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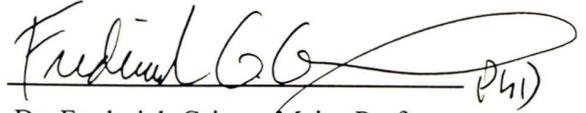
**EMPATHY AND PERSONALITY:  
CORRELATION OF AN EMPATHY SCALE (BEES) AND  
THE NEUROTICISM EXTROVERSION OPENNESS FIVE FACTOR  
INVENTORY (NEO-FFI)**

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**MICHELLE E. POWERS-NEILL**

To the Graduate Council:

I am submitting herewith a thesis written by Michelle Elizabeth Powers-Neill entitled "Empathy and Personality: Correlation of Scores on an Empathy Scale (BEES) and the Neuroticism Extroversion Openness Five Factor Inventory (NEO-FFI)." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Masters of Science, with a major in Community Mental Health.

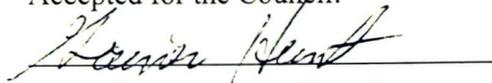
A handwritten signature in cursive script, appearing to read "Frederick Grieve", written over a horizontal line. To the right of the signature, the initials "PhD" are written in a smaller, less formal cursive.

Dr. Frederick Grieve, Major Professor

We have read this thesis and  
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CORRELATION OF AN EMPATHY SCALE (BEES) AND  
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A Thesis

Presented for the

Master of Science Degree

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Michelle E. Powers-Neill

May 1999

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## Abstract

The relationship between empathy and personality was explored. Empathy is an important skill for counselors. Individuals who are naturally empathic exhibit certain characteristics, such as high levels of compassion and understanding, listening skills, and observing skills. The discovery of a relationship between personality traits and empathy would be important for professions such as psychology and social work. This association would give these professions possible methods by which to assess empathy in individuals who are interested joining the profession. In the present study the Neuroticism Extroversion Openness Five Factor Inventory (NEO-FFI) and the Balanced Emotional Empathy Scale (BEES) were used to investigate this potential relationship. The specific hypotheses under study were 1. empathy will be positively correlated with neuroticism, openness, and agreeableness; 2. empathy will be negatively correlated with extroversion and conscientiousness. Results indicated that there was a strong positive correlation between empathy and agreeableness and extroversion among graduate students, but not among professionals.

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## CHAPTER I

### LITERATURE REVIEW

Psychologists, teachers, guidance counselors, sociologists, and even business people use empathy as a way to connect with others. Empathy is not a communication process, it is an attitude, a way to understand people's thoughts and feel their emotions and then react to them, without passing judgment (Miller, 1989). It is a way of becoming the other person for a moment to more deeply comprehend the person's emotions, struggles, successes, and anxieties. Empathy has been called an art (Egan, 1994), and many will agree that some people are "born" with artistic talent. However, people who are not born with this talent can still learn how to be artistic. Likewise, there are some people who are naturally empathic. They exhibit certain characteristics, such as high levels of compassion and understanding, listening skills, observing skills, and low levels of judging others. On the other hand, these are characteristics that can also be learned. Richendoller & Weaver (1994) state that there may be certain personality traits associated with empathic attributes. If these associations were known it would be possible to tell from a personality inventory if a specific person had empathic tendencies. This would allow certain professions, such as psychology, social work, and education, to assess empathy in those who undertake such professions.

#### Definitions of Empathy

Richendoller and Weaver (1994) divide empathic response styles into three parts: empathic responsiveness, perspective taking and sympathetic responsiveness. Empathic responsiveness is considered the ability of a person to surmise someone else's emotions

and cognitions. Perspective taking is described as “imagining oneself in the place of another and experiencing affect congruent with that of the other” (Richendoller & Weaver, 1994, p. 304). Sympathetic responsiveness involves feeling sorry for someone not necessarily because one can imagine the feelings the other person is experiencing, but because one thinks about the situation and feels pity for the other person.

Eisenberg and Strayer (1987) describe empathy as “involving the vicarious sharing of affect” (p. 3). This sharing of affect can be described in many different ways. Ickes (1993) suggests that empathy can be divided into three parts: empathic understanding, expression, and communication. Empathic understanding refers to the ability of a person to understand and actually feel someone else’s emotions and cognitions. Empathic expression is the ability to convey one’s understanding of the other person’s emotional and cognitive state. Finally, empathic communication entails being able to create an environment and conversation where the understanding and expression of empathy can occur. Ickes argues that empathy is an important quality to assess in people because it leads to the perception of personality traits. If one can accurately empathize then one is able to determine more specifically the personality of another person. Therefore, this is an ability that would be helpful to be able to assess in future counselors and therapists.

Duan and Hill (1996) reviewed many studies on empathy research. They found that empathy research was spread throughout many areas of psychology, from altruism research to child cognitive development. They stated that this wide interest in empathy from so many different areas of psychology research “supports the claim that empathy is the very basis of all human interaction and an essential constituent of all psychological

phenomenon” (p. 262). Duan and Hill also discuss the fact that empathy research has been on the decline. Between the years of 1985 and 1994, only 11 studies pertaining to empathy have been published in major journals. They attribute this to the idea that there are so many different ways to look at empathy that some confusion exists around the research. However, they feel that such diversity of research should be fostered, and that more research on empathy should be done to help expand and solidify our knowledge base.

