

The Analysis of Personality through Language:
Narcissism Predicts Use of Shame-Related Words in Narratives

by

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Abstract

The current study examined narcissism in relation to self-conscious emotions, pronoun use, affective processes and other linguistic characteristics. Participants responded to three written prompts about shame, neutral, and pride experiences and completed measures of personality. We hypothesized that narcissism would be related to use of shame and hubristic pride words, but would be unrelated to use of guilt and authentic pride words. We also expected that narcissism would predict use of the word “I” and that this relation would be strongest in the pride condition. Narratives were analyzed using the Linguistic Inquiry and Word (LIWC) Count System. Results revealed that, in the shame condition, narcissism was marginally associated with use of shame words, and this finding was not accounted for by self-esteem. Our other hypotheses were not supported; hubristic pride was not related to narcissism and “I” was not positively associated with narcissism, but instead a negative correlation between “I” and narcissism approached significance in the shame condition. Analyses revealed a relation between narcissism and content relating to status as well as use of fillers and anxiety in the shame condition. We discuss the utility of written language analysis in assessing shame and other self-conscious emotions that are not identifiable using self-report measures.

The Analysis of Personality through Language:

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Narcissism is characterized by arrogance, feelings of superiority and grandiosity, a sense of entitlement and need for admiration, lack of empathy, and interpersonally exploitive behavior. In constant hunger for attention and admiration, narcissistic individuals may fantasize about wealth, power, or beauty, and use others as tools in an attempt to maintain and affirm their fragile and unrealistic self-perceptions (Andersen, Miranda, & Edwards, 2001; Raskin & Shaw, 1988). This constellation of personality attributes can be observed both at clinical levels, reflecting narcissistic personality disorder (American Psychiatric Association, 1994), and at sub-clinical levels, reflecting a normally distributed personality characteristic (Raskin & Hall, 1979).

Yet, there are inconsistencies in the literature regarding the etiology and emotional manifestations of narcissism. In particular, there has been a long-standing debate over the role of shame in the development and maintenance of narcissism. For decades, researchers have hypothesized that shame is the “keystone affect” in narcissism (Wright, O’Leary & Balkin, 1989), but empirical research addressing this issue yields mixed findings. Some studies suggest that narcissists report higher levels of shame (e.g., Watson, Hickman, & Morris, 1996), whereas other studies suggest the opposite (e.g., Gramzow & Tangney, 1992).

The lack of consistent findings across studies suggests the need for an alternative method of assessing shame and its relation to narcissism. We believe that analysis of written language will address this need. Unlike self-report measures, writing does not require individuals to introspectively rate themselves but instead provides an unguarded glimpse into feelings and personality (Pennebaker & Lay, 2002). Indeed, research has demonstrated that certain aspects of language are impossible to control in speech, even under experimental manipulation (Chung &

Pennebaker, 2007; Rochon, Saffran, Berndt, & Schwartz, 2000). Therefore, analyzing written language can provide information about less conscious aspects of personality, potentially revealing relations between personality characteristics and emotions that cannot be assessed with face-valid rating scales.

It was this utility of language analysis and our interest in the role of shame in narcissism that led us to investigate language use and self-conscious emotions in the current study. Specifically, we examined whether narcissism was related to the use of shame-related words when participants wrote about personally meaningful childhood memories. Previous literature has suggested the usefulness of studying self-defining memories among narcissists (Robins, Tracy, & Shaver, 2001). We expected that the effects of narcissism would be particularly evident when participants described experiences of shame and pride, thought to be central to narcissistic self-esteem regulation (Wright, O'Leary, & Balkin, 1989), compared to emotionally neutral experiences. We also examined other linguistic categories that are likely to be relevant to narcissism, including other categories of self-conscious emotions (e.g., pride, guilt), first-person pronoun use, and affective processes (e.g., positive emotion words, anxiety). Because narcissistic individuals place great value on status and self-importance, spending time fantasizing about wealth, power, or beauty, we also examined the prevalence of these themes in their narratives. Additionally, we examined the use of filler words and phrases (e.g., like, I mean) because they suggest uncertainty and insecurity speaking about a topic (Tausczik & Pennebaker, 2010). In the following sections, we first consider the utility of using language to examine personality processes. We then describe the specific narrative features that we hypothesized to be related to narcissism in the current study.

