Measuring Decentering and Attachment in a University Clinical Sample

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Abstract

This study looked at the relationship between decentering and attachment among 48 clients from the Psychology Clinic at the University of North Texas. The Thematic Apperception Test (TAT) and the Adult Attachment Scale (AAS) were administered to the clients along with demographic packets. Decentering was assessed using Feffer’s Decentering Scoring System for the TAT. It is hypothesized that securely attached individuals will show higher levels of decentering, avoidant attached individuals will show lower levels of decentering, and married individuals and individuals in committed relationships will score higher on decentering. The results were not significant for the three hypotheses, but there were some modest effect sizes between the two systems.
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Piaget proposed that schemata determine how one interacts with the environment. With time, maturation, and experience, schemata become more complex as cognitive capacity increases (Hergenhahn, 2005). Piaget’s decentering theory described the stage (4-5 years of age) at which a child understands that one cannot experience what the other can. Decentering takes place during Piaget’s preoperational stage. Within this stage, there is a shift from egocentrism into theory of mind. Egocentrism describes the time when children are aware of themselves, object permanence, and time. However, they are unable to take the point of view of another. Theory of mind is developed as the child realizes the mental states of others (Myers, 2001). Decentering takes place when one becomes aware of the actions, thoughts, and emotions of others.

Feffer’s Decentering

Feffer applied this theory to interpersonal decentering within adults using the Role Taking Task (RTT) and the Thematic Apperception Test (TAT) decentering scoring system (Jenkins, Dobbs, & Leeper, 2004). The process of administering the RTT begins with first having the client tell a story about the ambiguous scene depicted in a TAT card, and then having them take on the role of other characters in the picture to tell the story from other points of view (Feffer & Jahelka, 1968). Decentering was measured using the amount of description given to the characters and the consistency or differentiation of the set of stories. The consistency of the different perspectives would indicate lower decentering, whereas greater differentiation would be show by the ability of the client to refocus from the first story to each other story.

The TAT version of decentering takes just the first story from the client and scores it along different categories of decentering behaviors, see Table 1. The categories come from the
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varying levels of complexity that the client assigns to the relationships between the characters within the story. The degree of organization of this interpersonal activity also measures decentering (Feffer & Jahelka, 1968). The more complex structure given to interpersonal relationships within the first RTT story is related to better role taking within the remainder of the stories. This is evidence of an association between the TAT measure and the RTT (Feffer & Jahelka, 1968).

The RTT measures the ability to consider more than one perspective simultaneously. Feffer and Suchotliff (1966) found that this ability is associated with verbal skill at social interactions, which was measured by the communication of 36 words in a password task. In order to control for the possible correlation with verbal skill, verbal intelligence was measured by the WAIS, verbal fluency by the letter P assessment (the quantity of words beginning with the letter p given within one minute), and verbal similarity (similar responses of dyads given to key words). Later Feffer and Jahelka (1968) found that the RTT and the TAT do not measure verbal intelligence, but they do share an underlying construct. Piaget's view of intelligence is a system of operations that differentiates between changes and constants, as well as other biological adaptations. The RTT was designed with this concept of intelligence, so successful role taking includes stating change while observing the constants of previous stories (Feffer & Jahelka, 1968). Further research has also shown the lack of relationship with decentering and intelligence (reviewed in Jenkins et al., 2004).

Jenkins et al. (2004) looked at decentering within social relationships. In the college sample, people who reported more problems with domineering scored lower on decentering and those who reported a lack of assertiveness scored higher. People who decenter to a greater extent also tended to have slightly higher scores for the Social Network Index and, for men only, tended
to have a confidant. In the clinical sample from Jenkins and her colleagues, clients who had been victims of violence in a close relationship scored higher on decentering and those who had been a perpetrator of violence scored significantly lower.

There are three ways in which to calculate decentering scores for the TAT. They represent different assumptions about how decentering in stories might generalize to decentering in participants' lives. The three scoring methods are important because decentering is not necessarily a construct that is stable over time, like a personality trait. The nature of decentering may be more situation-specific than a personality trait. For example, if a person takes the afternoon off of work to complete several errands with a friend, they are likely to describe the errands they accomplished and the order in which it was completed (i.e., action oriented decentering, which would receive a low score in a story). However, if this person experiences an emotional breakup with their significant other, he/she is likely to contemplate the significant other's thoughts in relation to him/herself (i.e., internalized decentering, which would be given the highest score).