### Empathy and Therapy

Empathy is still an important component of psychotherapy (Rowan, 1986). It is an essential component throughout all psychological schools of thought. Empathy is not only used in Humanistic psychotherapy but in Adlerian, Psychodynamic, Behavioral and even Cognitive Behavioral therapies (Rowan, 1986). Adler discusses the importance of empathy in treatment. “We can succeed in treatment only if we are genuinely interested in the other. We must be able to see with his eyes and listen with his ears” (Adler, 1931, p. 172). Strupp (1989) discusses the importance of empathy in the therapeutic process. He believes that an open, accepting and empathic context is the most important environment for a therapist to create. Based on his own professional experience, Barrett-Lennard (1988) also discusses the importance of empathy. He refers to empathy as sensitive listening. He suggests that this kind of listening between people has the potential to help communication, promote personal healing and growth, enhance relationships, reduce stress and tension and help to broaden the base of human nature (Barrett-Lennard, 1988).

Fiedler (1950a & 1950b) did several studies that examined the “ideal” therapeutic relationship, and the differences that a variety of disciplines had on the relationship. In one study, Fiedler (1950b) looked at the concept of an “ideal” therapeutic relationship. He used experts and novices who considered themselves to be non-directive, eclectic or psychoanalytic in practice. He then had them do a Q sort to determine what they thought was an “ideal” therapeutic relationship. What he found was when forced to use the same terms on the Q sort cards, the experts across disciplines agreed with each other more than with the novices within their own discipline.

Fiedler’s (1950a) next study expanded on the ideal therapeutic relationship concept and compared the context of the therapeutic relationships among Psychoanalytic, Nondirective and Adlerian therapists and their clients. For this study, he reviewed taped interviews of the therapists. What he found was that there was more of a difference between an expert and a novice of the same school of thought, than between experts across the disciplines. Therefore, he states that “it is empathic rather than intellectual understanding of the patient” (Fiedler, 1950b, p. 443) that the experts of the three disciplines utilize to deal with the client’s issues.

Sloane, Staples, Christol, Yorkston & Whipple (1975) examined the differences between psychotherapy and behavior therapy. There were 94 participants who were diagnosed with moderately severe neuroses and personality disorders. They were randomly assigned to either analytically oriented psychotherapists or behavior therapists. The therapists all had different levels of experience, from 6 to 20 years for the behavior therapists and 8-35 years for the analytically oriented psychotherapists. The participants

were given the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1943), Eysenck Personality Inventory (EPI; Eysenck, 1947) to compare against their diagnoses. They were also given the Structured and Scaled Interview to Assess Maladjustment (SSIAM; Gurland, Yorkston, Stone, Frank & Fliess, 1972) to determine any psychological change during the therapy. Sloane et al. found that after 4 months the groups had improved significantly. However, there was no difference in the improvement among the two different types of therapy. The groups were followed up after one and two years. There was not a way to assess continued improvement based on the type of therapy because of the participant drop out. However, it was possible to determine that the improvement was not temporary. After two years, there was still a significant improvement in symptoms in both groups. One important factor that was found in this study is that patients, in both types of therapy groups, who reported higher levels of warmth, genuineness and empathy in their therapists were apt to have the greatest improvement.

Empathy can have an impact on clients. In a study examining crisis center calls involving 80 callers (20 males and 60 females), Young (1984) found empathy to be the most helpful behavior exhibited by the volunteers. Callers were given a confidential interview that contained questions dealing with their view of the phone session and their communication with the volunteer. The last question that was asked in the interview was what the callers thought were the most helpful and the least helpful behaviors demonstrated by the volunteer with whom they spoke. The callers reported that the most helpful behavior demonstrated was empathic listening.

Brewer and Apostol (1976) conducted a study on personality, empathy and counselor effectiveness in an attempt to determine the personality associated with counselor effectiveness and how empathy was involved in the effectiveness. Thirty-four counseling graduate students completed the Sixteen Personality Factor Questionnaire (16 PF; Cattell, Eber, & Tatsuoka, 1970). Three judges then viewed random clips of the graduate students counseling sessions and completed the Affective Sensitivity Scale (Campbell, Kagen, & Krathwohl, 1971) and Blocher's measure of counseling effectiveness (Blocher, 1968). Results indicated that students who were empathic as rated by the 16PF were rated as more effective counselors by the students.

These findings also correspond with work by Hogan (1975). He believes empathy is a contributing factor to a person's interpersonal development. Because an empathic disposition more or less ensures successful role performances, the empathic person should have considerable social self confidence and tend to seek out and enjoy social interaction. Conversely, the unempathic person should be clumsy and inept in his or her role performances, communicate poorly, and tend not to enjoy social interaction. Counselors who are able to demonstrate empathy will be better able to create an atmosphere of support and understanding for their clients. This, in turn, encourages clients to disclose more completely with the counselor (Hogan, 1975). Furthermore, counselors who are empathic will also be better able to accurately match their client's emotions and cognitions. Therefore, these professionals will most likely have a better hold on their personal selves, be more secure and be better able to deal with client threats and/or irrational behavior (Hogan, 1975).