Manifestations of Personality in Language

Language has long been understood to be a marker of individual differences and, more recently, has been used to understand personality. However, which aspects of language most reliably reflect stable personality traits versus contextual influences is unclear, and has become a popular arena of investigation. In a seminal study, Pennebaker and King (1999) demonstrated relations between groupings of linguistic categories (e.g., “making decisions”, comprised of words related to exclusivity, tentativeness, negations, inclusivity, and discrepancies), the Big Five personality dimensions, and symptoms of depression and anxiety in sample of substance abuse inpatients. This study paved the road for further analyses of personality and written language, and has led to many interesting findings. For instance, use of first-person singular pronouns (e.g., I, me, my) is higher in individuals who are of high status (Newman, Pennebaker, Berry, & Richards 2001), currently or previously depressed (Rude, Gortner, & Pennebaker, 2001), or suicidal (Stirman & Pennebaker, 2001), suggesting that a single linguistic marker can result from a variety of personal characteristics.

There have also been some attempts to correlate personality and spoken language. One study conducted an investigative analysis between the Big Five and spoken language over a two-day period using the Electronically Activated Recorder (EAR). Results suggested a moderate relation between personality, gender, and language use (Mehl, Gosling, & Pennebaker, 2006). For example, extraversion was related to a higher word count for both men and women and more past tense verbs for women. In addition, conscientiousness predicted more second-person pronouns in men and more exclusive word use (e.g., but, without, exclude) in women. Similarly, using self and acquaintance ratings of personality, Fast and Funder (2008) found a relation between linguistic categories and personality. For instance, greater use of certainty and

smart/thoughtfulness words was related to emotionality, and use of sexual words was positively related to personality traits described as extraverted, dramatic, and unconventional. Taken together, these studies suggest that language use may be a reliable and revealing route to the study of personality.

There are reasons to believe that narcissism, like other personality dimensions, may be related to specific linguistic patterns. Narcissism is a stable, pervasive trait that has been associated with behavior in a variety of contexts (e.g., aggression, Bushman & Baumeister, 1998). Yet, the manifestations of narcissism in language have been largely ignored. In one exception, Raskin and Shaw (1988) found evidence that, in spoken language, narcissists use more first-person singular pronouns (e.g., I) and fewer first-person plural pronouns (e.g., we). Personal pronouns are one of the most frequently used parts of speech and function to distinguish between the speaker and others. Therefore, pronouns reflect a person's self-awareness or degree of egocentricity (i.e., use of first person singular pronouns "I") as well as their social orientation (i.e., use of first plural pronouns like "us"). Raskin and Shaw (1988) found that narcissism was not related to second (e.g., you) or third person-pronoun (e.g., he) use, but they did not examine other linguistic categories and, to our knowledge, no studies have investigated the manifestations of narcissism in *written* language.

Relations Between Narcissism and Self-Conscious Emotions

Shame and Guilt

For decades, researchers have hypothesized differences between shame and guilt, but not until recently have these differences been empirically investigated in research (Lewis, 1971; Tangney, 1995). Now considered two distinct emotions, the key differences between the two are believed to lie in the perceived role of the self, the affective experience, and the resulting

interpersonal motivations. Accordingly, shame is experienced when the individual focuses on and negatively evaluates the self. The eliciting event does not need to occur publically, but s/he feels exposed and powerless as s/he observes or imagines how s/he appears to others.

