used were the Big Five Personality Scale (“Big Five”) and the Multi-Dimensional Emotional Empathy Scale (Caruso & Mayer, 1998).

A modified test, said to have been able to report one’s score for The Big Five Personality Scale, used was obtained from the internet and consists of ten descriptive phrases (“Big Five”). Underneath these phrases was a place where the participant was supposed to indicate whether they strongly agree or strongly disagree that the statement is characteristic of the participant. This particular scale, picked to measure the Big Five Personality traits, was used because of its length. There are many Big Five Personality tests out there, but this one was composed of ten questions. A longer scale could possibly be more reliable and accurate but the length of the questionnaire demanded that we use a smaller scale in order to not take up too much of our participant’s time. Also, by keeping the questionnaire short it was hoped that more people would get involved and actually take the survey.

The Multi-Dimensional Emotional Scale (Caruso & Mayer, 1998) was obtained from a study that was performed in the late 1990s. The scale is made up of thirty questions and was designed to measure the amount of empathy the participant has. Participants were instructed to indicate how true a statement is to them on a one to five Likert scale, one being strongly disagree and five being strongly agree. Researchers decided upon using this scale because the internal consistency reliability was high with $\alpha = .86$ and because it fit the length requirements decided upon by the researchers.

Main Study

Participants. Participants were obtained for the study by sending a link to all living units on a small, Midwestern College campus and by placing a link on *Psychological Research on the Net* (Krantz, 2007) website. Putting the questionnaire on website was for the purpose of attracting participants from a diverse geographical location to this study and thus providing better results and a higher reliability. Students that were recruited on the campus were obtained by informing the introductory psychology professors of the researchers' need for participants. Some of the participants may have received extra credit for their participation awarded by their professor.

Initially 144 participants were collected; however researchers found it necessary to drop 15 participants due to incomplete questionnaires and being under the age of 18. Participants ranged in age from 18 to 60. Of the participants, 76% were female and 85% listed themselves as Caucasian.

Procedure. Participants were informed that the researchers were conducting a study on the preference for person non-erotic touch and then asked if they were willing to participate with the knowledge that the information might be used as part of a study. All agreed and signed an informed consent. Then the participants were asked what situations do they personally feel comfortable being touched, and the researchers' definition of touch was then defined. The participants gave their responses as the researchers recorded them using a tape recorder. Then the participants were asked what situations they would feel uncomfortable being touched. The conversation went on from there and the participants gave circumstances where they would or would not feel comfortable. They were asked about the gender of the person, the scenario, the context, and if there was anything else they felt they needed to say that would be helpful. After this, the participants were debriefed.

During the pilot study, it was brought to the attention of the researchers that there may be a difference in the direction of the touch (i.e. whether one touches or is being touched). The researchers decided to redo the scale so that the scenarios where there might be a difference in how comfortable one is in the situation given the fact that they are touching or are being touched were asked in both ways (i.e. both "Hugging someone after a death" and "Having someone hug you after a death" were used). It is important to note that the researchers decided upon whether the scenarios needed to be written in both being the recipient of the touch or the one touching or not. For example, the researchers decided that "Sharing an armrest at the movies with a stranger" implied that the touching is mutually exclusive and therefore did not need to be written as "touching someone's arm on an armrest" or "having someone's arm on an armrest touch you." It was later shown that there was no statistical significance in whether one was the recipient of the touch or the giver of the touch; therefore any concerns about this issue were discarded.

Main Study

Materials. The same demographics, big five personality inventory scale, and empathy scale were used. Instead of the 50 original scenarios, participants were presented with the final 10 scenarios. The rest of the materials match those of the pilot study.

Procedure. The development of the preference for personal non-erotic touch scale was created by the researchers through a series of focus groups with male and female acquaintances of the researchers and later through a pilot study. The ten scenarios created for the touch preference scale were narrowed down from a list of fifty by doing a pilot study and by recoding the definition of non-erotic touch by the researchers.