Empathy is important in counseling because it can help clients to determine underlying issues that are repetitive among their concerns (Ottens, Shank & Long, 1995). Empathic responses by a counselor can trigger recognition of clients' feelings and issues that may have been hidden. These responses can give clients another view of their own issues, and another way to look at their own issues, thereby affording them another perspective and possibly better understanding of their uncertainties (Ottens et al., 1995).

Another study on empathy in clinical settings examined client satisfaction, brief intervention, and interpersonal skills (Shepard, 1992). This study involved 39 participants (20 male and 19 female); twenty-six participants were from age 20 to 44, 10 from 45 to 64 and 3 were over 65. The participants were taken from the population of clients at a mental health center who had come to the center for either mental health problems or social problems. None of the participants were clients who had been hospitalized without their consent. Differences in the clients' rating of satisfaction with therapy were found to be associated with interpersonal skills, communication skills, empathy, listening and genuineness of the counselor (Shepard, 1992). The clients who reported not being satisfied felt that their counselor did not understand their problems and did not proceed to help them effectively.

### Empathy and Personality

Studies have been conducted on the relationship and interplay between empathy and personality. Early studies done on empathy and personality revealed that individuals with different levels of empathy also exhibit different personality profiles (Hogan, 1975). Additional studies found that individuals with high empathy scores had low scores on

personality scales that measured introversion, anxiety and depression (Hogan, 1975) and psychoticism (Richendoller & Weaver, 1994).

One such study compared personality scores with an empathy scale in 80 students in a college social psychology course. Results indicated that individuals with high and low levels of empathy had very different profiles. Individuals with high levels of empathy were seen as “outgoing, optimistic, warm emotional people who have a strong interest in others” (Dymond, 1950, p. 349). Individuals with low levels of empathy were seen as “rigid introverted people who are subject to outbursts of uncontrolled emotionality. They seemed unable to deal with interpersonal relations very successfully” (Dymond, 1950, p. 349). This study is important as one of the first to establish the relationship between empathy and personality. However, the instruments used in the study were designed specifically for the study, therefore the generalizability of the findings is suspect.

The relationship between empathic response style and personality was examined in another study employing the definition of empathic understanding that Ickes (1993) described. That is, empathy is the ability of a person to understand and actually feel someone else’s emotions and cognitions. Perspective taking and sympathetic responsiveness were also included in the empathic response style.

In this study, Richendoller and Weaver (1994) gave 2,466 participants the Eysenck Personality Measure (Eysenck, Eysenck, & Barrett, 1985) and an empathy scale that they developed to measure specific empathic response styles. Results indicated that the participants with high Psychoticism (P) and Extroversion (E) scores had low empathic responsiveness scores. However participants with high P had low sympathetic

responsiveness whereas participants with high E had high sympathetic responsiveness. Therefore participants with high P were not shown to be empathic or sympathetic. However, participants with high E were not empathic but they were sympathetic. The Neuroticism (N) scale showed that participants with high N scores had high empathic but low sympathetic responsiveness. While an understanding of these relationships is important, the use of an idiosyncratic empathy measure with questionable reliability and validity limits generalizability. Another issue to consider is that the Eysenck Personality Inventory has not yet been shown to be relevant to therapy-like settings (Graham & Lilly, 1984).

Hogan (1975) compared scores on the MMPI profiles and an empathy measure, an earlier version of the Hogan Empathy Scale (Hogan EM; Hogan, 1969). The participants were 39 male college students. Hogan (1975) found that empathy had negative correlations with most scales on the MMPI. However, there were higher negative correlations with anxiety, depression, and introversion. This study again demonstrated a correlation between empathy and personality. However, the MMPI is a test that was developed more specifically for the diagnosis of psychiatric patients (Graham & Lilly, 1984). Thus, it is not the best measure to use for determining the empathy and personality correlations for a non-psychiatric population

### Limitations of Previous Studies

Several limitations were noted in the studies examining personality and empathy. The studies included a wide range of definitions for empathy. Furthermore, the empathy instruments that were used assessed a narrow range of empathy. Some focused only on particular parts of empathy such as sensitive listening or empathic response styles.

Because empathy has been defined throughout the years in so many different ways, it is important that the measure used encompasses the multitude of definitions. It must take in to account all the different components of being empathic, not just empathic listening and responding but every characteristic an empathic person uses. A broader spectrum of empathic ability will make the results more generalizable.

