

MEASURING NARCISSISTIC COGNITIONS IN RESPONSE TO RELATIONSHIP THREAT
USING ARTICULATED THOUGHTS IN SIMULATED SITUATIONS

by

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A Thesis Presented to the
FACULTY OF THE USC GRADUATE SCHOOL
UNIVERSITY OF SOUTHERN CALIFORNIA
In Partial Fulfillment of the
Requirements for the Degree
MASTER OF ARTS
(PSYCHOLOGY)

May 2011

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Abstract

Prior studies document that within the domain of romantic relationships dispositional narcissism can be associated with relationship damaging behaviors such as game-playing tendencies (Campbell, Foster & Finkel, 2002) but also with self-reports of relationship preserving behaviors such as resistance to doubts about a partner's lack of commitment (Foster & Campbell, 2005). The present study investigated the association between dispositional narcissism and responses to escalating levels of threatening information regarding partner infidelity in a novel manner using the Articulated Thoughts in Simulated Situations (ATSS) paradigm. The ATSS is a think-aloud method that captures individuals' thought content as a structured, experimenter-controlled, hypothetical situation unfolds. One hundred sixty-two undergraduate students verbalized their thoughts in response to three scenarios, in which their romantic partner interacted with an individual of the opposite sex. Participant responses were content-analyzed for the presence of verbal aggression, anger, distress, doubts, positive self-statements and desire for relationship dissolution. Results indicated that level of narcissism was not related to verbalizations of any of the abovementioned codes in the neutral scenario ("no threat" condition); that is, in the absence of threat, high narcissists could not be differentiated from low narcissists based on their articulated cognitions. In the low threat condition, narcissism positively correlated with verbal aggression. In the high threat condition, narcissism positively correlated with verbal aggression, positive self-statements and desire for relationship dissolution but negatively correlated with self-reported distress. The results of the current study suggest that within non-clinical samples, relatively narcissistic persons are more strongly reactive to threat in a manner that is consistent with the clinical psychology literature on narcissistic rage and aggression (Kernberg, 1975). Stated differently, in the current study the hallmark of narcissism in the presence of threat was verbal aggression. This suggests that high narcissists are not more

emotionally responsive to threat than low narcissists; instead they seem to be more behaviorally responsive in a manner that allows them to retaliate against the source of threat. These findings also further support the hypothesis that manifestations of narcissistic behavior vary as a function of the situation individuals are in.

Chapter 1: Introduction

Personality theories posit that individuals have certain predispositions that are fairly stable across situations. This suggests that an individual's behavior will be at least somewhat predictable to the extent that the personality traits he/she possesses are known. In support of these theories, research shows that certain personality traits (usually assessed using questionnaires) tend to be fairly stable and can be linked with specific behaviors. For example, psychopathic traits are frequently associated with violent criminal behaviors in adults (e.g., Porter & Porter, 2006; Stone, 2007) and with aggression and delinquency in adolescents (e.g., Edens, Skeem, Cruise & Cauffman, 2001; Myers, Burket, Harris, 1995).

Personality, however, does not tell the full story of human behavior. Although traits might be useful in predicting an individual's dispositions towards acting in a certain manner, behavior is also a function of the characteristics of the environment. In fact, situational factors are so important that a plethora of research documents their powerful influence on both prosocial and antisocial behavioral domains ranging from administering electric shock to strangers (Milgram, 1963), police arrest decisions (Smith & Visher, 1981) and employee theft (Greenberg, 2002) to drinking alcohol (Ludwig et al., 1977), consumer behavior (Belk, 1975), and helping strangers (Darley & Batson, 1973), to name just a few. Thus, behavior can be fully understood only if the context the individual is in is taken into account.

Walter Mischel (1968), having systematically examined the evidence for the consistency of personality, also supports the notion that individuals' behavior, far from being consistent and stable across situations, is importantly a function of the specific circumstances. He suggests that behavior can best be viewed as being governed by if-then rules such that certain behavior will occur only when specific circumstances arise. An example of an "if-then" rule would be: "If individual X is in a threatening situation, he/she acts aggressively. If individual X is in a neutral

situation, he/she acts gregariously.” This conceptualization of personality has the added benefit of being able to account for the widely variable and even contradictory behaviors that an individual may display.

Personality psychology, however, does not aim to study the influence of the situation on the manifestation of personality. Thus, certain domains have only fairly recently been examined from the perspective of social psychology, which emphasizes the interaction of an individual's characteristics with the influence of the situation to produce behavior. Narcissistic personality is one such domain, in which cross-situational variability is especially pertinent. Dispositional narcissism is a personality construct that embodies a set of traits that falls on a continuum within the normal population. The hallmarks of high levels of this personality type are self-absorption, inflated self-beliefs based on exaggerated accomplishments, perceived superiority to others, lack of empathy, and an increased need for power (Campbell, 1999), which are thought to be evident across multiple interpersonal situations. In the psychological literature, individuals are usually classified as being high or low on this set of traits, with extreme manifestation of the characteristics in question being diagnosed as a personality disorder (Narcissistic Personality Disorder) (APA, 2000). It is important to note here that personality disorders in general and narcissistic personality disorder in particular are defined as "an enduring pattern of [deviant] inner experience and behavior" by the DSM-IV-TR (2000). Thus, due to its roots in clinical psychology, which assumes personality disorders to be stable and maladaptive across situations, narcissism is frequently viewed as a form of situationally inappropriate, inflexible behavior.

However, any adequate conceptualization of narcissism must not overlook the variability in narcissistic behaviors, which requires incorporating the interaction between features of the individual and the social situation. For example, studies suggest that some of the characteristics of narcissism (namely, positive self-views) manifest only in certain domains such as success, status,

intelligence and physical appearance and not others such as caring and close intimate relationships (Gabriel, Critelli, & Ee, 1994; Campbell & Foster, 2007). In these domains, narcissists strategically maintain their positive and egocentric self-concept via self-enhancement and aggressive reactions to perceived ego-threats (Campbell, Reeder & Sedikides, 2000; Stucke & Sporer, 2002; Rhodewalt & Morf, 1998). In particular, individuals high in narcissism compared to those low in narcissism have been found to both favorably compare themselves to others (even at the cost of belittling them) and to diminish the importance of tasks on which they believe they performed poorly (Campbell, Reeder & Sedikides, 2000). This line of research suggests that high narcissists are likely to verbalize more self-enhancing statements but only in situations that are perceived as threatening and that are relevant to their self-concept.

Furthermore, the highly positive self-view of narcissists correlate with heightened sensitivity to criticism in the form of negative evaluations or social rejection because of their threatening effect on self-perceptions of superiority (Martinez et al, 2008; Twenge & Campbell, 2003). Thus, in evaluative situations in which narcissists are criticized, they may be more likely to act aggressively towards the source of the evaluation when given the opportunity to do so (Bushman & Baumeister, 1998). This finding relates to the notion of threatened egotism, which refers to defending highly positive views of the self when their veracity is challenged; in order to preserve highly favorable self-perceptions, narcissists attack those who evaluate them negatively. This type of behavioral response suggests the following “if-then” narcissistic rule of behavior: “If faced with an ego-threatening situation, aggress against the source of the ego-threat as a means of preserving positive self-views.”

However, there has been some suggestion that more narcissistic persons may not always be more sensitive to socially threatening information. In a study on narcissism and romantic relationships, Foster and Campbell (2005) demonstrated that, in an ambiguous situation implying

a lack of commitment of one's partner, individuals high in narcissism were resistant to doubts about the feelings of their romantic partners. In particular, high narcissists compared to low narcissists reported greater difficulty listing reasons why their current dating partner might not be committed to them and subsequently reported lower levels of: 1) desire to accept a date with another potential dating partner, 2) aversion to partner dependence and deception, and 3) lack of commitment. However, when participants were required to list reasons why current dating partners were committed to them, the effect was reversed. In this case, narcissists were more likely than non-narcissists to display relationship dysfunction and were more likely to accept a date with another potential partner. More relevant here, this study seems to suggest that the same personality trait (narcissism) can be associated with resistance to perceiving social threats to a relationship and with increased commitment when possible threats are made salient rather than with aggression.