The first calculation method uses only the highest single score. It is a measure of the highest level of decentering ability used in any of the situations sampled by the stories. In the examples above, only the higher score of contemplating the significant other's thoughts in relation to him/herself would be used in this calculation. The second way averages the scores from all the interactions within the stories. This calculation measures how thorough and consistent a person is at decentering. The third is to average only the single highest score from each of the different stories. In the examples above, the higher score of contemplating the significant other's thoughts in relation to him/herself would be used in relation to similar other
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highest scores from the series of stories for this calculation method. It measures the highest level of decentering ability usually used across different social situations (Jenkins et al., 2004).

The decentering system has improved greatly since Feffer and Suchotliff (1966) first applied the concept of decentering, taken from Piaget's work with children, to adults with the RTT. Feffer and Jahelka (1968) found that the TAT version of decentering, which scores stories using different categories of decentering behaviors, can measure decentering as well as the RTT. Jenkins et al. (2004) found decentering useful in understanding clients who had been victims of violence and those who had been a perpetrator of violence. Decentering is an important aspect of social relationships, as is attachment.

Attachment

John Bowlby graduated from Cambridge University in 1928 with a medical degree, specializing in psychiatry (Ainsworth & Bowlby, 1991). Throughout his illustrious career, Bowlby extended the knowledge of developmental psychology. Bowlby was convinced of the significant role of parental interaction in development of children. He believed that to have good psychological health as an adult, the child should experience a "warm, intimate, and continuous relationship" with a parent (Bretherton, 1992, p. 761).

Mary D. Salter Ainsworth graduated from the University of Toronto in 1939 with a degree in psychology (Ainsworth & Bowlby, 1991). She focused her undergraduate career on security theory, and later in life, Ainsworth helped define the concept of attachment. Ainsworth was heavily influenced by Blatz's security theory during her undergraduate work (Bretherton, 1992). She removed the immature dependent security portion of the security theory, which occurs when an infant feels secure from relying on parental figures to give care, comfort, and reassurance before exploring the world.
Bowlby believed that attachment was an active process and an important component of behavior. It has the biological function of protection in adulthood and childhood. In 1954, Ainsworth began her research in Uganda. This was the first ethological study of attachment between mother and child. She categorized the babies into three groups based on level of attachment: secure, insecure, and nonattached. Securely attached babies cried mostly when the mothers were absent, insecurely attached babies cried a lot even when the mother was present, and nonattached babies received little attention from their mothers in general. Secure attachment correlated with maternal sensitivity. These results matched Bowlby's continually developing theory of attachment and Blatz's security theory.

In the mid 1960s, Ainsworth continued her study of attachment with another longitudinal study, this time collecting observational data on babies and their interaction with their mothers in Baltimore (Ainsworth & Bowlby, 1991). Part of the data collection was the strange situation. Bretherton (1992) describes the strange situation as the observation of mother and child in a room with various toys. After a while, the mother left the child alone, and then the stranger was introduced to the environment. Later, the mother returned. During the strange situation, children explored more in the presence of the mother and less when the stranger was present. This strange situation turned into a quick way in which to assess attachment. Mothers who responded promptly to crying early on had infants who cried little and were securely attached. Securely attached babies were more likely to explore the environment. This suggests that "infants have a natural behavioral disposition to comply with the wishes of the principal attachment figure" (Ainsworth & Bowlby, 1991, p. 338), although this is not a testable hypothesis and compliance was not measured.
In the late 1960s, Bowlby’s first volume was published, entitled *Attachment* (Bowlby, 1969). It was influenced by Ainsworth’s work in Uganda. He theorized that attachment develops as the person develops attachment models within the self, which allows for the “goal-corrected partnership” later in life between mother and child (Ainsworth & Bowlby, 1991). This partnership occurs when the child begins to recognize the plans of the attachment figure and acts accordingly. In the second volume, *Separation* (Bowlby, 1973), separation anxiety occurs when the mother leaves the baby after the mother and baby have formed an attachment. He expanded on attachment theory by describing how, if the attachment figure provides protection and comfort, while allowing the child to explore the environment, the child will have a self-concept that is self-reliant and self-valued (Bretherton, 1992). In the third volume, *Loss* (1980), Bowlby related defensive exclusion to loss experiences. When loss occurs, a securely attached person retrieves previous encounters in order to evaluate the current situation. Defensive exclusion is the omission of anxiety causing information, and it is usually characteristic of an avoidant person. He also pointed out a similar response to loss in adults and children.