A related limitation is the measurement of the construct of empathy (Chlopan, McCain, Carbonell & Hagen, 1985). There are many different instruments available that measure different aspects of empathy. However, many of the scales, when examined closely, do not measure empathy or at least are not valid or reliable measures of empathy (Chlopan et al., 1985). According to Chlopan et al. (1985) only two scales have been found to be reliable and valid measures of empathy, the Hogan EM and the Questionnaire Measure of Emotional Empathy (QMEE; Mehrabian & Epstein, 1972). Unfortunately, these two scales measure different aspects of empathy. The Hogan EM is found to test an individual's ability "to put oneself in another's shoes" (Chlopan et al., 1985, p. 650). The QMEE is a measure of "vicarious emotional arousal to another's distress" (Chlopan et al., 1985, p. 650). It is possible that the two tests used in combination would most likely be a complete measure of the more well rounded concept of empathy. However, Mehrabian has developed an additional empathy measure, the Balanced Emotional Empathy Scale (BEES; Mehrabian, 1996). This scale has been found to be highly correlated with the QMEE (Mehrabian, 1996). The BEES scale is a more current measure of empathy and measures not only the amount of concern for other individuals but also the ability to feel others' distress. This scale is a better measurement for the well-rounded definition of empathy.

In addition, the personality instruments used in previous studies were all normed and developed for use with clinical populations. Clinical measures are designed to assess psychopathology and assess few “normal” personality traits. Most of the participants in past research have been from normal, not clinical, populations. Therefore, using a personality instrument that assesses normal personality characteristics would be more suitable for this type of study.

### The Present Study

It was anticipated that this study would advance our knowledge of the theoretical connections between empathy and personality. It may allow us to determine more specifically which personality traits are positively and negatively correlated with empathy. This would allow for future studies to be done that will help identify the important building blocks for developing empathy more completely among mental health professionals. This study used counselors and counselors in training as participants. This allows for generalization to the mental health professional population.

This study examined the relationship between empathy as assessed by the BEES and personality as assessed by the NEO-FFI. The NEO-FFI is a short version of the Neuroticism Extroversion Openness Personality Inventory Revised (NEO-PI-R; Costa & McCrae, 1992) which is a personality scale based on the Five Factor Model of personality (Digman, 1990) that is becoming more widely accepted. The NEO-PI-R was normed on a 1000 participants, with an equal gender split, who were selected based on 1995 Census projections for distribution of racial origin and age. These participants were selected from a pool of participants generated from an ongoing aging project, and from a study on job performance. Therefore, this test would be a better measure for determining personality

for a non-psychiatric population. The NEO-FFI which was used in this study is a short form of the NEO-PI-R.

The specific hypotheses under study were 1) empathy will be positively correlated with neuroticism, openness, and agreeableness; 2) empathy will be negatively correlated with extroversion and conscientiousness.

## CHAPTER II

### METHOD

#### Participants

There were two different groups of participants. The first group consisted of 29 professionals in the mental health field from. There were 11 male and 18 female professionals. The ethnic diversity was 27 Caucasians, 1 Hispanic American and 1 not specified. The mean age for the professionals was 39.07 years ( $SD = 10.19$ ). The range for professional time for mental health professionals was 1 to 31 years. The mean amount of time the professionals had spent in the mental health field was 10.75 years ( $SD = 9.08$ ).

The second group of participants were 21 students from Austin Peay State University graduate psychology programs. There were 17 female and 4 male students. The ethnic distribution was 20 Caucasians and 1 not specified. The mean age for the students was 30.43 years ( $SD = 7.94$ ). The range for professional time for students was 1 to 10 years. The mean amount of professional time was 2.62 years ( $SD = 3.00$ ). The reason for this high range is a student who came back to school to get a Master's degree after already having 10 years experience as a Chemical Dependency Counselor.

#### Instruments

Demographics. This questionnaire consisted of 6 items that assessed the participant's age, gender, race, employment, length of time in mental health field, and familiarity with personality and empathy instruments (see Appendix A).

Personality Inventory. The Neuroticism Extroversion Openness Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992) is a 60 item version of the Neuroticism Extroversion Openness Personality Inventory Revised (NEO-PI-R; Costa & McCrae, 1992) to be utilized when a quick and general assessment of personality is considered satisfactory. The NEO-FFI gives scores for the five domains, Neuroticism, Extroversion, Openness, Agreeableness and Conscientiousness. The test is a self-report measure divided into 5 sections with 12 questions in each section. The test is scored on a 5-point scale ranging from strongly agree to strongly disagree. The NEO-PI-R has been shown to have convergent and discriminant validity (Costa & McCrae, 1992). The NEO-FFI has been correlated with the five major domains of the NEO-PI-R and all the correlation were above .87, except for Openness which was .77. The NEO-FFI internal consistency coefficients (Cronbach's Alpha) were all above .68 for the five domains (Costa & McCrae, 1992). Therefore, the NEO-FFI has the same validity as the NEO-PI-R.

Empathy Inventory. The Balanced Emotional Empathy Scale (BEES; Mehrabian, 1996) is a 30-item self-report scale with an equal number of positively and negatively worded items. It measures the participant's ability to experience an individual's emotions and interpersonal feelings (Mehrabian, 1996). The test is scored on a 9 point scale, ranging from -4 equaling very strong disagreement to +4 equaling very strong agreement. The test is for use with participants over the age of 15. The internal consistency (Cronbach's alpha) for the BEES is .87 (Mehrabian, 1997). An earlier empathy test of Mehrabian's, the Emotional Empathic Tendency Scale (EETS) was reviewed and found to have appropriate validity (Cholpan et al., 1985). The BEES is highly correlated to the EETS with  $r = .77$  correlation. Therefore, Mehrabian (1996) contends that, with this high

of a correlation, much of the validity of the EETS is also characteristic of the BEES (Mehrabian, 1996).