The findings of Foster and Campbell (2005) with respect to resistance to doubts about romantic partners directly contradict the clinical literature on narcissism, which implies that narcissistic rage and increased aggression are the typical response to rejection by others (Kernberg, 1975). Kernberg (1975) also proposes that narcissists tend to be extremely sensitive to and to retaliate against even slight criticism or insult. This would then suggest that even a slight indication of lack of commitment (which can be conceptualized as an ego threat) should elicit aggressive retaliation. In other words, narcissists should be more sensitive to threat of varying intensity than non-narcissists. It is thus possible that the task of listing reasons why their current dating partner might not be committed to them was not engaging and realistic enough to present participants with sufficient social threat to act aggressively.

Several limitations of the research on narcissism should be noted. First, most studies in the field utilize questionnaire measures. Although questionnaires provide useful information that

is easy to analyze, they limit the variability of participant responses by allowing only very specific, predetermined answers to items to be endorsed. Furthermore, research suggests that very different information is elicited based on open versus closed-ended question formats. For example, in a study on parental values, 61.5% of parents chose “thinking for themselves” as the most important quality their children could possess for the future when this answer was provided as part of a list. However, only 4.6% of parents articulated a similar answer in an open response format (Schuman & Presser, 1981). It is thus evident that answers to questionnaires are strongly influenced by question wording and the response format, so much so that the information elicited can differ tremendously (Schwarz, 1999). Furthermore, with the exception of rare behaviors and those of high significance, most frequent behaviors and emotional reactions are unlikely to stand out in memory. When asking about these via questionnaires, it is likely that we are instead tapping into attitudes and generic representations that might lack nuance (Schwarz, 1999). Thus when trying to evaluate thoughts and behaviors related to a *specific* situation, it would be advisable to use both an open response format and a more realistic task that captures ongoing thoughts and feelings as they occur. This can be achieved by asking participants to imagine that they are part of an ongoing situation that is presented to them via audio. The current study does exactly this by using a simulated situation paradigm to examine the variability in narcissistic thoughts and feelings in response to three scenarios, which vary in their level of threat. This is done in order to achieve a better understanding of the construct and its variable manifestations with respect to threat in the relationship realm.

In summary, the interaction of characteristics of the situation and narcissistic traits has generally not been well examined in the relationship domain by systematically manipulating experimental conditions within the same study. Various studies provide insight into the correlates of narcissism, but the subtleties of how the trait predicts responses to varying degrees of

relationship threat have been somewhat underappreciated. Thus, it is likely that there might be more situational variability in narcissistic responses (emotional and behavioral) than meets the eye.

The Present Study

Given these considerations, the present study seeks to examine the variability in the reactions of narcissists in response to uncertain versus more obvious threat of partner infidelity using the Articulated Thoughts in Simulated Situations (ATSS) paradigm, which is a think-aloud method that captures individuals' thought content as a structured, experimenter-controlled situation unfolds (Davison, Robins, & Johnson, 1983). The domain of romantic relationships was chosen for the scenarios because it is a salient part of life that most individuals (including undergraduate students) have experience with and it lends itself well to being manipulated to be threatening in various degrees. Each participant was exposed to three scenarios varying in the degree of perceived threat in which his/her romantic partner is interacting with an individual of the opposite sex (please see Appendix B for scenario scripts). He/she was then asked to articulate his/her ongoing thoughts in reaction to brief segments of the scenario. The purpose of this manipulation is to assess and compare the verbalized thoughts and reactions to three levels of infidelity threat generated by individuals who vary on their level of narcissism in the normal population. Each participant's verbalizations were examined for the presence of the following coding categories: 1) verbal aggression; 2) general anger; 3) distress/anxiety; 4) doubts about the relationship or partner's commitment; 5) positive self-statements; 6) desire to end the relationship (please see Appendix D for the coding procedures used). Because the high threat manipulation is intended to be threatening to areas that are particularly important for narcissists (being admired by others, having power and autonomy in a relationship) while the low threat manipulation is intended to be vague and to elicit overconfidence, verbalized cognitions and emotions were

expected to vary systematically in the three threat conditions, as outlined in the specific hypotheses that follow:

(Note: While the author uses the terms “narcissist” and “high narcissist” interchangeably, the participants in this experiment were not given clinical assessments that diagnose the presence of Narcissistic Personality Disorder. Rather, they completed the Narcissistic Personality Inventory (NPI), which measures level of non-clinical narcissistic personality traits. Therefore, in this study “narcissists/high narcissists” refers to subjects with high NPI scores.)

Main hypothesis: Narcissism will correlate in a different manner with verbal aggression, general anger, distress/anxiety, positive self-statements, doubts and desire to end the relationship for the three different threat levels as follows:

a) In the neutral scenario (significant other is talking in an unthreatening manner to a member of the opposite sex, who is in a committed relationship and is also a good friend of the participant) individuals will react similarly to each other regardless of their level of narcissism because an ego threat is not present. In other words, a statistically significant correlation is not predicted to be present between level of narcissism and the amount of articulated verbal aggression, general anger, distress/anxiety, doubts, positive self-statements and desire to end the relationship in the neutral scenario.

b) In the low threat scenario (significant other is talking to a classmate of the opposite sex), an ambiguous possibility of infidelity threat is present. It is expected that narcissists although will not perceive the situation as ego threatening and will thus be immune to anger, doubts about the relationship and relationship dissolution (while non-narcissists will not be). As a result, level of narcissism will correlate with verbalized emotions and cognitions in the following manner:

- i. Level of narcissism will correlate positively with positive self-statements.

ii. Level of narcissism will correlate negatively with general anger, distress/anxiety, doubts, and desire to end the relationship.

iii. A significant correlation between level of narcissism and verbal aggression is not predicted.

c) In the high threat scenario (significant other is talking to a former girlfriend/boyfriend in a provocative manner), an explicit ego threat is present that is expected to be especially provoking for narcissists. Thus, level of narcissism will correlate with verbalized emotions and cognitions in the following manner:

i. Level of narcissism will correlate positively with articulated verbal aggression, general anger, doubts, positive self-statements, and desire to end the relationship.

ii. Level of narcissism will correlate negatively with distress/anxiety.

iii. A significant correlation between level of narcissism and articulated doubts is not predicted.

Chapter 2: Research Design and Methods

Overview: Participants were recruited from the undergraduate psychology subject pool at USC.¹ After obtaining informed consent, participants were given a measure of narcissism to complete. Next, the Articulated Thoughts in Simulated Situations paradigm was administered followed by a manipulation check and relationship history questions. The obtained data were analyzed using nonparametric correlations and other techniques to determine whether narcissism is associated with reactions to a threat of infidelity.

Participants

Participants for the current study were recruited from the undergraduate psychology subject pool at the University of Southern California. The only exclusion criterion (due to the nature of the research and the scripts of the simulated situations) was non-heterosexual orientation. In return for their participation, students received compensation in the form of extra course credit. Participants were also entered for a lottery to receive one of three gift card prizes.

The analyses are based on 162 individuals, who completed the study. Of these participants, 119 (73.5%) were female and 43 (26.5%) were male, indicating an unequal gender ratio. This reflects the gender distribution of the undergraduates who completed the prescreen procedure as part of the psychology subject pool at USC (74.6% female; 20.4% male). The sample was ethnically and culturally diverse as it reflects the ethnic distribution of the student population at USC: 36.4% Caucasian; 30.8% Asian/Pacific Islander; 10.5% African American; 9.9% Hispanic, and 12.4% of mixed/other heritage. All participants reported being proficient in English when asked verbally and were able to satisfactorily complete the think aloud procedure in English. (For sample descriptive statistics, please see Appendix A).

¹ Students receive extra credit in psychology courses in exchange for their participation in psychological studies.

As expected, the sample was age restricted with most participants falling in the approximate range of 18 to 22 years of age. Eight participants (4.93%) reported being older than 22 years of age. These participants were retained in the analyses, as no a priori reasons to exclude them exist.

Measures

Narcissistic Personality Measure. Narcissism was measured using the Narcissistic Personality Inventory (NPI) (Raskin & Hall, 1979). The NPI is a forty-item, forced-choice questionnaire, yielding a score in the range of zero to forty (0 – 40). In the current study, narcissism scores were used as a continuous variable. The NPI is the most commonly used measure of narcissistic personality traits within the normal population and the measure has been found to have favorable psychometric properties. A study by Raskin and Terry (1988) using principal components analysis of the NPI responses of over 1000 individuals provides evidence for a general construct of narcissism as well as seven first-order components, identified as: Authority, Exhibitionism, Superiority, Vanity, Exploitativeness, Entitlement, and Self-Sufficiency. A study by Soyer, Rovenpor, Kopelman, Mullins and Watson (2001) of the construct validity of four narcissism measures yields an internal reliability value of .83 for the NPI and also provides evidence for good convergent and divergent validity.