Bowlby thought that attachment is part of the foundation of personality development, and “remains relevant from cradle to grave” (Joubert, in press, p. 3). Adult attachment is composed of internal relationship models adopted early on in life. The response of the caregiver is likely to become internalized in the psyche of the child and then in the personality of the mature adult as a relationship model. These working models not only develop as the child grows, but also determine how the child will predict and view interpersonal relationships (Bradford & Lyddon, 1994).

*Measuring Attachment*
In a stressful situation, a person will likely respond in a predictable manner that is representative of his or her own personal attachment style. Hazan and Shaver (1987) were the first to use the self-report style on romantic attachment. The discrete, categorical measure was based on Bowlby's three attachment categories: secure, avoidant, and anxious. Participants read three paragraphs; each based on one of the three attachment categories, and then chose the one that best characterizes their general orientation toward romantic relationships (Hazan & Shaver, 1987). Securely attached participants described their relationships as close with emotional comfort. Avoidant-attached participants were uncomfortable with closeness and expressed a lack of trust in their relationships. Anxiously attached participants had reluctance about closeness and expressed worry that they would not be cared for in their relationships.

The majority of attachment measures used on adolescents and adults rely on self-report measures. However, these self-report measures do not correlate well with other measurements of adult attachment (Joubert, in press). Bradford and Lyddon (1994) identified three main problems with Hazan and Shaver’s measure: 1) the client must fully endorse or not endorse the whole paragraph, which may not completely represent them, 2) the practitioner cannot figure out to what degree each style represents the client, and 3) the measure assumes mutual exclusion between the attachment categories.

Collins and Read (1990) designed their attachment measure, the Adult Attachment Scale (AAS), with the limitations of Hazan and Shaver’s measure in mind. The AAS is an 18-item assessment consisting of three dimensions: how much an individual (a) is at ease with closeness (Close), (b) depends on people (Depend), and (c) is anxious about personal abandonment (Anxiety). Collins and Read (1990) used a cluster analysis to relate the AAS and Hazan and Shaver’s measure. The secure cluster had high Close and Depend scores and low Anxiety scores.
The anxious cluster had high Anxiety scores and moderate Close and Depend scores. The avoidant cluster had low Close, Depend, and Anxiety scores. Securely attached clients had a more positive self-outlook and worldview than did avoidant or anxiously attached respondents (Collins & Read, 1990).

The AAS provides insight on people’s relationships between themselves and others and their internal models of relationships. The underlying categories lead to a more accurate measurement of adult attachment than previous measures of attachment. It provides a dimensional analysis of the three categories of attachment instead of assuming discrete categories. The AAS also allows us to assess dimensions that underlie attachment styles without losing the framework that ties them together. This allows a practitioner to be aware of how secure, anxious, or dependent the attachment of a client is. The AAS measures adult attachment better than discrete measures with categorical results do, while also relating to the original attachment categories proposed by Bowlby.

**Present Study**

Research was conducted on the relationship between decentering and attachment. The present study tested correlations between the decentering scoring system for the TAT and the AAS. It was proposed that attachment might have an effect on the development of decentering (or visa versa) since the theories of the two share like concepts, such as goal-corrected partnerships (Ainsworth & Bowlby, 1991) and working models affecting interpersonal relationships (Bradford & Lyddon, 1994). Special attention was paid to the results achieved with each of the score aggregation methods for the decentering assessment of the TAT. Hazan and Shaver (1987) found a relationship between attachment and romantic relationships, so if the two measure are correlated, as this study predicts, decentering should also be affected by the
relationship status of the client. If the relationship status is serious, the level of decentering should be higher because individuals in a serious relationship are more likely to engage in high levels of decentering, such as the formation of the relationships itself, and when partners are involved in the various relationship duties that require the consideration of thoughts or emotions.

In order to assess the original categories from Bowlby’s theory of Attachment, the categories from the AAS were transformed according to the cluster analysis conducted by Collins and Read (1990). Scores for Close and Depend scales were averaged with one another and then the Anxiety score was subtracted to form the secure attachment and anxious attachment continuum. For avoidant scores for all three scales were added together.

There are three hypotheses that were tested by this study.

1. Participants who scored high on secure attachment will score higher on decentering than will participants who scored low on secure attachment.

2. Participants who scored high on avoidant attachment will score lower on decentering than will participants who scored low on avoidant attachment.

3. Married individuals and individuals in a committed relationship will score higher in decentering than will single individuals.