In the beginning, the researchers wanted to discuss touch as any touch that was not intended to initiate any type of sexual feelings. This is why they started to define touch as non-

erotic. However, upon further investigation, the researchers noted that stating the sex of the people in the scenarios might have made it more likely to have people focus on sexual feelings rather than touch itself. So the researchers narrowed down their definition and their scale to include only those scenarios that did not illicit sexual feelings by making the scenarios gender neutral.

Online, the participants were to read and electronically sign the informed consent page, fill out the demographics section, and then were to proceed to the actual questionnaire. The final questionnaire was composed of the following: a ten question Preference for Touch scale that was developed by the researchers, a thirty question Multi-Dimensional Emotional Empathy Scale, and a ten question Big Five Personality Inventory. The entire process of filling out the questionnaire and demographics took approximately fifteen minutes. After the test was completed the participants were taken to a webpage that contained a debriefing form. After reading this they were finished with the study. Analysis of the tests was done to see if there was a correlation between a preference for personal touch, empathy, and other attributes characteristic of the Big 5 Personality Inventory. This study ran for approximately three weeks until enough data had been collected to run statistics for analysis.

Results

In order to test the hypothesis that preference for touch will be correlated with personality attributes of empathy and those characteristic of the Big Five Personality Inventory (Costa & McCrae, 1996), the researchers ran bivariate correlations of all of the variables. The researchers found many factors that correlated to touch. There was a significant positive correlation between touch and agreeableness, $r(128) = 0.381, p < .01$. This correlation indicates that people with a preference for personal, non-erotic touch also tend to rate higher on an agreeableness scale. There was also a significant positive correlation between empathy and touch, $r(128) = 0.303, p < .01$. This correlation suggests that

people who have a higher preference for touch also tend to score highly on the empathy scale. Openness also is weakly positively correlated with touch, $r(128) = 0.186, p < .05$. This correlation suggests that those that score highly on the touch scale also tended to score highly in regards to openness.

In order to see if any further correlations were present, the researchers ran correlations among all of the variables. Agreeableness and empathy were positively correlated, $r(128) = 0.436, p < .01$. Conscientiousness and openness had a positive correlation, $r(128) = 0.446, p < .01$. Conscientiousness and agreeableness were positively correlated, $r(128) = 0.214, p < .05$. Extraversion was positively correlated with conscientiousness, $r(128) = 0.180, p < .05$, agreeableness, $r(128) = 0.184, p < .05$, and empathy, $r(128) = 0.377, p < .01$. Neuroticism was negatively correlated with conscientiousness, $r(128) = -0.197, p < .05$. Openness was positively correlated with agreeableness, $r(128) = 0.242, p < .01$. Finally, openness was positively correlated with empathy, $r(128) = 0.186, p < .05$. However, most of the correlations were not found to be of much interest to the researchers because these correlations had previously been known (McCrae & Costa, 1987). What was of interest to the researchers were those that were correlated with touch and those that had a p-value of above .3, which included the correlation between agreeableness and empathy, conscientiousness and openness, and extraversion and empathy (see *Table 1* below).

Next, the researchers ran a regression to see if gender played a part in the correlations. Upon analysis, it was found that empathy is significantly related to touch, when taking into account an interaction of gender that was not significant, $\beta = 0.32, p < 0.01$. There was found to be no main effect for gender. Agreeableness is significantly related to touch, $\beta = 0.395, p < 0.01$ when controlling for a non-significant interaction with gender. Openness is no longer significantly related to touch when controlling for gender.

Discussion

This study was designed to discover if there was any sort of correlation between one's preference for touch and the personality trait of empathy. It was surmised that those who had a higher level of empathy, and therefore a desire for closeness with others, would have a higher preference for physical contact with other people. The results show a strong correlation between a participant's amount of empathy and their preference for touch, along with a strong correlation between a person's preference for touch and the Big Five personality trait of agreeableness.