Articulated Thoughts in Simulated Situation. The ATSS was used to collect data about cognitions (Davison, Robins, & Johnson, 1983). The paradigm has been shown to have good face validity, construct validity, discriminant validity, and inter-rater reliability (for a review, see Davison, Vogel, & Coffman, 1997). The thoughts generated during the ATSS were coded for content that pertains to reactions to partner infidelity and relationship doubts. The six coding dimensions are: 1) verbal aggression and hostile intent (including derogatory statements about partner/other individual); 2) expression of general anger (including frustration and resentment); 3)

distress/anxiety; 4) doubts about relationship and/or partner commitment; 5) positive/self-enhancing statements; 6) decision to end the current relationship.

The audio recordings of the participants' articulated thoughts were transcribed and two independent coders, who were blind to participants' NPI scores, coded each participant's verbalizations. Six coders were trained to ensure adequate reliability and coding meetings were held periodically to protect against coder drift. Each 30-second segment of participants' verbalizations was coded for the presence and intensity of the aforementioned coding categories using a four-point Likert scale [0 – not at all (complete absence of code); 1 – slightly/somewhat (low presence of code); 2 – moderately (moderate presence of code); 3 – very (high presence of code)]. Scores were calculated by averaging the two coders' ratings on each variable. Summary scores were also calculated by adding up the averaged ratings across all the segments. The mean score was retained even when the scores given by each coder differed by more than 1 or 2 points due to the overall high reliability of the coders.

Procedure

The study consisted of a single testing session. When participants arrived at the lab, they were greeted by an experimenter and provided with an overview of the study. They were told that they would be participating in a study of personality, dating relationships, and thoughts associated with them. Participants were given information sheets to read (informed consent was not required because the study was deemed exempt by the USC institutional review board) and asked if they were still interested in participating in the study. All of the individuals that came into the lab agreed to participate and were asked to complete a set of questionnaires (including the NPI and demographic information questions). Participants were then given instructions (presented both in audio and written form) that have become standard in the use of the ATSS procedure (cf. Davison et al., 1997):

You are participating in a study of people's thoughts and feelings in situations related to romantic relationships. Often, when people are going about their daily affairs, interacting with others and so forth, they have a kind of internal monologue going through their heads, a constant stream of thoughts or feelings, which reflect their reactions to something, which is happening.

What we'd like you to do is to play a part in a couple of situations that we have taped. You will listen to audio recordings of three stories. Please imagine that this situation is unfolding right now and that you are a part of it. Every so often the recording will stop, you will hear a tone, and you will be asked to speak into a microphone for 30 seconds. Simply say out loud whatever is going through your mind. Say as much as you can until you hear another tone. Of course, there are no right or wrong answers, so please just say whatever comes to mind without judging whether it is appropriate or not. The more you can tell us, the better.

Try to imagine as clearly as you can that it is really you in the situation right now. Note that your task is not to speak back to any of the voices on the tape, as though you were having a conversation with one of them. Rather, you should tune in to your own thoughts and say them out loud. Everything that you say will be completely confidential. Your name will not be associated with the recording in any way.

After these instructions, participants practiced the procedure in the presence of an experimenter with a neutral scenario. Participants were given feedback on their performance (e.g. "please try to pretend that you are actually in this situation; try not to say 'would'") and were asked whether they had any questions. The experimenter then left the room and participants proceeded with the three experimental infidelity ATSS scenarios that were matched for their gender. The setting for all three simulated situations is a college party. The neutral scenario depicts a situation in which one's romantic partner is conversing with a member of the opposite sex who is in a relationship and is also a good friend of the participant. The low threat scenario represents an overheard conversation in which one's romantic partner is arranging to meet with a member of the opposite sex, who turns out to be a classmate. It is intentionally meant to be

somewhat ambiguous. In the high threat scenario, an extremely flirtatious conversation is overheard in which one's romantic partner discounts being in a committed relationship. The reader is referred to Appendix B for the scripts of the three scenarios.

When participants finished with the ATSS procedure, they were asked to fill out a short ATSS questionnaire asking about the realism of the situations presented, whether the scenarios were easily imaginable, and how similar their thoughts were to what they believe they would have in real life situations. Participants were also asked whether they had actually experienced any real life situations similar to the simulated ones. They were then thanked, debriefed, and escorted out of the lab.

Chapter 3: Data Analysis and Results

The data analysis was conducted using three broad approaches: 1) data summarization, 2) reliability analyses, and 3) estimation and testing. First, sample characteristics were described (age, sex, ethnicity, SES). (The reader is referred to Appendix A for descriptive tables and graphs). Next, analyses were conducted to evaluate the reliability of the obtained data. Finally, in order to address the three proposed sets of hypotheses, nonparametric correlational and nonparametric analysis of variance approaches were implemented. Friedman's nonparametric repeated measures analysis of variance was conducted in order to evaluate the equality of the mean ranks of the codes in the three threat conditions. The correlational modeling included an analysis of the association between the score on a measure of personality (NPI) and performance on the ATSS.

Reliability Analyses

In order to evaluate the interrater reliability for the six ATSS codes (namely, verbal aggression, general anger, distress/anxiety, doubts, positive self-statements, desire to end the relationship), intraclass correlation coefficients were calculated based on the coding scores obtained from two independent RA coders. ICCs are typically used to assess the consistency of continuous measurements and/or ratings made by two or more observers reporting on the same quantity. Values reported in the tables below are based on the two-way random model (average measures). This model was chosen due to the fact that the two ratings did not come from the same two coders for each participant. The first table reports values using the absolute agreement criterion, while the second, the consistency criterion.

Table 1. Interrater Reliability (ICCs) Based on Absolute Agreement Criterion

Code	Entire Sample (N=149)	Females (N=108)	Males (N=41)
Verbal aggression	0.724	0.695	0.808
General Anger	0.874	0.861	0.912
Distress/Anxiety	0.758	0.756	0.751
Doubts	0.824	0.802	0.884
Positive Self-statements	0.802	0.608	0.882
Desire to End Relationship	0.926	0.931	0.909

Table 2. Interrater Reliability (ICCs) Based on Consistency Criterion

Code	Entire Sample (N=149)	Females (N=108)	Males (N=41)
Verbal aggression	0.725	0.695	0.814
General Anger	0.876	0.863	0.915
Distress/Anxiety	0.757	0.756	0.751
Doubts	0.831	0.806	0.900
Positive Self-statements	0.802	0.608	0.882
Desire to End Relationship	0.926	0.932	0.909

The results of the reliability analysis indicate that all six of the coding categories have an inter-rater reliability over 0.72 for the entire sample (N= 149), over 0.60 for females (N=108) and over 0.75 for males (N=41). This suggests that the 6 coding categories are sufficiently reliable to allow for them to be used as variables in further analyses. The lack of noticeable differences between the ICC values based on absolute agreement and those based on consistency indicates that the coding disagreements were unsystematic (i.e., there was no main effect of coder).

Evaluation of Normality

The normality assumption was evaluated for the seven variables in the study (namely, verbal aggression, general anger, distress/anxiety, doubts, positive self-statements, desire to end the relationship, and narcissism). This was done on the basis of the values for skewness and

kurtosis as well as tests of normality, histograms and normal probability plots for each of the aforementioned variables.

The results of the evaluation of the normality assumption indicate that none of the seven codes was normally distributed. Skewness and kurtosis were present in the distributions of all seven codes and the Shapiro-Wilk and Kolmogorov-Smirnov tests of normality were statistically significant, indicating that the null hypothesis of normality should be rejected. Visual examination of the histograms also reveals departures from normality. The distributions are neither symmetric, nor bell-shaped; they are instead significantly asymmetrical and positively skewed. Therefore the data were analyzed with non-parametric statistical procedures.