### Procedures

Folders of information containing the informed consent document, demographics sheet, NEO-FFI and BEES were distributed to the volunteers in several group settings. After informed consent documents were read and signed, the researcher explained the study and asked volunteers to complete the instruments. It took approximately 20 minutes for completion of both instruments. Some packets were distributed and returned by mail. To insure confidentiality of the mailed packets, the folders included a separate stamped envelope in which to mail the informed consent form. The informed consent envelopes were numbered. The numbered consent envelopes were matched with the numbered tests to insure that consent was received on all tests before data was entered and analyzed. Volunteers were not compensated for their participation in this study.

## CHAPTER III

### RESULTS

The data for this study were analyzed in four different ways. First, a series of paired t-tests were performed to determine if there were any differences between the two groups (students and professionals) on the independent measure. Second, a Pearson correlation was performed between the subscales of the NEO-FFI and the BEES total score using all participants in order to evaluate both of the hypotheses under study. Third, as students and professionals may differ on characteristics other than the independent variables, the two groups were separated and two Pearson correlations were performed on the subscales of the NEO-FFI and the BEES total score. Finally, for each of the subscales of the NEO-FFI, individuals (regardless of group) with extreme scores (E.g., extremely high scores vs. extremely low scores) were compared to each other on the BEES total score.

#### Participant Analysis

A series of paired t-tests were performed on the subscales of the NEO-FFI and the BEES to determine if there were differences between students and professionals. In order to avoid capitalizing on chance, a Bonferroni correction for pairwise multiple comparisons was used. As there were eight analyses,  $p$  was set  $\alpha < .006$  to indicate statistical significance (Pedhazur, 1982) As shown in Table 1, professionals were significantly older and had significantly more experience than students. However, there were no differences between the groups. Therefore, both groups can be combined for statistical analyses.

TABLE 1

Means (and Standard Deviations) on the NEO-FFI and BEES for Students and Professionals

Scale	<u>Students</u>	<u>Professionals</u>	<u>t (1,48)</u>
	<u>M (SD)</u>	<u>M (SD)</u>	
Age	30.43 (7.94)	39.07 (10.19)	3.22**
Experience	2.62 (3.01)	10.76 (9.08)	3.95**
Neuroticism	49.52 (12.10)	47.62 (10.03)	-0.60
Extroversion	55.67 (9.87)	53.48 (11.82)	-0.69
Openness	55.57 (9.82)	54.52 (10.90)	-0.35
Agreeableness	52.67 (13.24)	57.31 (7.27)	1.59
Conscientious	51.19 (8.69)	49.31 (10.81)	-0.66
Bees Total	63.52 (30.75)	58.16 (19.82)	0.71

Note: \*\*  $p < .006$

### Correlations Between Empathy and Personality

In order to evaluate the hypotheses under study (that empathy would be positively correlated with neuroticism, openness, and agreeableness and negatively correlated with extroversion and conscientiousness), a series of Pearson correlations were performed on

the subscales of the NEO-FFI and the BEES total score. First all participants were evaluated as a single group. Next, because students and professionals differ on age and experience, the groups were separated and the same Pearson correlation was repeated for both groups.

As shown on Table 2, for all the participants as a group Extroversion and Agreeableness both were positively correlated with the BEES total score at the  $p < .01$  significance level. There was not a significant relationship between Neuroticism, Openness, and Conscientiousness and the BEES total score.

TABLE 2

Correlations Between NEO-FFI Subscales and the BEES Total for Both Groups.

	Neuro	Extro	Open	Agree	Conscient
Neuroticism	1.00				
Extroversion	-0.346	1.00			
Openness	0.143	0.124	1.00		
Agreeableness	-0.477	0.298	0.127	1.00	
Conscientiousness	-0.361	0.122	-0.014	-0.027	1.00
BEES Total	0.020	0.385**	0.247	0.418**	-0.003

Note: \*\*  $p < .01$

Next, participants were separated into the student and professional groups. Two sets of Pearson correlations were run between NEO-FFI subscales and the BEES total score, one for each group. As shown on Table 3, there were no significant correlations between the subscales of the NEO-FFI and the BEES total score for professionals.

TABLE 3

Correlations Between NEO-FFI Subscales and the BEES Total for Professionals.

	Neuro	Extro	Open	Agree	Conscient
Neuroticism	1.000				
Extroversion	-0.434	1.000			
Openness	-0.015	0.119	1.000		
Agreeableness	-0.406	0.347	0.054	1.000	
Conscientiousness	-0.444	0.211	0.122	-0.105	1.000
BEES Total	0.217	0.206	0.269	0.286	-0.083

As shown on Table 4, there were two significant correlations for students. Both Agreeableness and Extroversion were significantly positively correlated with the BEES total score for the group of students. There was not a significant relationship between Neuroticism, Openness, and Conscientiousness subscales and the BEES total score.

TABLE 4

Correlations Between NEO-FFI Subscales and the BEES Total for Students.