Additionally, the experience of shame motivates specific behaviors, such as to escape or hide, and to avoid admitting to the transgression. Consequently, the individual becomes more concerned with the self and personal distress and is less likely to empathize with others or make reprimands (Tangney, 1995). Such antisocial behaviors have serious consequences. Specifically, Tangney found that shame-proneness was related to 12 indices of psychopathology, including somatization, obsessive-compulsive, hostility/anger, anxiety, and depression (Tangney, Wagner, & Gramzow, 1992). It is not surprising that shame has been regarded as the “darker side of moral affect” (Tangney, 1995).

Conversely, during the experience of guilt, the self is not the central focus of negative evaluation, but instead the focus is on the event, or *thing* done or undone. Because the object of critique is not the self, but the ‘bad thing done’, guilt may be experienced as less painful than shame. The experience of guilt does not involve actual or imaginary public exposure; the individual does not ruminate about others’ observation and disapproval but becomes preoccupied with the incident and may replay it repeatedly to him/herself. Feelings of guilt may involve a sense of regret or remorse, which motivates pro-social and reparative action (Tangney, Miller, Flicker, & Barlow, 1996). In fact, guilt-proneness is typically unrelated to mental health (Tangney et al., 1992).

From these definitions, it is not difficult to imagine an association between shame and narcissism. For example, individuals high in narcissism are more likely to experience the psychological maladjustment that accompanies shame-proneness (Tangney et al., 1992). Indeed,

research that supports this association argues that narcissistic self-esteem regulation (manifesting as the self-aggrandizement and the hostility-rage characteristics of narcissism) functions as a defense against excessive shame experienced by narcissists (Tracy, Cheng, Robins, & Trzesniewski, 2009). Thus, shame is a result of stable, global attributions of failure, where the individual is unable to distinguish the bad thing done from the bad self (Tracy & Robins, 2007). Over time, narcissists minimize shame by keeping their negative self-representations unconscious and dissociated from their positive self-views (Tracy et al., 2009). It is this disassociation that accounts for the lower reports of shame on explicit measures (Gramzow & Tangney, 1992)

However, shame's specific role in narcissism is unclear. For instance, it has been suggested that shame may be either experienced consciously or it may be denied depending on the type of narcissism (Watson, Hickman, and Morris, 1996; Wink, 1991; Wright et al., 1989). There is some research to support this claim: Watson et al. (1996) reported a positive relation between maladaptive aspects of narcissism (e.g., exploitativeness) and the experience of shame, measured by the Adapted Shame/Guilt Scale (ASGS; Hoblitzelle, 1982), and Personal Feelings Questionnaire (PFQ-2; Harder & Zalma, 1990). Other research suggests that gender moderates the relation between narcissism and shame. For example, Wright et al. (1989) found that one subscale of the NPI, exploitativeness, was negatively correlated with the tendency to experience shame in men (measured with the ASGS), whereas other subscales, leadership and grandiosity, were negatively correlated with shame in women. Taken together, these varied and inconsistent findings in the research demonstrate the need for further investigation between shame and narcissism.

As described above, decades of research offer theoretical support for the importance of shame regulation in narcissism. However, there is no direct empirical evidence for this hypothesis. We believe that by utilizing language analysis, we will be better able to measure self-conscious emotions and to assess the relation between narcissism and shame. Consequently, the first hypothesis of the current research was that narcissism would be positively correlated with the use of shame words and that this relationship would be independent of self-esteem. Given the pro-social nature of guilt, we expected that narcissism would be unrelated (or perhaps negatively related) to this self-conscious emotion.

Pride

Research has demonstrated the validity of two forms of pride (Tracy & Robins, 2007). The first form, authentic pride, is based on a specific accomplishment and is accompanied by feelings of confidence. Authentic pride is internal, unstable (dependent upon the situation), and controllable (because of *my* actions). Consequently, this type of pride is linked to high self-esteem and positive achievement behaviors, as well as successful social relationships and altruism (Tracy et al., 2009).

Conversely, hubristic pride is a pride in the global self that is not dependent on accomplishments but is internal, stable, and based on uncontrollable causes (I won because I am perfect). It reflects a sense of self that is likely distorted or inflated, and has been linked with a range of maladaptive behaviors such as aggression. Research suggests that hubristic pride is positively correlated with antisocial behaviors and poor psychological and health outcomes (Tracy et al., 2009; Tracy & Robins, 2007).