Table 3. Results of Normality Analyses

Code	Skewness	Kurtosis	Shapiro-Wilk	Kolmogorov-Smirnov
Verbal Aggression	2.4	6.55	W=0.67, p<0.001	D=0.27, p<0.001
General Anger	0.74	0.29	W=0.95, p<0.001	D=0.10, p=0.002
Distress/Anxiety	0.6	-0.28	W=0.96, p<0.001	D=0.10, p=0.001
Doubts	0.66	0.12	W=0.96, p<0.001	D=0.08, p=0.024
Positive Self-Statements	6.29	48.08	W=0.39, p<0.001	D=0.31, p<0.001
Desire to End Relationship	1.52	2.22	W=0.77, p<0.001	D=0.27, p<0.001
Narcissism Score	1.52	2.22	W=0.08, p=0.02	D=0.98, p=0.01

Evaluation of the Effect of the Threat Manipulation

First, it was necessary to check whether the three scenarios indeed differed in the threat level they portrayed. This was done by evaluating whether the three scenarios successfully elicited different amounts of verbalized emotions and cognitions in the predicted manner. To address this question, Friedman's nonparametric repeated measures comparison was conducted.

In particular, the mean ranks for the ATSS code scores for each of the three scenarios were compared in order to identify statistically significant differences.

Verbal Aggression: Table 4 summarizes the data for the verbal aggression code in the three scenarios. The results indicate that there is a significant difference in verbal aggression across the three scenarios (neutral, low and high threat), $\chi^2(2) = 59.15$, $p < 0.001$. Inspection of the median values and pairwise Friedman's tests reveal, as hypothesized, an increase in verbal aggression from low threat (Md=1.91) to high threat (Md=2.32). However, contrary to the research hypothesis, there was not a statistically significant difference between the median verbal aggression score in the neutral (Md=1.77) and low threat (Md=1.91) scenarios (see Table 5 below).

Table 4. Descriptive Statistics for Verbal Aggression

	N	Median	Interquartile Range	Minimum	Maximum
Neutral Scenario	149	1.77	0.0-0.0	.00	2.00
Low Threat Scenario	149	1.91	0.0-0.0	.00	5.00
High Threat Scenario	149	2.32	0.0-1.0	.00	6.50

Table 5. Pairwise Friedman's Comparisons for Verbal Aggression

Difference between:	Test Statistic	Adjusted Significance
Neutral – Low Threat	- 0.14	0.671
Neutral – High Threat	-0.54	<0.001
Low – High Threat	-0.40	0.002

General Anger: Table 6 summarizes the data for the anger code in the three scenarios. The results indicate that there was a significant difference among the distributions of general anger in the three scenarios (based on Friedman's test, $\chi^2(2) = 140.94$, $p < 0.001$). Inspection of the median values and pairwise Friedman's tests reveal, as hypothesized, that general anger was lowest in the

neutral scenario (Md=1.42), higher in the low threat scenario (Md=1.88) and the highest in the high threat scenario (Md=2.70) (see Table 7 below).

Table 6. Descriptive Statistics for General Anger

	N	Median	Interquartile Range	Minimum	Maximum
Neutral Scenario	149	1.42	0.0-0.0	.00	9.50
Low Threat Scenario	149	1.88	0.0-3.5	.00	11.00
High Threat Scenario	149	2.70	2.5-7.5	.00	13.00

Table 7. Pairwise Friedman's Comparisons for General Anger

Difference between:	Test Statistic	Adjusted Significance
Neutral – Low Threat	- 0.46	<0.001
Neutral – High Threat	-1.28	<0.001
Low – High Threat	-0.82	<0.001

Distress/Anxiety: Table 8 summarizes the data for the distress/anxiety code in the three scenarios.

The results indicate that there was a significant difference among the distributions of distress/anxiety in the three scenarios (based on Friedman's test, $\chi^2 (2) = 184.35, p < 0.001$).

Inspection of the median values and pairwise Friedman's tests reveal, as hypothesized, that distress/anxiety was lowest in the neutral scenario (Md=1.25), higher in the low threat scenario (Md=2.01) and the highest in the high threat scenario (Md=2.73) (see Table 9 below).

Table 8. Descriptive Statistics for Distress/Anxiety

	N	Median	Interquartile Range	Minimum	Maximum
Neutral Scenario	149	1.25	0.0-0.5	.00	5.00
Low Threat Scenario	149	2.01	0.0-3.5	.00	9.50
High Threat Scenario	149	2.73	2.0-6.5	.00	10.50

Table 9. Pairwise Friedman's Comparisons for Distress/Anxiety

Difference between:	Test Statistic	Adjusted Significance
Neutral – Low Threat	-0.76	<0.001
Neutral – High Threat	-1.48	<0.001
Low – High Threat	-0.72	<0.001

Doubts: Table 10 summarizes the data for the doubts code in the three scenarios. The results indicate that there was a significant difference among the distributions of doubts in the three scenarios (based on Friedman's test, $\chi^2(2) = 253.32, p < 0.001$). Inspection of the median values and pairwise Friedman's tests reveal, as hypothesized, that doubts were lowest in the neutral scenario (Md=1.11), higher in the low threat scenario (Md=1.99) and the highest in the high threat scenario (Md=2.90) (see Table 11 below).

Table 10. Descriptive Statistics for Doubts

	N	Median	Interquartile Range	Minimum	Maximum
Neutral Scenario	149	1.11	0.0-0.5	.00	5.50
Low Threat Scenario	149	1.99	0.5-4.0	.00	11.00
High Threat Scenario	149	2.90	3.6-8.0	.50	11.50

Table 11. Pairwise Friedman's Comparisons for Doubts

Difference between:	Test Statistic	Adjusted Significance
Neutral – Low Threat	-0.88	<0.001
Neutral – High Threat	-1.80	<0.001
Low – High Threat	-0.91	<0.001

Positive Self-Statements: Table 12 summarizes the data for the positive self-statements code in the three scenarios. The results indicate that there was no significant difference among the distributions of positive self-statements in the three scenarios (based on Friedman's test, $\chi^2(2) = 2.84, p = 0.242$). This suggests that the amount of articulated positive self-statements does not differ significantly based on threat level.

Table 12. Descriptive Statistics for Positive Self-Statements

	N	Median	Interquartile Range	Minimum	Maximum
Neutral Scenario	149	1.99	0.0-0.0	.00	5.50
Low Threat Scenario	149	1.96	0.0-0.0	.00	5.00
High Threat Scenario	149	2.05	0.0-0.0	.00	5.00

Decision to End Relationship: Table 13 summarizes the data for the desire to end the relationship code in the three scenarios. The results indicate that there was a significant difference among the distributions of desire to end the relationship in the three scenarios (based on Friedman's test, $\chi^2(2) = 115.32, p < 0.001$). Inspection of the median values and pairwise Friedman's tests reveal that, as hypothesized, more desire to end the relationship was verbalized in the high threat scenario (Md= 2.45) than either the neutral (Md=1.74) or low threat scenario (Md=1.81). However, contrary to the research hypothesis, there was not a difference in the median desire to end the relationship score in the neutral and low threat scenarios (see Table 14 below).

Table 13. Descriptive Statistics for Desire to End Relationship

	N	Median	Interquartile Range	Minimum	Maximum
Neutral Scenario	149	1.74	0.0-0.0	.00	.50
Low Threat Scenario	149	1.81	0.0-0.0	.00	2.00
High Threat Scenario	149	2.45	0.0-1.0	.00	3.50

Table 14. Pairwise Friedman's Comparisons for Desire to End Relationship

Difference between:	Test Statistic	Adjusted Significance
Neutral – Low Threat	- 0.07	1.00
Neutral – High Threat	-0.71	<0.001
Low – High Threat	-0.63	<0.001

Main Effect of Narcissism: In order to determine whether a main effect of narcissism on verbalized emotions and cognitions was present, Spearman correlation coefficients were

calculated between Narcissistic Personality Inventory (NPI) scores and total scores for the six coding categories. Please see Table 15 below for the values of the correlation coefficients.

Table 15. Spearman Correlation Coefficients between NPI and Total Scores for the Six Codes

		Aggression	Anger	Distress	Doubts	Positive Self-Statements	Desire to End Relationship
NPI Score	Spearman's rho	.222**	.156*	-.080	.086	.157*	.194**
	Sig. (1-tailed)	.003	.029	.168	.151	.029	.009
	N	147	147	147	147	147	147
** . Correlation is significant at the 0.01 level (1-tailed).							
* . Correlation is significant at the 0.05 level (1-tailed).							