	Neuro	Extro	Open	Agree	Conscient
Neuroticism	1.000				
Extroversion	-0.266	1.000			
Openness	0.341	0.120	1.000		
Agreeableness	-0.527	0.364	0.233	1.000	
Conscientiousness	-0.289	-0.091	-0.291	0.088	1.000
BEES Total	-0.142	0.605**	0.237	0.537*	0.068

Note: \*\*  $p < .01$ , \*  $p < .05$

Extreme Scores on Personality

The BEES total scores of individuals who scored one standard deviation above the mean on each of the NEO-FFI subscales were compared to the BEES total scores of individuals who scored one standard deviation below the mean. (For T-scores of those above and below the mean on each subscale see Appendix C) This analysis was done to examine how empathy scores differed as a function of high and low personality traits. A series of paired t-test was performed on the BEES total score comparing high and low scores for each of the subscales of the NEO-FFI. In to avoid capitalizing on chance, a Bonferroni correction for pairwise multiple comparisons was used. As there were 5 analyses,  $p$  was set a  $< .01$  to indicate statistical significance (Pedhazur, 1982) As the

number of participants for each group was extremely small ( $N < 10$  for each group) effect sizes (d scores) were computed as a supplement to the probability analysis.

Table 5 lists the BEES total empathy scores and corresponding z-score for each personality trait one standard deviation above and below the mean. While none of the t-test indicated a significant difference, examination of effect sizes indicates there were meaningful differences between high and low scorers in Agreeableness and Extroversion. Effect size for Neuroticism, Openness and Conscientiousness did not indicate a meaningful difference.

TABLE 5

Means (and Standard Deviations) and z-scores for BEES total scores for participants one standard deviation above the mean and one standard deviation below the mean

	<u>One SD</u>		<u>One SD</u>		<u>DF</u>	<u>t-score</u>	<u>p-value</u>	<u>d</u>
	<u>above</u>	<u>z-score</u>	<u>below</u>	<u>z-score</u>				
Neuroticism	60.10 (32.71)	0.63	57.71 (27.63)	0.46	1,17	0.29	0.77	0.09
Extroversion	59.43 (12.63)	0.60	47.40 (23.86)	0.10	1,15	1.21	0.24	0.50
Openness	63.14 (29.20)	0.76	60.38 (12.59)	0.64	1,13	0.24	0.82	0.22
Conscientious	64.80 (32.71)	0.83	57.71 (27.63)	0.53	1,10	0.41	0.70	0.26
Agreeable	79.33 (10.78)	1.43	48.00 (31.72)	0.13	1,10	2.29	0.06	0.99

## CHAPTER IV

### DISCUSSION

#### Explaining Correlations Between Empathy and Personality

The hypotheses of this study were that 1) empathy would be positively correlated with neuroticism, openness, and agreeableness and 2) empathy would be negatively correlated with extroversion and conscientiousness. The results of this study showed that in the group of graduate students, empathy was positively correlated to extroversion and agreeableness. There were no correlations found between empathy and neuroticism, openness or conscientiousness. There are three possible explanations for a significant correlation. It can mean that empathy has an effect on personality, personality has an effect on empathy, or that there is a third unknown variable that effects both empathy and personality.

The positive correlation between empathy and extroversion contradicts the results found in the study by Richendoller & Weaver (1994). They found that when participants had high levels of extroversion they were not empathic, but they were sympathetic. One possible explanation of this could be that Richendoller & Weaver used a self-developed empathy measure in their study. This scale was adapted from several studies, one in particular was the QMEE, which is an earlier empathy scale developed by Mehrabian. For their study, they defined sympathetic responsiveness as feeling sad, concerned or sorry for someone's circumstances. The BEES also measures how an individual feels for another person. Therefore, it could be that what Richendoller & Weaver's scale detected as

sympathetic responsiveness is one aspect that the BEES measures as a component of emotional empathy.

The correlation between empathy and agreeableness is not one that was found in the literature. The NEO-FFI manual describes an agreeable person as “sympathetic and eager to help” (Costa & McCrae, 1992, p. 15). This correlation seems to be supported by the various definitions of an empathic person. For example, individuals who are empathic have high levels of compassion and understanding. They are able to see where the other people are coming from emotionally and are able to help the people more effectively. This corresponds well with the definition of an agreeable person. The BEES measures not only an individual’s ability to feel others’ distress but also the amount of concern for others. This concern could also be referred to as sympathy. Therefore, it could be that the sympathetic aspects of an agreeable person are what connect empathy and agreeableness.

### Discussing Extreme Scores on Personality

When the extreme scores on each of the NEO-FFI subscales were examined, only high and low scorers on Agreeableness demonstrated a meaningful difference in empathy scores. Participants with extremely low scores on Agreeableness had lower levels of empathy than participants with extremely high scores on Agreeableness. While this was not a statistically significant difference, examination of effect sizes sheds light on the analysis. An effect size of .99 is considered a large effect size, therefore, the difference between high and low scores on Agreeableness is a meaningful difference.

Extroversion had a similar relationship. Participants with extremely low scores in Extroversion had lower empathy scores than participants with extremely high scores in

Extroversion. Again, there were no statistically significant differences, but there was a effect size of .50 which is considered a moderate effect size. There relationship can also be considered meaningful.