Interestingly, recent research has demonstrated that authentic pride is associated with guilt and genuine self-esteem, whereas hubristic pride is more closely associated with shame and

narcissism (Tracy et al., 2009). Tracy and colleagues conceptualize these two groupings as different self-regulatory processes: The first, genuine self-esteem, is composed of authentic pride and guilt. This self-regulatory process is related to socially desirable personality traits, such as agreeableness, consciousness, and extraversion. People who utilize this self-regulatory process tend to attribute their successes and failures to their own effort, and may experience guilt in response to failure. This feeling of guilt fosters pro-social behaviors, and may result in apology, confession, and empathy. Additionally, individuals who use this kind of strategy have self-esteem that is not contingent on the perceived appraisal of others, and are able to engage in positive self-evaluations and to maintain a positive self-view following failure. Not surprisingly, guilt-proneness is related to positive mental health, and is inversely related to the interpersonal problems and psychological problems associated with narcissism (Tracy et al., 2009).

The second self-regulatory process discussed by Tracy et al. (2009) is narcissistic self-aggrandizement, characterized by hubristic pride and shame. Individuals engaging in this self-regulatory process base their global self-worth on external factors, such as compliments and partner approval. Based on these contingencies, self-esteem fluctuates and either hubristic pride or shame is experienced, resulting in defensive behavior, self-enhancement, and hostile behaviors in the face of a self-threat. Consequently, this system, and particularly hubristic pride, is related to poor relationship functioning and negative health outcomes such as chronic anxiety (Tracy et al., 2009). Thus, in the current study, we expected narcissism to be positively related to the use of hubristic pride words, independent of self-esteem. Additionally, we expected this relation to be strongest in the shame prompt condition because asking narcissists to reflect on a self-relevant experience of shame should activate their narcissistic self-aggrandizing process and increase their use of hubristic pride-related words.

Other Potential Linguistic Indicators of Narcissism

In addition to the use of self-conscious emotions, we examined use of pronouns, other emotion words, fillers, and linguistic content. We expected that narcissism would be related to an increased use of first-person singular pronouns, and most strongly to “I”. This use of “I” should be greatest in the pride condition, where participants would be most likely to emphasize the relation between the positive experience and themselves (e.g., *I* succeeded, and *I* felt proud).

Research has documented the association between narcissism and psychological and emotional well-being, as well as the relation between shame-proneness and unhealthy affect including anger and anxiety (Tangney et al., 1992; Tracy et al., 2009). Therefore, due to the aforementioned emotional processes linked with narcissism, we conducted an exploratory analysis of narcissism and the use of emotion-related words (positive emotion, negative emotion, anxiety, anger, sadness) in the three experimental conditions.

In spoken language, research has found that fillers (e.g., like, well, I mean, you know) represent informal, unprepared speech and can also signify that the speaker is insecure or uncertain about their topic (Tausczik & Pennebaker, 2010; van Middendorp & Geenen, 2008). While the motivation of filler use has not been examined in written language in previous research, we can speculate that fillers signify that the writer is having difficulty verbalizing his or her thoughts. Fillers might also be used to pass time or as a mechanism of avoidance (e.g., if one does not know the correct answer to an essay question on an exam). We included the LIWC category of fillers in our current study because their use could suggest that our participants were having difficulty writing about a shameful, proud, or neutral childhood memory.

Finally, consistent with the goals of narcissists, we expected evidence of a preoccupation with status, wealth and power (e.g., Sutin & Robins, 2005.) For our mainly college aged sample,

we believed that these preoccupations would correspond with the LIWC categories of friends, money, and sex and we singled out these categories for further investigation in the current study.