The results indicate that narcissism is significantly positively correlated with verbal aggression, general anger, positive self-statements, and desire to end the relationship ($\rho=0.19$, $p=0.009$). Narcissism is not significantly correlated with distress/anxiety or with doubts. This suggests that verbal aggression, general anger, positive self-statements and desire to end the relationship tend to increase as narcissism increases, while distress/anxiety and doubts are not related to level of narcissism in the current sample.

Main Hypothesis: Narcissism will display a different pattern of correlations with verbal aggression, general anger, distress/anxiety, positive self-statements, doubts and desire to end the relationship for the three different threat levels.

a) In order to test the hypothesis that in the neutral scenario individuals would react similarly to each other regardless of their level of narcissism, a correlational analysis was conducted. Spearman correlation coefficients were calculated and tested (please see Table 16 below).

Table 16. Spearman Correlation Coefficients for the Neutral Scenario

		Aggression	Anger	Distress	Doubts	Positive Self-Statements	Desire to End Relationship
NPI	Spearman's rho	.127	.094	.059	.121	.144	.000
	Sig. (2-tailed)	.126	.257	.478	.144	.083	1.000
	N	147	147	147	147	147	147

*. Correlation is significant at the 0.05 level (2-tailed).

The results indicate that narcissism is not significantly correlated with any of the variables of interest, namely verbal aggression ($\rho=0.13$ $p=0.126$), general anger ($\rho=0.09$, $p=0.257$), distress/anxiety ($\rho=0.06$, $p=0.478$), doubts ($\rho=0.12$, $p=0.144$), positive self-statements ($\rho=0.14$, $p=0.083$), and desire to end the relationship ($\rho=0.00$, $p=1.00$). This suggests that verbal aggression, general anger, distress/anxiety, doubts positive self-statements and desire to end the relationship are not linearly related to level of narcissism in the current sample.

b) In order to test the hypothesis that in the low threat scenario, narcissism would correlate positively with positive self-statements and negatively with general anger, distress/anxiety, and desire to end the relationship, a Spearman correlational analysis was conducted (please see Table 17 below).

Table 17. Spearman Correlation Coefficients for the Low Threat Scenario

		Aggression	Anger	Distress	Doubts	Positive Self-Statements	Desire to End Relationship
NPI	Spearman's rho	.199*	.091	.040	.107	.105	.152
	Sig. (1-tailed)	.016	.272	.630	.196	.206	.065
	N	147	147	147	147	147	147

*. Correlation is significant at the 0.05 level (2-tailed).

The results indicate that narcissism is significantly positively correlated only with verbal aggression. This suggests that verbal aggression increases as level of narcissism increases while

general anger, distress/anxiety, doubts, positive self-statements and desire to end the relationship are not related systematically to narcissism in the low threat condition.

c) In order to test the hypothesis that in the high threat scenario, narcissism would correlate positively with articulated verbal aggression, general anger, positive self-statements, and desire to end the relationship and negatively with distress/anxiety, a correlational analysis was conducted. Spearman correlation coefficients were calculated and tested (please see Table 18 below).

Table 18. Spearman Correlation Coefficients for the High Threat Scenario

		Aggression	Anger	Distress	Doubts	Positive Self-Statements	Desire to End Relationship
NPI	Spearman's rho	.158*	.130	-.150*	.017	.175*	.187*
	Sig. (1-tailed)	.028	.058	.035	.420	.017	.012
	N	147	147	147	147	147	147
*. Correlation is significant at the 0.05 level (1-tailed).							
**. Correlation is significant at the 0.01 level (1-tailed).							

The results indicate that, under a condition of high threat, narcissism is significantly positively correlated with verbal aggression, positive self-statements and desire to end the relationship and significantly negatively correlated with distress/anxiety. Narcissism is not significantly correlated with general anger or doubts. This suggests that, when threat is high, verbal aggression, positive self-statements and desire to end the relationship increase as level of narcissism increases while distress/anxiety decreases as narcissism increases. General anger and doubts are not related systematically to narcissism in the current sample.

In order to compare the magnitude of the correlations between NPI scores and the six codes in the three threat conditions, correlation differences were computed and tested. The results reveal that the only significant differences in correlation magnitude for the six codes were between the distress/anxiety code in the neutral and high threat scenario ($t=2.05$, $p=0.02$) and between the distress/anxiety code in the low threat and high threat scenario ($t=2.16$, $p=0.016$).

Chapter 4: Discussion and Conclusion

The present study portrays narcissists as strongly reactive to threat in a manner that is consistent with both the clinical literature and studies that examine narcissistic reactions to ego threat. The hallmark of narcissism in both the low and high threat scenarios was aggression. It is interesting to note, however, that narcissism was not correlated with anger or doubts. This suggests that the aggressive reactions of narcissists may not have been fueled by higher levels of anger or doubts. As a result, it seems that high narcissists are not more emotionally responsive than low narcissists; they are more behaviorally responsive in a manner that allows them to retaliate against the source of threat (in this case, their romantic partner) and to regain their positive self-views. Thus, narcissists didn't get angrier or more upset than non-narcissists; instead what differentiated the two groups is that narcissists tried to get even.

The findings also support the "if-then" rule of narcissistic behavior suggested earlier: "If faced with an ego-threatening situation in the romantic realm, aggress against the source of the ego-threat and end the relationship as a means of preserving positive self-views." In other words, narcissism seems to be best conceptualized as highly responsive to threat in dating relationships and in other domains. In situations in which narcissists are not threatened, however, they do not display the same types of cognitions and behaviors because they do not need to protect their positive self-views. In fact, the literature on narcissism supports the view that narcissists can be rather charming and even well liked in non-threatening situations (Morf & Rhodewalt, 2001; Young & Pinsky, 2006).

Thus, the results of the current study partially support the hypothesis that manifestations of narcissistic behavior vary as a function of the threat level of the situation individuals are in. In particular, high narcissists were indistinguishable from low narcissists in the neutral situation, i.e. individuals' reactions did not vary as a function of their degree of narcissism when threat was not

present. However, in the low and high threat situations, systematic differences between individuals were present based on degree of narcissism. In the low threat situation, as narcissism increased, so did verbal aggression. In the high threat situation, as narcissism increased so did verbal aggression, desire to end the relationship and self-enhancing statements. In addition, distress decreased as narcissism increased. As a result, it appears that degree of narcissism can be used to predict individuals' verbal aggression in situations that imply infidelity threat (regardless of the degree of threat). In addition, these results also suggest that narcissistic behavior is not necessarily stable across situations. In the three different scenarios in this study the pattern of narcissism correlates were not the same. This means that individuals' narcissistic traits were not the only determinant of their reactions; the situation's characteristics also had a significant impact on articulated thoughts and feelings.

It must be noted that the only statistically significant interaction between threat level and narcissism was found for distress. However, given the relatively small sample size and the nonparametric nature of the variables, it is possible that the current study did not have the statistical power to detect other interactions.

The findings in this study also challenge the idea that certain emotional responses are more characteristic of individuals high on narcissism than those low on narcissism. In particular, higher levels of anger have been associated with narcissism in past research (e.g. Rhodewalt & Morf, 1998). This finding, however, was not present in the current study. Anger was not significantly related to degree of narcissism in any of the three scenarios (neutral, low and high threat) even though the high threat situation was created to be very provoking and to represent an ego threat that would be especially salient for narcissists. Furthermore, doubts were also not systematically related to narcissism in any of the situations. These findings are somewhat surprising as evidence suggests that narcissism may be beneficial in protecting against doubts

when the commitment of one's partner is questioned (Foster and Campbell, 2005). Based on Foster and Campbell's (2005) study, it was expected that narcissism would correlate negatively with doubts about the relationship and would thus buffer against anger. In other words, since narcissists have been found to self-enhance in a manner that allows them to preserve their often exaggerated positive self-views (such as "I am such a wonderful individual that my partner would never even consider being with someone else") (Campbell et al., 2000; Morf & Rhodewalt, 2001; Gabriel, Critelli, & Ee, 1994), it was expected that narcissisms would immunize against doubts about one's imaginary partner's actions. Instead it appears that in the current sample, all three situations triggered a similar amount of suspicion in all the participants regardless of their narcissism level.