Method

Participants

The participants of the study are 48 volunteers whose data were previously collected in An Exploration of Object Relations and the Early Working Alliance in a University Clinic Sample, a dissertation by Kristin M. Niemeyer (2004). The volunteers were therapy clients at the University of North Texas; they consisted of 31 women and 17 men. At the time of this collection as reported by Niemeyer (2004), the participants’ age ranged from 19 to 70 years with
a mean age of 32 years (SD=13.37). The participants were predominantly Caucasian. Seventy-three percent reported they were Caucasian, 8.3% Black, 6.3% Asian or Pacific Islander, 4.2% Hispanic, and 8.3% “Other”. The relationship statuses that the participants reported were 46% single, 23% divorced, 19% married, 10% committed relationship, and 2% widowed. Thirty-one percent had children and the remainder did not. At the time of the study, 10% had obtained masters’ degrees, 13% obtained bachelors’ degrees, 71% completed some college, 2% completed high school or obtained a GED, and 4% completed 10th grade. Twenty-three percent reported that they were full time students, 21% were employed part time, 15% employed full time or more, 13% unemployed, 13% in school full time and employed part time, 6% retired or disabled, 6% self-employed, and 4% “homemakers” (Niemeyer, 2004).

*Measures*

The client demographic questionnaire from Niemeyer (2004) consisted of questions concerning marital status, age, ethnicity, level of education, previous therapy experience, and physical health.

*Decentering*. Niemeyer (2004) used TAT cards 1, 2, 3BM, 4, 6BM, 7GF, 10, 12M, and 13MF to elicit stories in her study. The instructions of Murray (1943) were used during the administration of the TAT, and are as follows:

I am going to show you some pictures, one at a time, and your task will be to make up a story for each card. In your story be sure to tell what has led up to the event shown in the picture, describe what is happening at the moment, what the characters are feeling and thinking, and then give the outcome. Tell a complete story with a beginning, middle, and end. Do you understand? I will write your
stories verbatim as you tell them. Here’s the first card. (The examiner hands the picture to the client).

After the TAT was administered, the records were transcribed and reorganized by picture to facilitate ease of coding (Niemeyer, 2004). Two scorers took part in practice sessions using the Scoring Manual for Interpersonal Decentering (Feffer, Leeper, Dobbs, & Jenkins, in press). After training, scorers scored the stories independently of each other. Scorers then met to compare scores and resolve differences with discussion, following the procedure used by Niemeyer (2004) for her chosen scoring system. The scoring categories from Feffer et al. (in press) for the decentering scoring system are as follows:

Category 1: Undifferentiated relationship. Both characters involved in the relationship are described as (a) alike in some way, or (b) being engaged in similar activity.

Category 2: Non-reactive directional relationship. The characters in the relationship are differentiated; the activity of one character directed toward the other evokes no reaction from the other.

Category 3: Reactive directional relationship. The characters in the relationship are differentiated; the activity of one character directed toward the other evokes a reaction from the other, which (a) is not explicitly directed back to the initiator, or (b) is explicitly directed back to the initiator but does not evoke a counter-reaction.

Category 4: Interactive directional relationship. The activity of one character directed toward the other evokes a reaction from the other, which in turn has an effect on the initiator. The two characters may continue to interact back and fourth.
over a period of time and this is still scored as one interaction as long as it remains continuous and between the same characters. Change in time, place, or characters require scoring as a separate interaction.

Category 5: Internalized other, simple representation. One character is represented as an object of the other’s feelings, thoughts, intentions, or conjectures. The former character is represented as the simple object of such internalized state. Whether either character takes overt action toward the other is irrelevant. The person is only the target of the character’s needs and actions, without distinguishing features.

Category 6: Internalized other, surface characteristics. One character is represented as an object of the other’s feelings, thoughts, intentions, or conjectures. The former character is elaborated in terms of such external attributes as location, action, or descriptive qualities. The person has superficial features that affect response, characteristics that intrude on the main character.

Category 7: Internalized other, internalized state. One character is represented as an object of the other’s feelings, thoughts, intentions, or conjectures. The former character is himself/herself represented in terms of an internalized state. For example, the main character perceives that the other person has feelings, too, that have nothing to do with the main character.

Category 8: Internalized others. The object of the internalized state is two other characters. The relationship between these two other characters is such that one is the object of the internalized state of the other.
Category 9: Internalized self-other. The object of the internalized state is the self in an interactive relationship with another. For example, the main character is thinking about own feelings in relation to other character.

The interactions are scored using the criteria and the scores are tallied in the margin, see Table 2.