The Current Study

To summarize, the role of narcissism in written language is an unexplored area in social and personality psychology. We begin investigation of this relationship by analyzing written narratives across three different contexts: childhood memories of shame, pride, and neutral experiences. Our first hypothesis was that narcissism would be positively correlated with the use of shame and hubristic pride words, and that this relation would be independent of self-esteem. We expected this correlation to be strongest in the shame condition. In contrast, we predicted that guilt and authentic pride would not be related to narcissism. Our second hypothesis was that narcissism would be related to the use of first-person singular pronouns. Overall, narcissism should be most strongly correlated with use of the pronoun “I” and this relation should be greatest in the pride condition. Finally, we investigated the content categories of friends, money, and sex, affective processes, and fillers across prompt conditions.

Method

Participants

Two hundred and ten undergraduate students attending a large state university in the Midwest of the United States received course credit or monetary compensation for participating. Data from eighteen students whose first language was not English were excluded from further analysis. An additional 28 students were not included because of missing data on the personality or narrative measures. Of the remaining sample ($n = 164$), 51% were female, and participants ranged in age from 18 to 49 years with a mean age of 20.04 ($SD = 3.72$). Approximately three-fourths of participants identified as Caucasian, 11.6% as Asian-American, 7.3% as African

American, 4.3% as Hispanic, and 3.6% as other ethnicities. All procedures were approved by the University of Michigan Institutional Review Board.

Measures

Narcissism was assessed using the Narcissistic Personality Inventory (NPI; Raskin & Hall, 1981). The NPI consists of 40 forced-choice items and participants indicate which statement they most agree with; one statement represents a narcissistic outlook and the other does not. For example, “The thought of ruling the world frightens me” versus “If I ruled the world it would be a much better place.” The number of narcissistic options chosen are summed to create a total narcissism score. The NPI has demonstrated good reliability and construct validity (Raskin & Hall, 1981; Raskin & Terry, 1988). In the present study, internal consistency of the NPI was .84.

Self-esteem was assessed using the Rosenberg Self-Esteem Inventory (RSE; Rosenberg, 1965). The RSE includes 10 questions that are answered using a 5-point Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree). After reverse-scoring the negatively worded items, the total score is calculated by averaging the score from each of the ten items. The RSE has demonstrated excellent reliability as well as concurrent, predictive, and construct validity (Gray-Little, Williams, & Hancock, 1997). Internal consistency in the present sample was .87.

Open-Ended Memory Prompts

Three open-ended writing prompts, aimed to elicit a personally meaningful childhood memory, were presented in a randomized order and participants were given as much time to write as necessary. The prompts were designed to elicit experiences related to shame, pride, and an emotionally neutral but important childhood memory. Specifically, participants were told to “take a moment to think about your childhood. Try to place yourself back in that context (e.g.,

where you lived, what your family was like, what you looked like). Please think about the first memory that comes to mind when you think about the word SHAME/PRIDE/SUMMER. Please describe the memory that the word SHAME/PRIDE/SUMMER brought to mind. Just write whatever comes to mind. Try to describe your memory in as much detail as possible, including where you were, who was there with you, what you were thinking and feeling at the time, etc.”

Text Analysis Procedure

Writing samples were analyzed using the Linguistic Inquiry and Word Count, or LIWC program (Pennebaker, Booth, & Francis, 2007). The LIWC calculates the total word count of each response and reports each language category as a percentage of total words. Previous research has repeatedly demonstrated the reliability and validity of the LIWC (Pennebaker, Chung, Ireland, Gonzales, & Booth, 2007). Although the program provides information about 74 linguistic dimensions, we chose to examine 17 of these categories that we deemed most relevant to our hypotheses. These categories included pronoun use (e.g., first-person singular, first-person plural), affective processes (e.g., positive emotions, anxiety), content categories (e.g., family, friends) and fillers (e.g., well, I mean, you know). These specific categories were chosen because of their established or theoretical relation to narcissism (e.g., Heiserman & Cook, 1998; Pennebaker & King, 1999; Raskin & Shaw, 1988; Sutin & Robins, 2005).