A possible explanation for this is that a ceiling effect was present. Since the high threat scenario was created to be provoking and upsetting for everyone, it is possible that all the participants reported exclusively high levels of anger and doubts. Descriptive statistics and visual examination of the variable distributions indicate that a ceiling effect was not present; instead, participants reported a wide range of doubts and anger across the continuum of narcissism. Exploratory analyses were then conducted to determine if relationship variables assessed in the study (namely relationship history, current relationship status, current relationship duration) were correlated with anger and doubts in the high threat scenario. None of these variables correlated with anger or with doubts. These findings suggest that factors unrelated to narcissism and having ever been or currently being in a relationship play a role in determining the verbalization of anger and doubts in the three situations. To reiterate, this means that personality was not as influential in determining participants' responses in terms of anger and doubts as suggested by the literature on narcissism.

As mentioned previously, the findings in this study, however, also support the idea that certain emotional responses are more characteristic of individuals high on narcissism than those low on narcissism. In the current sample, narcissism was positively correlated with verbal aggression in both the low and high threat scenarios, as suggested by the literature linking narcissism with expressions of aggression in situations that represent an ego threat such as social rejection (Twenge & Campbell, 2003), failure (Rhodewalt & Morf, 1998) or negative feedback on performance (Martinez, Zeichner, Reidy, & Miller, 2008). Thus, it appears that certain correlates of narcissism tend to be consistently present in any situation that elicits threat regardless of the specific level of the threat. In other words, certain emotional and cognitive correlates of personality traits are likely to be more stable across situations.

Furthermore, desire to end the relationship, distress and positive self-statements were useful in differentiating high from low narcissists in the high threat situation. Thus, there appears to have been a threshold effect such that select aspects of narcissism were “activated” only after a certain level of threat was reached. These findings are consistent with studies suggesting that narcissists are less invested in their romantic relationships (Campbell, Foster & Finkel, 2002) and thus are more likely to end them; that narcissism tends to be negatively related to distress, sadness and depression (Sedikides, et al., 2004); and that narcissists use self-enhancement strategies to maintain their very positive and egocentric self-concept in the face of threat (Campbell, Reeder & Sedikides, 2000; Stucke & Sporer, 2002). Thus, the verbalization of less distress, of more self-enhancing statements and of greater desire to end the relationship in the high threat scenario fits well with previous research on narcissistic reactions in situations that are perceived as threatening.

However, degree of narcissism was not associated with distress or positive self-statements in the low threat scenario, suggesting that the low threat situations was equally

distressing for all individuals on the narcissism continuum. In order to confirm this, both the median values and the distributions of overall distress for high versus low narcissists were tested for equality. The results indicate that no statistically significant difference were present thus supporting the claim that the scenarios caused the same amount of verbalized distress in all individuals regardless of their level of narcissism. This further supports the threshold hypothesis and also suggests that other factors such as relationship history and current relationship status might have been more influential in determining the verbalization of distress in the infidelity scenarios. Indeed, additional analyses revealed that distress was positively correlated with participants' self-reported current relationship duration ($\rho=0.253$, $p=0.038$). This finding provides further support for the proposition that personality traits are likely to be less influential than other factors (in this case, relationship duration) in determining the reactions of individuals in the absence of certain situational characteristics.

It is also noteworthy that when the relation between narcissism and the overall degree of verbalized emotions across the three scenarios was examined, a slightly different pattern of correlations emerged. In this case, narcissism was associated positively with verbal aggression, general anger, positive self-statements, and desire to end the relationship (as would be predicted by previous research) and not significantly associated with doubts or distress. If the three situations had not been considered separately, a different view of narcissism would have emerged, as it would have been easy to conclude that narcissism is always associated with aggression, anger, self-enhancement, and relationship dissolution. However, when considering the situations separately, it becomes apparent that anger was not associated with narcissism and distress and self-enhancing statements were associated with narcissism only in the high threat scenario. Thus, there appears to be much more variability in emotional responses, such that certain narcissistic behaviors and cognitions will only manifest when a certain level of threat has

been reached. This points to the importance of examining individuals in different situations in order to accurately capture their emotional and cognitive responses.

Caveats

Despite the use of a paradigm that is more informative than questionnaire measures, all of the data in the current study are still based on self-report, which may be biased especially when sensitive issues like infidelity are involved. It is possible that the responses of at least some of the participants were affected by social desirability or the novelty of the situation, thus attenuating the strength of the findings. Furthermore, self-report data are not meant to be interpreted as a perfect predictor of actual behavior. Thus, this study does not attempt to make the extrapolation that reports of cognitions and of intended behaviors will reliably predict actual behaviors if a similar, real-life situation were to occur. To achieve this latter aim, future studies should incorporate a measure of actual behaviors or peer report in order to determine whether self-reported negative emotions are highly correlated with negative behaviors outside of the lab.

It should also be noted that the study is based on a sample of college students. Due to the age of the participants and the nature of the simulated situations used, the generalizability of the findings may be limited to younger adults who have only experienced dating relationships. Thus, it would be advisable for studies to further examine narcissistic reactions to threat in a more age diverse sample.

Concluding Remarks

Despite these caveats, the current study is informative as a means of assessing the link between narcissism and emotional and cognitive responses in threatening situations. It represents a novel approach to the study of narcissism through its use of the ATSS paradigm. Instead of assuming that emotional and cognitive responses can be accurately captured through global self-ratings on questionnaires, the current study examines the ongoing thoughts and feelings of

individuals as a simulated situation unravels. As a result, it is not extremely surprising that the findings obtained differ somewhat from previous questionnaire studies.

In particular, the current study suggests that increases in narcissism in the general population are likely to not be systematically associated with emotional and cognitive reactions to a neutral, non-threatening situation. In other words, in the absence of provocation, narcissists are indistinguishable from non-narcissists based on their articulated thoughts and feelings. However, as the situations became more threatening, narcissism was related to an increased degree of verbalizations of aggression. Thus, narcissists appear to be highly sensitive to infidelity threat, which they seek to counteract by aggressing. In other words, they can be viewed as tending to have a revenge-seeking orientation, which differentiates them from those low on narcissism in the presence of threat.

It is thus the interaction between narcissism and situational variables (namely threat) that makes the personality trait a meaningful predictor of emotions and cognitions. As a result, the current study highlights the importance of always taking into account situational factors in order to gain a better understanding of the influence of personality on our lives. Although personality traits might feel like a defining feature of who we are and how we perceive the world around us, they become apparent to others only when the social situation allows them to.

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Appendix A: Sample Characteristics**Table A-1. Participant Gender Ratio**

	Frequency	Percent	Cumulative Percent
Male	43	26.5	26.5
Female	119	73.5	100.0
Total	162	100.0	

Table A-2. Ethnic Composition of Sample

	Frequency	Percent	Cumulative Percent
American Indian/Alaska Native	3	1.9	1.9
Asian	49	30.2	32.1
African American	17	10.5	42.6
Pacific Islander	1	.6	43.2
Hispanic	16	9.9	53.1
Caucasian	59	36.4	89.5
Other	17	10.5	100.0
Total	162	100.0	

Table A-3. Age of Participants

	Frequency	Percent	Cumulative Percent
18	19	11.7	11.9
19	40	24.7	36.9
20	50	30.9	68.1
21	30	18.5	86.9
22	13	8.0	95.0
23	3	1.9	96.9
24	2	1.2	98.1
25	2	1.2	99.4
29	1	.6	100.0
Total	160	98.8	
Missing	2	1.2	
Total	162	100.0	

Table A-4. Participants' Narcissistic Personality Inventory Scores

	N	Median	Interquartile Range	Minimum	Maximum
NPI Score	160	16	12-22	4	33

Table A-5. Participants' Year in College

	Frequency	Percent	Cumulative Percent
1	22	13.6	13.6
2	45	27.8	41.4
3	58	35.8	77.2
4	36	22.2	99.4
6	1	.6	100.0
Total	162	100.0	

Table A-6. Participants' Current Relationship Status

	Frequency	Percent	Cumulative Percent
Not in a serious relationship	89	54.9	54.9
In a serious relationship	73	45.1	100.0
Total	162	100.0	

Table A-7. Relationship Duration (in Months) for those "Currently in a Relationship"