Attachment. Niemeyer (2004) used the AAS to determine the attachment style of the client. It is an 18 item, self-report measure, scored with a 5-point Likert scale. The values range from “not at all characteristic of me” to “very characteristic of me”. In order to assess attachment the AAS uses three subscales: Close, Depend, and Anxiety. These are the three factors from the original factor analysis by Collins and Read (1990). The internal consistency reliability of Close was .69, of Depend was .75, and of Anxiety was .72. After 2 months, the test retest reliability was .71, .68, and .52 for Close, Depend, and Anxiety, respectively (Collins & Read, 1990).

Procedure

The data used from Niemeyer (2004) for this study is taken from the Time 1 collection point, which took place between the clients’ first and second therapy session. It included the client demographic questionnaire, the TAT, the Adult Attachment Scale (AAS), and several other measures. Clients were invited to participate at their first session with a letter that explained the nature of the study. Clients were also given $15 for their participation. If the clients agreed to the terms of the study, they were later contacted by phone to schedule Time 1. Before any of the assessments proceeded, the participants gave their written consent.

The nature of vulnerable populations (i.e. therapy clients) was also taken into consideration. As determined by the therapists and their supervisors, acutely suicidal individuals or individuals whose risk of suicide might be increased by their participation were excluded. The consent forms also explained that the participation of the client would be discontinued if he or
she experienced distress as a result of participating in the study. No participants were dropped from the study because of increased distress (Niemeyer, 2004).

Results

Descriptive Statistics

All variables were examined for range, mean, standard deviation, kurtosis, modality, and skew using frequency distributions. No significant outliers were found, thus no transformations of the distribution were necessary, and the data is assumed to be normally distributed.

Reliabilities between each of the rater’s scores and the consensus scores were computed based on Spearman’s Rho. The average inter rater reliabilities were consistently above .90. These values are higher than those found in previous studies, which is to be expected due to the use of the elaborated, revised version of the scoring manual from Jenkins et al. (2004).

The data was examined using the three score calculation procedures in order to assess the properties of the construct. The first used only the highest single score from all of the stories, “best effort method”; the second averaged all of the scores across all stories, “overall mean method”; and the third averaged the single highest score from each story, “mean of highest scores method” (Jenkins et al., 2004). Scores found in the current study were compared to those found in existing literature with a similar sample (Jenkins, et. al., 2004). Scores in the current study were significantly higher on “best effort” score, \( t(42)=7.80, p<.001 \), and “mean of highest scores,” \( t(42)=3.66, p=.001 \). There were no significant difference for “overall mean” score, \( t(42)=-0.25, p =.80 \). The current study was also significantly higher on average number of interactions per story, \( t(42)=5.97, p<.001 \), see Table 3.
Niemeyer (2004) found that the AAS results for the sample were significantly lower on Close, \( t(47) = -6.5, p < .001 \) and significantly higher on Anxiety, \( t(47) = 2.16, p < .04 \), compared to existing literature.

The three decentering scores were tested for association with response productivity (average number of words per story and number of interactions) using a Pearson correlation. Only the mean of highest scores correlated significantly with number of interactions and word average, \( r = .62, p < .001 \) and \( r = .39, p = .01 \), respectively; see Table 4.

The three AAS scales and the three attachment styles were assessed for correlations between variables using a Pearson correlation. Close and Depend correlated significantly, \( r = .47, p = .001 \). Avoidant attachment correlated significantly with Close, Depend, and Anxiety, \( r = -.79, p < .001 \), \( r = -.71, p < .001 \), and \( r = -.64, p < .001 \), respectively. These significant negative correlations support the content validity of the measure. The secure and anxious continua scores correlated significantly with Close, Depend, and Anxiety, \( r = .45, p = .001 \), \( r = .46, p = .001 \), and \( r = -.73, p < .001 \), respectively. The significant positive correlation with Close and Depend and the strong negative correlation with Anxiety support the content validity of the measure. Avoidant and the secure and anxious continua scores did not correlate, which is evidence of their discriminant validity; see Table 5.

In order to detect possible confounding associations among the variables, Pearson correlations were calculated for the demographics, Decentering TAT scoring methods, the AAS scales, and the attachment styles. Niemeyer had recoded ethnicity so that the participants were either Caucasian or Non-Caucasian because of the lack of Non-Caucasian participants. Confounding variables were detected. Depend significantly correlated with education, \( r = -.33, p = .03 \). Those participants who were married or in a committed relationship had significantly
lower Anxiety scores than those participants who were single, \( r = -.36, p = .02 \). Those participants who had a higher number of children had significantly lower Anxiety scores than those participants who had a fewer number of or no children, \( r = -.31, p = .03 \). Those participants who identified themselves as Caucasian had significantly higher Avoidant scores than those participants who identified themselves as Non-Caucasian, \( r = .30, p = .04 \). Those participants who were married or in a committed relationship had significantly higher Avoidant scores than those participants who were single, \( r = .31, p = .04 \).