In addition to these categories, we created five additional dictionaries to add to the LIWC analysis program: *shame*, *guilt*, *hubristic pride*, *authentic pride*, and a general category of *pride* (comprised of the authentic, hubristic, and additional pride-related words). Words included in these dictionaries are listed in the Appendices. To assemble the list of shame and guilt words, we had independent raters score synonyms of the words from Hoblitzelle's (1982) 10-word shame scale and 12-word guilt scale. Raters reported how much they felt each word related to shame or

guilt on a 5-point Likert scale, ranging from 1 (not at all related) to 5 (very related). Words that received a rating of 3.0 and above were included in our new dictionaries. Cronbach's alpha was calculated for both categories (shame $\alpha = .70$, guilt $\alpha = .76$) and suggest an acceptable inter-rater reliability.

Similarly, dictionaries were created for authentic and hubristic pride by expanding on Tracy and Robins' (2007) scales of Authentic and Hubristic Pride. Lists of synonyms were created for both facets of pride and independent raters scored these words on a 5-point Likert scale, ranging from 1 (not at all related) to 5 (very related). Words that were rated 3.0 and above were included in our new dictionaries. Words that were high on both dimensions of authentic and hubristic pride were included in a dictionary of general pride, which also included the final dictionaries of authentic and hubristic pride. Internal consistencies for the authentic pride and hubristic pride dictionaries were .96 and .85 respectively.

Results

Preliminary Analyses

Across prompts, the average response length was 175.65 words ($SD = 61.93$), and ranged from 36 to 386 words. Means and standard deviations for the selected LIWC categories are presented by condition in Table 1. As shown in Table 1, our manipulation was effective in that more shame words were used in the shame versus other conditions, and more pride words were used in the pride versus other conditions. Overall, first person singular pronouns were used more frequently than any of the other categories of pronouns with the greatest rate of first-person singular pronoun use in the shame condition. Additionally, in the shame condition "I" was the most frequently used pronoun. Second person pronouns were used least frequently of any single pronoun or category measured. Of the affective processes, positive words were used more than

any other emotion word in the neutral and pride conditions, while negative emotion words were used at a higher rate than any other emotion category in the shame condition. These results suggest that participants responded positively to the neutral and pride conditions, and more negatively to the shame condition, as we intended. Content category analysis revealed that, across conditions, participants spoke about their family more frequently than the other content conditions in our study, including friends. Finally, fillers were used by participants in all three conditions. Taken together, these results suggest that our dictionaries were successful in capturing the specific self-conscious emotion that was prompted as well as eliciting the intended emotional response (e.g., positive in the pride and negative in the shame).

Consistent with previous research, self-esteem and narcissism scores were significantly correlated ($r = .35, p < .01$). Therefore, to test our hypotheses about relations between narcissism and LIWC categories, we report both Pearson's correlations and beta values from linear regressions statistically controlling for self-esteem. Gender was unrelated to NPI scores ($r = -.06, p = .43$), and including gender in our analyses did not substantively change the findings, so analyses are presented collapsed across gender.

Hypothesis 1: Relation Between Narcissism and Self-Conscious Emotions

Our first hypothesis was that narcissism would be related to use of shame words and hubristic pride words in all three prompt conditions, but would be greatest in the shame condition. Conversely, we expected that narcissism would be negatively related to the use of authentic pride and guilt-related words. Table 2 shows the correlations between narcissism and the use of the self-conscious emotion words and other LIWC categories by condition. The beta values reflect the relation between narcissism and the linguistic category when controlling for self-esteem. This table offers us a comprehensive illustration of the differing effects that each

prompt condition had on the linguistic style and content of narcissistic participants. In particular, the linguistic picture of narcissists in the shame condition stands out, emphasizing the distinctive effect this threatening condition had on revealing personally revealing information about narcissistic participants. We review these specific characteristics below.