	N	Minimum	Maximum	Mean	Std. Deviation
Duration	73	1	84	17.79	16.411

Table A-8. Participants' Lifetime Relationship Status

	Frequency	Percent	Cumulative Percent
Never been in a serious relationship	30	18.5	18.5
Been in a serious relationship	132	81.5	100.0
Total	162	100.0	

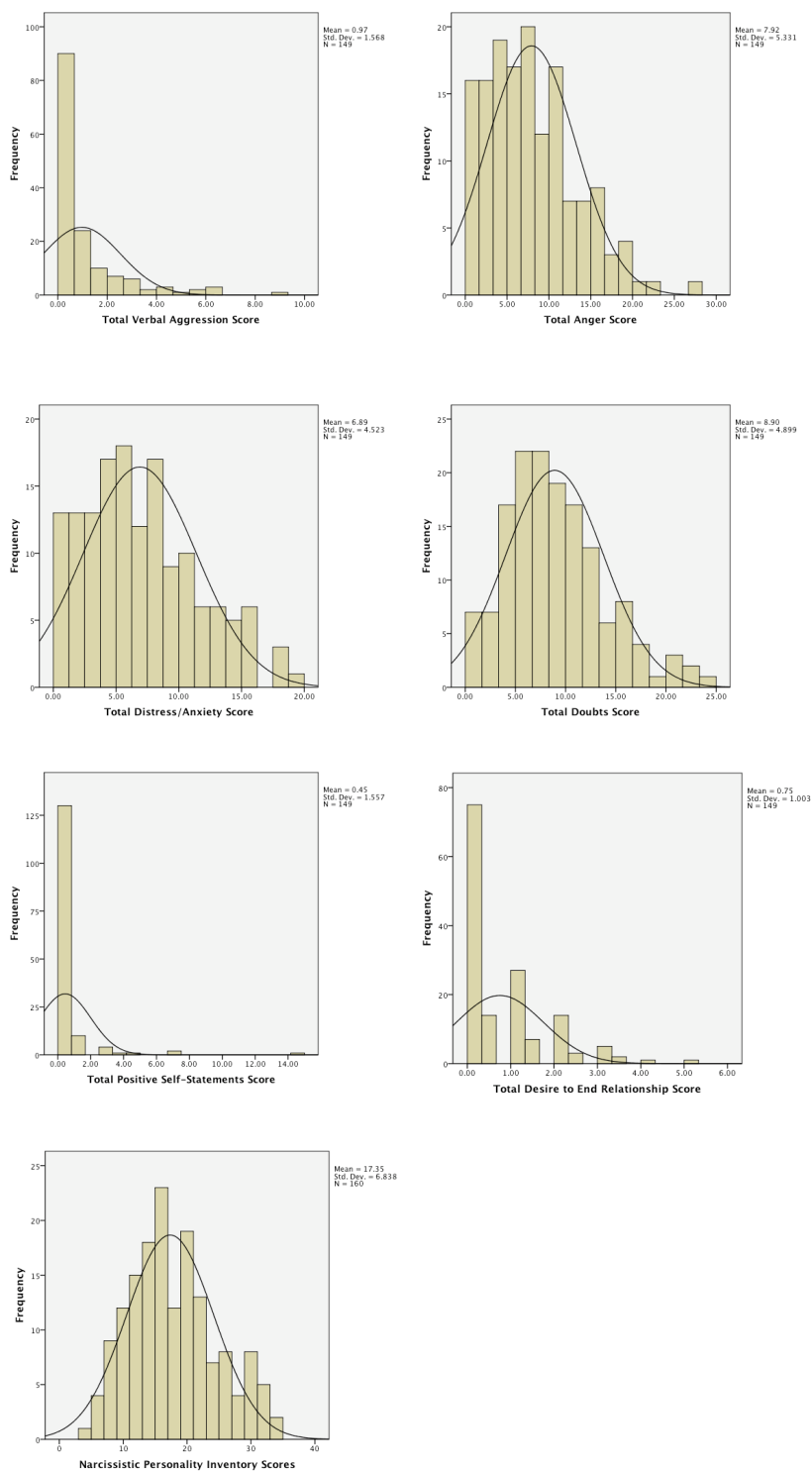


Figure 1. Distributions for the Total Scores of the Six Coded Variables (Verbal Aggression, Anger, Distress/Anxiety, Doubts, Positive Self-Statements, Desire to End Relationship) & Narcissism

Appendix B: ATSS Scenarios

SCENARIOS FOR FEMALES

Neutral

Narrator: It's Saturday night and you are at a party with your boyfriend. The party is packed with college kids; as usual there are some familiar faces and some unfamiliar ones. You ask your boyfriend whether he wants a drink and he says "yes" so you head over to where the drinks are to get two beers.

Narrator: Since the party is pretty crowded, it takes you a couple of minutes to get the beers. You head back to where your boyfriend was standing and you catch a glimpse of him talking to someone whom you vaguely recognize.

Narrator: You are now close enough to overhear the conversation.
 Girl: Yeah, this semester has been really busy. I don't have much time to socialize. I spend all my free time with my boyfriend.

Girl: On that note, where is your girlfriend? I haven't seen her in ages! We really need to catch up.
 Boyfriend: Oh, she should be right back. She just went to get drinks.
 Girl: Ok. I'll just wait here with you then.

Narrator: The voice you hear sounds familiar and you realize that your boyfriend is talking to one of your good friends whom you haven't seen in a while. They notice that you are back and your friend looks very happy to see you.

Low Threat

Narrator: You are still at the party. You come back from the bathroom and your boyfriend is no longer standing where you left him. You look around and catch a glimpse of him talking to an attractive girl he has class with.

Narrator: As you head over to where they are standing, it looks like they are getting along pretty well.

Narrator: You are now close enough to overhear part of their conversation.
 Boyfriend: It would be great if you could fit me into your schedule.
 Girl: Yeah, I think I can make Tuesday work.

Boyfriend: Last time we got together, it really helped...and it was fun.
 Girl: I am glad I could help.

Boyfriend: Great. Let's meet at Starbucks so we can get coffee before we start studying.
 Girl: Sounds good. Enjoy the party. I look forward to seeing you on Tuesday.

High Threat

Narrator: You are still at the same party and you've been having a pretty good time. Your phone rings and you see that it's your roommate. It's a little noisy inside so you decide to step out to take the call.

Narrator: You are done with your brief conversation and you happen to be standing next to an open window. You overhear part of a conversation.
 Ex-girlfriend: So that girl I saw you with earlier...she is really hot.
 Boyfriend: Yeah, she's alright but she's nothing special.

Narrator: You recognize your boyfriend's voice.
 Ex-girlfriend: I hear you two are *very* serious.
 Boyfriend: It's actually *very* casual.

Narrator: Since it is dark outside, you can see them, but they can't see you at all. You catch a glimpse of the girl your boyfriend is talking to and realize it is one of his really good-looking ex-girlfriends.
 Ex-girlfriend: Want to come over for a little after-party fun?
 Narrator: Your boyfriend leans over and whispers something into her ear. She blushes and giggles.

Narrator: Someone drunkenly brushes past you and you turn around for a second. By the time you look back, the two are nowhere in sight. You call your boyfriend's cell and it goes straight to voicemail.

SCENARIOS FOR MALES

Neutral

Narrator: It's Saturday night and you are at a party with your girlfriend. The party is packed with college kids; as usual there are some familiar faces and some unfamiliar ones. You ask your girlfriend whether she wants a drink and she says "yes" so you head over to where the drinks are to get two beers.

Narrator: Since the party is pretty crowded, it takes you a couple of minutes to get the beers. You head back to where your girlfriend was standing and you catch a glimpse of her talking to someone whom you vaguely recognize.

Narrator: You are now close enough to overhear the conversation.
 Guy: Yeah, this semester has been really busy. I don't have much time to socialize. I spend all my free time with my girlfriend.

Guy: On that note, where is your boyfriend? I haven't seen him in ages! We really need to catch up.
 Girlfriend: Oh, he should be right back. He just went to get drinks.
 Guy: Ok. I'll just wait here with you then.

Narrator: The voice you hear sounds familiar and you realize that your girlfriend is talking to one of your good friends whom you haven't seen in a while. They notice that you are back and your friend looks very happy to see you.

Low Threat

Narrator: You are still at the party. You come back from the bathroom and your girlfriend is no longer standing where you left her. You look around and catch a glimpse of her talking to an attractive guy she has class with.