Independent samples t-tests were run to determine the relationship between the three Decentering TAT scoring methods and the demographic variables of gender and ethnicity. No significant relationships were found between the three Decentering TAT scoring methods and gender and ethnicity.

Another independent samples t test was run to determine the relationship between AAS scales, attachment styles, and the demographic variables of gender, ethnicity, and marital status. Four significant relationships were found with AAS scales and attachment styles. Single participants had significantly higher scores on the Anxiety subscale than married participants and participants in a committed relationship, \( M = 18.91, 15.16 \), respectively, \( t(46) = 2.58, p = .013 \). Married participants and participants in a committed relationship had significantly higher mean scores on the Avoidant style than single participants, \( M = -49.76, -56.39 \), respectively, \( t(46) = -2.18, p = .035 \). Non-Caucasian participants, \( M = 18.69 \), had significantly higher scores on the Close subscale than did Caucasian participants, \( M = 15.37, t(42) = 2.55, p = .014 \). Caucasian participants, \( M = -50.94 \), had significantly higher scores on the Avoidant style than did Non-Caucasian participants, \( M = -58.31, t(46) = -2.15, p = .037 \).

*Hypotheses Testing*
In order to examine the first two hypotheses, associations between all three Decentering TAT scoring methods and the attachment styles were analyzed using a Pearson correlation. The Pearson correlation was chosen because the scatter plots did not reveal any fan-shaped or curvilinear patterns.

1. It was hypothesized that participants who scored high on secure attachment would score higher on decentering than would participants who scored low on secure attachment. No significant relationships were found, see Table 6.

2. It was hypothesized that participants who scored high on avoidant attachment would score lower on decentering than would participants who scored low on avoidant attachment. No significant relationships were found, see Table 6.

For the third hypothesis that married individuals will score higher in decentering than will single individuals, marital status had been recoded by Niemeyer so that married individuals and individuals currently in committed relationships were combined because of the small number of married individuals.

3. It was hypothesized that married individuals and individuals in a committed relationship would score higher in decentering than would single individuals. This hypothesis was tested using an independent samples t-test, which was found nonsignificant for all three decentering scores: best effort score, t(41)=.05, p=.96, mean of highest scores, t(41)=.72, p=.48, and overall mean, t(41)=.42, p=.67.

Exploratory Analyses

Because the hypotheses of this study are not supported, alternate hypotheses and exploratory analyses were utilized to explain the null findings.
Scatter plots were computed in order to choose the best correlation to run for the first two hypotheses. During these analyses it was noted that on several categories there were plot differences in association between men and women. The three Decentering TAT scoring methods, AAS scales, and the attachment styles were correlated separately by gender in order to understand if the differences between men and women were significant. The only significant correlations were for men, between along the mean of all scores with Anxiety and the secure and anxious continua scores, $r=-.67$, $p=.009$, $r=.60$, $p=.025$, respectively, see Table 7.

Discussion

While the hypotheses of this study were not supported, there were some important findings within the exploratory analyses that may be beneficial to future research. The two correlational hypotheses are discussed together to facilitate the ease in discussing effect size.

The first hypothesis stated that participants who scored high on secure attachment will score higher on decentering than will participants who scored low on secure attachment, and the second hypothesis stated that participants who scored high on avoidant attachment will score lower on decentering than will participants who scored low on avoidant attachment. These two hypotheses produced non significant correlations, however the correlations do reveal some modest effect sizes. The small positive effect size for Depend with all three Decentering TAT scoring methods, the small positive effect size for Close with two Decentering TAT scoring methods, the small negative effect size for Avoidant with two Decentering TAT scoring methods, the small positive effect size for secure and anxious continua scores with one Decentering TAT scoring method, and the medium positive effect size for secure and anxious continua scores with one Decentering TAT scoring method display an effect that does coincide
with the hypothesized relationships. Perhaps a larger sample size would have a more significant outcome for these variables.

The third hypothesis stated that married individuals and individuals in a committed relationship will score higher in decentering than will single individuals, but the t values were not significant. The marital status of the participants may not have been the most effective variable for this hypothesis because of the situation-specific nature of decentering. In general, most people do not have the same level of interpersonal interaction within a marital status category as within some other kinds of relationships. Decentering can also occur with a variety of relationship types, such as work, friendship, and family. A better comparison variable with decentering may be the quality of social relationships or relationship satisfaction.