There were no differences in empathy scores between high and low scorers on Neuroticism, Openness, and Conscientiousness. Not only were these differences not statistically significant, they also had small effect sizes.

Please note that these results must be interpreted with caution as there were less than 10 participants per group. With such a small N, generalizability of the results may be problematic. However, taken together with the other results presented, it indicates that there is a meaningful relationship between the personality domains of Agreeableness and Extroversion and empathy.

### Relationship Between Personality and Empathy

These findings support the existing research on the tie between personality and empathy. Some researchers (Dymond, 1950; Hogan, 1975; and Richendoller & Weaver, 1994) have indicated that a relationship may exist between empathy and personality. Dymond (1950) found that participants with high level of empathy were positive, compassionate, and social people. This finding was also indicated in this study. Individuals with high levels of empathy had positive correlations with extroversion and agreeableness. Therefore, there is a relationship that exists between empathy and extroversion and agreeableness. As was stated before, for the NEO-FFI, an agreeable person is seen to be compassionate and sympathetic. An extroverted person is described as a social person who is optimistic and energetic (Costa & McCrae, 1992). Therefore

individuals with high levels of empathy for this study could be described as compassionate, optimistic and social people. These results support the previously stated findings of Dymond (1950).

The current study helps to broaden the scope of research to include personality measures of non-clinical populations. This is important because previous research has been done only with measures designed to assess psychopathology. Since the participants in this study were Psychology graduate students in applied courses and mental health professionals, it is important that a non-clinical personality measure be used.

### Future Research Directions

In the group of professionals there were no significant correlations found. This was a surprising finding that needs to be explored more. Many researchers (Barrett-Lennard, 1962; Duan & Hill, 1996; Fielder, 1950b) have found that the more experienced a counselor is the more empathy the counselor has to offer to their clients. However, the results from this study seem to contradict that finding. One possible explanation for this is counselor burnout. Most of the professionals in this study were from various community mental health agencies. There is a possibility that these counselors could have been in a state of burnout.

In a study on staff burnout, Cherniss (1980) found that human service professionals suffering from burnout were also seen to be less sensitive and empathic by others. Beck (1987) found that in family service agencies, there were significant correlations between burnout and low support, work pressure, and personal vulnerabilities. Miller, Stiff and Ellis (1988) discuss a model of communication, empathy

and burnout in human services workers. First, they explained the differences between two types of empathy, emotional contagion and empathic concern. Emotional contagion is closely related to this study's definition of empathy, where an individual feels the emotions of another, actually experiencing them. The second type of empathy, empathic concern, deals with feeling concern about the person's problems, but not actually experiencing their emotions. Miller et al. (1988) state that even though the ability to feel someone's emotions will allow an individual to communicate and care for another more effectively, it may also lead to emotional exhaustion and, hence, burnout.

Williams' (1989) research done on empathy and burnout in social workers, nurses, and teachers supports Miller's research. Her theory, based on her research, is that individuals with high emotional empathy are more vulnerable to emotional exhaustion if there are low levels of personal accomplishment. Therefore, when individuals with high empathy are in this situation, their emotional empathy may decrease as a way to lessen their amount of emotional exhaustion. Williams believes this may be a factor in the relationship between burnout and empathy. This could also help to explain the lower empathy scores in the mental health professionals within this study. Burnout and low levels of personal accomplishment could have led to lower empathy scores. Unfortunately, burnout was not assessed in this study.

Some alternative hypotheses about the lower empathy scores in professionals could be that empathy is affected by age and/or experience. It could be that the mental health professionals are not as aware of their empathic tendencies, because with all of their experience, empathy has just become a part of who they are, like "background

noise". Where as the students are very aware of empathy because of the classes they are taking and the skills they are trying to master. Therefore, the measure may tap in to a different aspect of empathy for professionals vs. students.

An interesting theoretical question that ensues is why there was a strong relationship between these constructs with students but not with professionals. Future research should investigate this change.

This study also helps to expand the research of empathy by defining more completely the possible personality domains that are associated with the development of empathy in individuals. Duan & Hill (1996) state that that researchers need to go back and begin to study empathy again. They believe that the understanding of empathy and all of its different aspects is crucial for understanding other concepts, such as working alliance.

### Limitations

There were some limitations in this study. Sampling bias may have occurred for several reasons. First, subjects were not picked randomly. Therefore, it may be that the individuals who chose to respond were different in some way and that may affect the results. Second, because the participants were all in the mental health field, there may be a different level of empathy based on the number of years in the profession. Another factor could be the types of mental health settings that the professionals were working in. Most of the professionals were from various community mental health agencies. This could have affected the results, because of possible burnout due to high client volume and low control over the number of clients seen. Due to the low number of participants, these

results may not be generalizable to other populations. In addition, mental health professionals may have had a personal view of empathy that impacted their scores on the instruments. There is also a chance that the results were not as accurate because the instruments used are both self report measures. The limitations of self report measures have been discussed in detail elsewhere (Schwarz, 1991).