These results indicate that one's preference for touch is correlated with not only empathy, but is highly correlated with several traits that are characteristic of the Big Five Personality Inventory, specifically agreeableness and openness. There is no correlation with neuroticism, negative or otherwise, in the results. When these results are interpreted and analyzed, it is apparent that there are several interpretations that could be made to explain these correlations. It is interesting to note that agreeableness and empathy, both of which were highly correlated to touch in our study, relate to other people. It could be argued that since touch and the personality traits all relate to how one behaves with others there could be a common cause for all three qualities.

The most likely explanation for the correlation between touch and empathy is that empathy and a preference for contact with other people both relate to closeness with others. A person with a high amount of empathy would likely feel close to another person due to an emotional connection. Furthermore, a person with a high preference for giving and receiving touch would likely feel close to others due to a physical connection. The researchers believe that, and the results suggest that, these two traits are simply two sides of one coin and are inherently related.

The correlation between a preference for touch with others and the Big Five personality trait of agreeableness is a somewhat unexpected result. Although previous research had indicated that touch is related to one's overall well being (Montagu, 1971), there was little about the Big Five personality characteristics specifically. The results indicate that there is not only a correlation between touch and agreeableness, but it is in fact the strongest correlation that we found. A regression analysis further strengthened the relationship. Although our results are somewhat unique given the lack of previous literature, it does provide insight as to the relationship between preference for touch and an overall more agreeable temperament. A likely reason for the correlation between agreeableness and touch is reason mentioned above: agreeableness deals with a person's ability to deal well with others. The definition of the Big Five personality trait of empathy is generally held as follows: a tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. This definition is very similar to the one used for empathy, so it is likely that our study captured both of these very well.

The relationship between agreeableness and preference for touch is likely due to the same effect that provides a correlation between touch and empathy. Consequently, it is interesting to ponder the idea that perhaps a person's preference for touch could lead to an increase in one's level of agreeableness or, inversely, that a high level of agreeableness could have an effect on one that leads them to enjoy physical contact more than those who are rated as less agreeable. The results that our study provided cannot give an answer to this. It does, however, indicate that there is a clear relationship between the two.

One of the main goals of this study was to discover the effect that gender had on our results. The researchers had speculated that gender would have a large effect on whether or not our results remained statistically significant. A regression analysis was performed in order to

compare correlations of gender in relation to touch. The test showed that there is no main effect for gender when it comes to comparing touch to empathy. This shows that there is little difference between men and women in comparing empathy and touch. A regression was run on agreeableness as well which provided the same results as empathy. When the regression was run for openness, however, it lost significance to touch. This shows that there is a significant difference between men and women when it came to comparing touch to openness.

If this study was to be repeated in the future, there are several things that could be changed to better yield accurate results. Although this was outside of our direct control, it would certainly be beneficial if we had gotten an even distribution of males to females. This would have allowed us to get better accuracy and reliability, especially when looking specifically at gender. Also, examining the accuracy of the preference for touch scale in an experimental environment would help strengthen its reliability as well. Finally, if a researcher were to run a retrospective/longitudinal study that charted the amount of touch during a participants' childhood and correlated that to how the participant scores on empathy and Big Five personality inventories throughout that same period of time it would allow for greater results. Finally, although we tested for this and found no significant difference, developing a scale that separates between "touch giving" and "touch receiving" could allow for more specific results.

Table 1 *Correlational Values Significant to the Study*

Trait 1	Trait 2	r	p- value
Agreeableness	Empathy	r = 0.436	p = .01**
Agreeableness	Touch	r = 0.381	p = .01**
Conscientiousness	Openness	r = 0.446	p = .01**
Empathy	Touch	r = 0.303	p = .01**
Extraversion	Empathy	r = 0.377	p = .01**
Openness	Touch	r = 0.186	p = .05*

* indicates p < .05,

** indicates p < .01

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