Overall, the results from Table 2 show moderate support for our first hypothesis that narcissism would be related to shame and hubristic pride words and that this relation would be most pronounced in the shame condition. In the shame condition we found a relationship between shame and narcissism that approached significance. These results continued to approach significance when controlling for self-esteem. However, our prediction that narcissism would be related to hubristic pride words in all three conditions was not supported. This effect may have been due to the low rate of hubristic pride words among all participants, suggesting that the prompts did not elicit hubristic reactions in our participants. As we hypothesized, guilt and authentic pride were not significantly correlated with narcissism.

Shame condition. Consistent with our first hypothesis, the relation between narcissism and shame words approached significance in the shame condition. That is, although more shame words were used in the shame versus other conditions (see Table 1), narcissism predicted an even greater use of shame-related words. We failed to find a relation between hubristic pride words and narcissism, although use of authentic pride words was marginally positively associated with narcissism. The strength of these relationships was unchanged when self-esteem was statistically controlled.

Neutral condition. Correlations between all five categories of self-conscious emotions and narcissism were nonsignificant in the neutral condition, and remained so when controlling for self-esteem.

Pride condition. In the pride condition, narcissism was marginally associated with the use of pride and guilt words. Therefore, narcissistic participants tended to use somewhat more pride-related words when writing about their accomplishments. Unexpectedly, narcissism was also marginally associated with use of guilt words in this condition, suggesting that narcissistic individuals in our sample may have felt guilt about their self-aggrandizement.

Hypothesis 2: Relation Between Narcissism and use of the Pronoun “I”

Our second hypothesis was that narcissism would be positively related to use of the first-person singular pronoun “I”. Specifically, we believed this relationship would be most pronounced in the pride condition, where narcissists would use the pronoun “I” as a mechanism of self-enhancement by linking the self with the positive pride-eliciting event. Overall, correlations between “I” and narcissism in the three prompt conditions were nonsignificant and in the opposite direction than expected. However, consistent with previous research, narcissism was unrelated to second- or third-person pronoun use.

Shame condition. As shown in Table 1, first-person singular pronouns were used most frequently by participants in the shame condition. However, “I” use was marginally negatively associated with narcissism in the shame condition when self-esteem was controlled for. No other pronoun category was associated with narcissism in this prompt condition.

Neutral condition. In the neutral condition, participants used first-person singular pronouns with the lowest frequency. However, narcissism was marginally positively associated with use of the first person singular pronoun “me”. No other pronouns or categories of pronouns were significantly associated with narcissism in this condition.

Pride condition. Contrary to our hypothesis, “I” use was not related to narcissism in the pride condition. As in the neutral condition, narcissism was related to the use of “me”, although

this relation diminished after controlling for self-esteem. No other pronouns or categories of pronouns were significantly related to narcissism in this condition.

Relation Between Narcissism and Content Categories

Theory suggests that narcissists are preoccupied with their perceived image and status. Therefore, we investigated the relation between narcissism and LIWC categories that may be associated with status in a college-aged population, specifically, friends, money, and sex. Positive correlations between these categories would suggest that individuals high in narcissism are preoccupied with these concepts across different emotional and situational contexts.

Shame condition. Individuals high in narcissism were significantly more likely to use words related to money when discussing a shameful experience. This finding may reflect the shame narcissistic individuals feel about spending money, or may be a way to accrue status and self-aggrandize as a defense to combat their memory of shame.

Neutral condition. Relations between narcissism and LIWC categories in the neutral condition were varied: Narcissism was negatively related to the use of family related words, reflecting less discussion of family in narcissistic individual's narratives. Words related to friends, sex, and money were positively related to narcissism. This may reflect the diminished importance of family on status during the college years, where friends, money, and sex become increasingly important symbols of popularity and power. Each of these findings remained significant when controlling for self-esteem.

Pride condition. In the pride condition, narcissism predicted use of words related to friends and sex, although the latter was only significant when controlling for self-esteem. This finding supported our hypothesis that narcissism would predict an increased use of status-related words when speaking about pride experiences. When describing their accomplishments,

narcissistic individuals in our sample wrote about others, both friends and sexual relationships, to inflate their self-image in their writing.