Narrator: As you head over to where they are standing, it looks like they are getting along pretty well.

Narrator: You are now close enough to overhear part of their conversation.

Girlfriend: It would be great if you could fit me into your schedule.

Guy: Yeah, I think I can make Tuesday work.

Girlfriend: Last time we got together, it really helped...and it was fun.

Guy: I am glad I could help.

Girlfriend: Great. Let's meet at Starbucks so we can get coffee before we start studying.

Guy: Sounds good. Enjoy the party. See you on Tuesday.

High Threat

Narrator: You are still at the same party and you've been having a pretty good time. Your phone rings and you see that it's your roommate. It's a little noisy inside so you decide to step out to take the call.

Narrator: You are done with your brief conversation and you happen to be standing next to an open window. You overhear part of a conversation.

Ex-boyfriend: So that guy I saw you with earlier...he is really hot.

Girlfriend: Yeah, he's alright but he's nothing special.

Narrator: You recognize your girlfriend's voice.

Ex-boyfriend: I hear you two are *very* serious.

Girlfriend: It's actually *very* casual.

Narrator: Since it is dark outside, you can see them, but they can't see you at all. You catch a glimpse of the guy your girlfriend is talking to and realize it is one of her really good-looking ex-boyfriends.

Ex-boyfriend: Want to come over for a little after-party fun?

Narrator: Your girlfriend leans over and whispers something into his ear. He smirks.

Narrator: Someone drunkenly brushes past you and you turn around for a second. By the time you look back, the two are nowhere in sight. You call your girlfriend's cell and it goes straight to voicemail.

Appendix C: Narcissistic Personality Inventory (NPI)

Instructions: The following are pairs of statements with which you may or may not identify. Consider this example: A) “I like having authority over people”, versus B) “I don’t mind following orders”. If you identify more with “liking to have authority over people”, than with “not minding following orders”, then you would choose option A). You may identify with both A) and B). In this case you should choose the statement which seems closer to your personal feelings about yourself. Or, if you do not identify with either statement, select the one which is least objectionable or remote. Indicate your answer by circling the letter (“A” or “B”) that corresponds to the statement you pick for each item.

1. A I have a natural talent for influencing people.
B I am not good at influencing people.
2. A Modesty doesn’t become me.
B I am essentially a modest person.
3. A I would do almost anything on a dare.
B I tend to be a fairly cautious person.
4. A When people complement me I sometimes get embarrassed.
B I know that I am good because everybody keeps telling me so.
5. A The thought of ruling the world frightens the hell out of me.
B If I ruled the world, it would be a much better place.
6. A I can usually talk my way out of anything.
B I try to accept the consequences of my behavior.
7. A I prefer to blend in with the crowd.
B I like to be the center of attention.
8. A I will be a success.
B I am not too concerned about success.
9. A I am no better or worse than most people.
B I think I am a special person.
10. A I am not sure if I would make a good leader.
B I see myself as a good leader.
11. A I am assertive.
B I wish I were more assertive.
12. A I like having authority over people.
B I don’t mind following orders.

13. A I find it easy to manipulate people.
B I don't like it when I find myself manipulating people.
14. A I insist upon getting the respect that is due me.
B I usually get the respect I deserve.
15. A I don't particularly like to show off my body.
B I like to display my body.
16. A I can read people like a book.
B People are sometimes hard to understand.
17. A If I feel I am competent, I am willing to take responsibility for making decisions.
B I like to take responsibility for making decisions.
18. A I just want to be reasonably happy.
B I want to amount to something in the eyes of the world.
19. A My body is nothing special.
B I like to look at my body.
20. A I try not to be a show off.
B I am apt to show off if I get the chance.
21. A I always know what I am doing.
B Sometimes I am not sure of what I am doing.
22. A I sometimes depend on people to get things done.
B I rarely depend on anyone else to get things done.
23. A Sometimes I tell good stories.
B Everybody likes to hear my stories.
24. A I expect a great deal from other people.
B I like to do things for other people.
25. A I will never be satisfied until I get what I deserve.
B I take my satisfactions as they come.
26. A Compliments embarrass me.
B I like to be complimented.
27. A I have a strong will to power.
B Power for its own sake doesn't interest me.
28. A I don't very much care about new fads and fashions.
B I like to start new fads and fashions.

29. A I like to look at myself in the mirror.
B I am not particularly interested in looking at myself in the mirror.
30. A I really like to be the center of attention.
B It makes me uncomfortable to be the center of attention.
31. A I can live my life in any way I want to.
B People can't always live their lives in terms of what they want.
32. A Being an authority doesn't mean that much to me.
B People always seem to recognize my authority.
33. A I would prefer to be a leader.
B It makes little difference to me whether I am a leader or not.
34. A I am going to be a great person.
B I hope I am going to be successful.
35. A People sometimes believe what I tell them.
B I can make anybody believe anything I want them to.
36. A I am a born leader.
B Leadership is a quality that takes a long time to develop.
37. A I wish someone would someday write my biography.
B I don't like people to pry into my life for any reason.
38. A I get upset when people don't notice how I look when I go out in public.
B I don't mind blending into the crowd when I go out in public.
39. A I am more capable than other people.
B There is a lot I can learn from other people.
40. A I am much like everybody else.
B I am an extraordinary person.

Appendix D: ATSS Coding Procedures

Please use the following 4-point Likert scale to rate the categories described below.

- 0 – not at all
- 1 – slightly/somewhat
- 2 – moderately
- 3 – very

Please take into consideration the tone of voice and other verbal cues of the verbalizations, like how loud they are speaking, when coding!!! These factors help us understand the meaning of what the person is saying.

Coding Categories:

1. Verbal Aggression and Intent to Harm

This coding category captures statements referring to hostile or violent intentions or behaviors towards another person in the scenarios. The category also denotes a readiness to attack or confront another person and includes derogatory statements about other individuals.

Examples

I would go over and slap him.

I'd like to absolutely destroy him.

I'd confront her later.

There might be a beat down in session for the guy [for trying to overstep his bounds].

This is going to end in a pretty big fight because it's inappropriate behavior.

2. Expression of General Anger

This coding category captures statements referring to feelings of strong displeasure, antagonism and/or annoyance. It also denotes frustration and resentment towards other individuals. This category is related to but is different from the preceding one, Verbal Aggression and Intent to Harm, because it concerns how the person *feels*, not any action that the person is contemplating.

Examples

It's annoying that he left for a second time and is not watching out for me.

I would be kind of irked by it.

I'd be very pissed off at him.

I don't need to spend my time on this jerk.

I'm definitely very angry/furious at this point.

Pretty much rage would be a good [description of my feelings].

How dare he!

3. Distress/Anxiety/Hurt

This coding category captures statements referring to feelings of worry, nervousness, unease, sorrow, pain and emotional suffering.

Examples

I am extremely worried.

This would make me sad and depressed.

I am the guy who is “nothing special” and I'm obviously hurt by this.
 I would feel like crap for the rest of the party.
 I am getting a dreading sensation in my stomach.
 I'm very concerned.”
 I'm legitimately freaking out because I'm just assuming that she is running off with this ex-boyfriend.

4. Doubts about relationship and/or partner commitment

This coding category captures statements referring to the feeling/belief that one cannot rely on one's partner, that he/she is not trustworthy and/or not committed to the romantic relationship.

Examples

I would be questioning, I would be doubtful.
 I am panicked about my relationship and feel an overwhelming fear of abandonment.
 I think she might be leaving me.

5. Positive Self-Evaluations

This coding category captures statements presenting the self in a positive light. These include expressions of high self-esteem and self-enhancing statements.

Examples

An attractive girl, so what? I'm not unattractive myself, so it's okay.
 I'm pretty smart myself.
 He has a girlfriend so he is no threat to me; obviously he wouldn't be a threat anyway.
 There is no way that she can compete with me or that he's interested in her.

6. Decision to end relationship – Yes/No

This coding category captures explicit statements regarding a decision to end the current romantic relationship. The category is coded “yes” only if there is an explicit statement specifically referring to the end of the relationship (as opposed to a general tone of the verbalizations that might *imply* a desire to end the relationship, i.e. no inferences should be made by the coder).

Examples of “Yes” statements

I'm pissed. We're no longer together.
 I should dump him.
 I would totally break up with him.
 We're done. We're over.
 I would just leave, give him back all his stuff and never talk to him again.