Because the hypotheses of this study are not supported, alternate hypotheses may be utilized to explain the null findings. Some exploratory analyses were conducted to try to explain the null findings. The lack of significance for the first two hypotheses led to follow up correlations on the plot differences between men and women. For men, the correlations of the mean of all scores with Anxiety and the secure and anxious continua scores were significant, while the analyses with women yielded only a few non significant correlations with small effect sizes. The positive correlation with the secure and anxious continua scores and the negative correlation with Anxiety coincide with the prediction for the first hypothesis with the mean of all scores calculation.

An independent samples t test was ran to determine the relationship between AAS scales, attachment styles, and the demographic variables of gender, ethnicity, and marital status had four significant relationships. Single participants had significantly higher mean scores on the Anxiety subscale than married participants and participants in a committed relationship, married
participants and participants in a committed relationship had significantly higher mean scores on the Avoidant style than single participants. Married participants or participants in a committed relationship may have lower mean scores on Anxiety because they use their partners to cope with anxiety. Married participants or participants in a committed relationship may have higher mean scores on Avoidant because people who have lack an attachment figure could seek an attachment from a relationship. Non-Caucasian participants had significantly higher mean scores on the Close subscale than did Caucasian participants, and Caucasian participants had significantly higher mean scores on the Avoidant style than did Non-Caucasian participants. It is unclear why these mean scores are significantly different. It is not appropriate to speculate on cultural reasons because the Non Caucasian variable is culturally heterogeneous.

This study was plagued by many weaknesses brought on by numerous factors. The sample size was not large enough to generalize the results confidently, and the participants were all volunteers who were paid for their time, which effects the interpretation of the results in comparison to unpaid participants or participants who completed these psychological evaluations as part of their therapy sessions. There also was a disproportionate amount of participants who were women, single, or Caucasian, which required the data to be recalculated into a less specific variable. The new measures for the attachment scales were not previously used, thus there were no previous similar studies with which to compare means. The correlations for men are also burdened with a small sample size of 14.

There are many recommendations for future studies. The analyses between AAS scales, attachment styles, and Decentering TAT scoring methods should be rerun with a larger, more representative sample size to replicate effect sizes and establish possible significance. Future studies should also run a correlation between men along the mean of all scores with Anxiety and
the secure and anxious continua scores to ensure the result is valid with a larger sample of men. The significantly correlated values for the AAS scales and attachment styles with education, marital status, number of children, and ethnicity should also be rerun with a more representative sample. The significant t values for the AAS scales and attachment styles with marital status and ethnicity should also be rerun with a more representative sample.

The significant findings within the exploratory analyses and the moderate effect sizes between decentering and attachment will be beneficial to future research. This study has provided a path for future researchers to follow in order to better comprehend the Decentering TAT scores and the AAS scores. This knowledge could lead to more effective use of both measures in practice.
References


*Developmental Psychology, 28*(5), 759-775.


Table 1

Interpersonal Decentering Scoring Categories (Feffer, 1968)

Scored once for each interaction segment (same characters, same time) contained in the story.

1. Undifferentiated relationship: “They like sports.”

2. Non-reactive directional relationship:
   “She gives him food.”

3. Reactive directional relationship:
   “She gives him food which he appreciates.”

4. Interactive directional relationship:
   “She gives him food that he likes. She is glad.”

5. Internalized other, simple representation:
   “He plans on telling her later.”

6. Internalized other, surface characteristics:
   “He plans on telling her how she looks.”

7. Internalized other, internalized state:
   “He plans on telling her when she feels better.”

8. Internalized others:
   “He plans on telling her that Bill likes her.”

9. Internalized self-other:
   “He felt that he was wrong in telling her that.”
Table 2

Two Examples of Decentering Scoring

Score  Card 2:  There's a young woman who has a crush on the farmer guy -- the guy who's working. She pretends not to notice him. She's well educated because she has books and pretends not to be in love with him, but she is.// They had a secret affair in the past where they met in the barn or house and had a romantic encounter.// The other woman is the mother and doesn't approve that they're in love and has to watch very closely because she might suspect that they're in love, and she doesn't approve.// And eventually they'll run away together, and she'll admit her love for him and they will be happy.