### Conclusion

There have been many studies done on empathy. These studies have helped to define more clearly the importance of empathy, to illustrate the many different dimensions of empathy, and to raise more questions about empathy. This study demonstrated that there are connections between personality and empathy. The group of graduate students empathy scores were found to be correlated with the NEO-FFI subscales of Agreeableness and Extroversion. There was no relationship found for the group of professionals. More research needs to be done to examine this difference.

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## APPENDICES

## APPENDIX A

**Demographics**

1. **Gender** Male/Female
  
2. **Age** \_\_\_\_\_
  
3. **Race/Ethnic Group** \_\_\_\_\_
  
4. **Current Employment** \_\_\_\_\_
  
5. **Length of time in mental health field** \_\_\_\_\_
  
6. **Administered BEES?**    Y/N    **How many times?** \_\_\_\_\_  
    **Administered NEO-FFI?** Y/N    **How many times?** \_\_\_\_\_

## Informed Consent Document

Dear Participant,

You are being asked to participate in the following research study. Please read the following- material carefully. It contains the purpose of the investigation, the procedures to be used, risks/side effects and benefits of your participation in the study, and what will happen to the information collected as part of the research project in which you are participating.

1. The purpose of this research project is to examine if there is a relationship between empathy and personality. Empathy is a way to understand and feel other people's thoughts and emotions. In the past, there have been some studies showing a relationship exists. However, this study is examining the relationship specifically among mental health professionals using more recent scales for both empathy and personality
2. The procedures to be used. *What you will be asked to do.* You will be asked to complete the Balanced Emotional Empathy Scale (BEES), the Neuroticism Extroversion Openness Five Factor Inventory (NEO-FFI; which are enclosed) and 6 demographic questions about yourself and your job.
3. Regarding risks and benefits. You are being asked to reveal some information about your personality and empathic tendencies. Every precaution will be taken to ensure that this information will be kept confidential. Participants will be assigned a subject number and this number will be the only identifying information on the questionnaires. For those of you responding by mail, you have a separate envelope in which to return your informed consent. This will ensure confidentiality through the mail. This list will be locked up in a separate location from the data, which will also be locked up. If you decide to withdraw from the study, you can contact Michelle Powers-Neill or Dr. Grieve and let them know that you would like your data removed from the database.

There is no deception being used in this study. All of the measures have been used in previous studies. The information in the questionnaires is not likely to cause psychological distress.

This study is examining empathy and personality in the hopes of defining more completely the possible personality domains that are associated with the development of empathy in individuals. Possibly, the findings could even help stimulate future research to determine how to better train mental health professionals in empathic communication.

4. What will happen to the information collected. The information collected from your participation in this study will be used for purposes of instruction and scientific publication. In any such use of the information, all identities will be carefully protected. The identities of participants will not be revealed in any published or oral presentation of the results of the study. Information will be made public in the form of summaries which make it impossible to tell who the participants were. If you wish, you will be able to receive a copy of the results of the investigation and/or discuss the study in detail with a researcher at the conclusion of the investigation. If you are interested in receiving such information, be sure to let the experimenter know as soon as possible.

You can withdraw from the study within 72 hours from the time the data is received by Michelle Powers-Neill. To do so, remember your identification number and call either Michelle Powers-Neill or Dr. Grieve.

**Please read the statements below. They describe your rights and responsibilities as a participant in this research project.**

1. I agree to participate in the present study conducted by Mrs. Michelle Powers-Neill and supervised by Dr. Frederick G. Grieve, a faculty member in the Department of Psychology of Austin Peay State University.

2. I agree to complete the enclosed Balanced Emotional Empathy Scale and NEO-FFI and demographic questions and return them to Michelle Powers-Neill or Dr. Grieve.

3. I have been informed in writing of the procedures to be followed and about any discomfort which may be involved. I have also been told of any benefits that may result from my participation. Dr. Grieve has offered to answer any further questions that I may have regarding the procedures and he can be reached by phone at (931) 648-7235 Monday-Friday.

4. I understand that I may withdraw from participation at any time up to 72 hours without any penalty or prejudice and to have all data obtained from me withdrawn from the study and destroyed.

5. I realize that by signing this form, I willingly consent to participate in this study. I also acknowledge that I have been given a copy of this consent form to keep.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name (please print)

## APPENDIX C

## Cutoff Scores for the Extreme Group Analyses

<u>Scale</u>	<u>Low Cutoff</u>	<u>High Cutoff</u>
Neuroticism	37.55 (Low)	59.29 (High)
Extroversion	43.42 (Low)	59.29 (High)
Openness	44.59 (Average)	65.33 (High)
Agreeableness	45.01 (Average)	65.71 (Very High)
Conscientiousness	40.18 (Low)	60.02 (High)

## VITA

Michelle Powers Neill was born in Poughkeepsie, New York on December 12, 1970. She attended both Spackenkill High School and Wayzata High School, where she graduated from in June of 1989. She attended Augsburg College in Minneapolis, MN and received her Bachelor of Arts in Psychology. She then spent two semesters in graduate classes at the Adler Institute of Minnesota. She entered the psychology graduate program at Austin Peay State University in August of 1994. She is currently pursuing a Master of Science degree in Community Mental Health Counseling. She is expected to graduate in August of 1999.