Highest score = 9  Interaction Units = 4  Average = 27/4 = 6.75

Card 2.  This lady decided to go off to college and leave her family.// Then she finds out that her mother is pregnant and she can't decide on whether to go to college or not because she thinks she needs to stay and help her mother on the farm.// Her mother reassures her that everything will be okay on the farm.// So she ends up going to college and becoming a teacher. Right now she's feeling confused about her obligations.

Highest score = 9  Interaction Units = 3  Average = 16/3 = 5.33

Note.  Interaction units are demarcated by double slashes indicating changes in time, place, or person(s). Underlined text indicates the phrase within each interaction unit that determines its decentering score. The first story is unusually repetitive; each of the first three interaction units has two repetitions of the same scorable material, which does not change its score. The last segment of the second story has no interaction.
Table 3

Mean and Standard Deviation of Response Productivity and Decentering Scores

<table>
<thead>
<tr>
<th></th>
<th>Current Study</th>
<th>Jenkins, et al. (2004) Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Interaction average</td>
<td>2.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Best Effort</td>
<td>8.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Mean of highest scores</td>
<td>5.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>3.8</td>
<td>1.1</td>
</tr>
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</table>

Note: Pearson’s correlation coefficients.
Table 4

*Intercorrelation of Response Productivity and Decentering Scores*

<table>
<thead>
<tr>
<th></th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Word average</td>
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<td></td>
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<td></td>
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<tr>
<td>2. Interaction average</td>
<td>.84*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Best Effort</td>
<td>.02</td>
<td>.18</td>
<td>--</td>
<td></td>
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<tr>
<td>4. Mean of highest scores</td>
<td>.39*</td>
<td>.62**</td>
<td>.56**</td>
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<tr>
<td>5. Overall Mean</td>
<td>.17</td>
<td>.27</td>
<td>.53**</td>
<td>.77**</td>
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</tbody>
</table>

* p = .01. ** p < .001.

*Note:* Pearson’s correlation coefficients.
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Close</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Depend</td>
<td>.47*</td>
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<td></td>
<td></td>
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<tr>
<td>3. Anxiety</td>
<td>.20</td>
<td>.13</td>
<td>--</td>
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<td></td>
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<tr>
<td>4. Avoidant</td>
<td>-.79*</td>
<td>-.71*</td>
<td>-.64*</td>
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</tr>
<tr>
<td>5. Secure vs. Anxious</td>
<td>.45*</td>
<td>.46*</td>
<td>-.73*</td>
<td>-.06</td>
<td>--</td>
</tr>
</tbody>
</table>

* p ≤ .001.

Note: Pearson’s correlation coefficients.
Table 6

Correlation of AAS scales and Attachment styles with Decentering Scores

<table>
<thead>
<tr>
<th>Attachment Style</th>
<th>Best Effort</th>
<th>Mean of Highest Scores</th>
<th>Overall Mean</th>
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<tbody>
<tr>
<td>Close</td>
<td>.10</td>
<td>.18</td>
<td>.15</td>
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<tr>
<td>Depend</td>
<td>.16</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.05</td>
<td>-.00</td>
<td>-.08</td>
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<tr>
<td>Secure vs. Anxious</td>
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<td>.18</td>
<td>.21</td>
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<tr>
<td>Avoidant</td>
<td>-.16</td>
<td>-.15</td>
<td>-.06</td>
</tr>
</tbody>
</table>

*Note:* Spearman’s Rho correlation coefficients.
Table 7

_Correlation of AAS scores and Decentering Scores for Men and Women_

<table>
<thead>
<tr>
<th></th>
<th>Close</th>
<th>Depend</th>
<th>Anxiety</th>
<th>Secure vs. Anxious</th>
<th>Avoidant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>W</td>
<td>M</td>
<td>W</td>
<td>M</td>
</tr>
<tr>
<td>Word average</td>
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<td>-.14</td>
<td>.20</td>
<td>-.02</td>
</tr>
<tr>
<td>Interaction average</td>
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<td>.02</td>
<td>-.13</td>
<td>.18</td>
<td>.21</td>
</tr>
<tr>
<td>Best Effort</td>
<td>--</td>
<td>-.04</td>
<td>--</td>
<td>.14</td>
<td>--</td>
</tr>
<tr>
<td>Mean of highest scores</td>
<td>.43</td>
<td>.03</td>
<td>.14</td>
<td>.23</td>
<td>-.29</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>.03</td>
<td>.06</td>
<td>-.12</td>
<td>.28</td>
<td>-.67**</td>
</tr>
</tbody>
</table>

* p = .025. ** p = .009.

*Note:* Pearson’s correlation coefficients. Best effort had no variance for men.