Relations Between Narcissism and Additional LIWC Categories

Shame condition. In the shame condition, narcissism was negatively related to use of positive emotion words and was positively related to use of anxiety-related words. Both of these correlations remained significant when controlling for self-esteem. In this condition, narcissism was also positively associated with use of filler words. This relation between narcissism and filler words was not found in the other conditions, suggesting that narcissistic participants were attempting to avoid or distance themselves specifically from a memory of shame.

Neutral condition. In the neutral condition, narcissism was significantly negatively associated with the use of anxiety-related words, and this relation remained significant after controlling for self-esteem. Whereas in the shame condition use of anxiety words was positively related to narcissism, the opposite was true for the neutral prompt condition. Narcissism did not predict use of fillers in the neutral condition.

Pride condition. In the pride condition, narcissism was unrelated to all five categories of emotional processes and filler words.

Discussion

Language has long been understood to be a meaningful way to explore personality, and previous research has demonstrated the stability of individual differences in language usage across contexts (Pennebaker & King, 1999). Pennebaker and King (1999), for instance, investigated the relation between the Big Five dimensions of personality and linguistic categories of the LIWC, and found that language use was modestly, but reliably, related to personality. Word use has also been linked with long-term psychological and physical health, for instance,

reliably differentiating individuals with schizophrenia (Rosenberg & Tucker, 1979), cancer proneness (Spence, Scarborough & Ginsberg, 1987) suicidal tendencies (Stirman & Pennebaker, 2000), somatization disorders (Oxman, Rosenberg, Schnurr & Tucker 1988), and depression (Rude, Gortner, Pennebaker, 2004).

Despite the established links between personality and language usage, the linguistic correlates of narcissism have yet to be investigated. Such an analysis is especially interesting because of disagreements in the literature about relations between narcissism and shame.

Therefore, to capitalize on the power of linguistic analysis, we had participants write narratives about experiences of shame, pride, and an emotionally neutral experience (brought to mind by the word ‘summer’). We then used 17 of LIWC’s linguistic categories, and our newly created dictionaries of shame, guilt and pride, to statistically assess the manifestations of narcissism in language.

Narcissism’s Relation to Self-Conscious Emotions

Our first set of hypotheses was that narcissism would be positively related to the use of shame and hubristic pride words, and that this effect would be greatest in the shame condition. In contrast, we expected that narcissism would be unrelated to the use of authentic pride and guilt words across conditions. Support for these hypotheses was mixed. Our results revealed that individuals high in narcissism were somewhat more likely to use shame-related words when describing shame experiences. This finding is especially interesting given that narcissists tend to self-report lower levels of shame on explicit measures. According to theory, following threats to self-worth, narcissists are likely to experience shame. This shame is not experienced explicitly, but is regulated through suppression, externalization, and explicit self-aggrandizement. However, previous research using face-valid self-report measures has been unsuccessful in finding support

for this theory. Writing tasks are believed to uncover unconscious feelings and emotions, so they may be better able to reveal associations between narcissism and socially undesirable responses such as shame. Our findings thus support the role of unconscious shame in narcissistic self-esteem regulation and reflect the power of personal narratives to capture potentially unconscious aspects of emotional experience. Although replication is necessary before drawing firm conclusions, we suggest that language analysis may help identify shame that self-report methods cannot.

Contrary to our hypothesis, however, narcissism was not related to the use of hubristic pride words in the shame condition, but narcissism was associated with greater use of authentic pride words. There are several reasons why we believe this might be the case. First, perhaps in a private research setting where participants believed their confidentiality would be maintained, they were able to express their conscious shameful experiences, and narcissists' unconscious shame thus appeared in their writing without the commonly co-occurring hubristic pride. It may be that when others are present, those high in narcissism would revert to self-aggrandizement to regulate their shame and to "save face" with others. However, this explanation does not explain the increased use of authentic pride by narcissistic participants in the shame condition, and further research to investigate this finding is needed.

The relations between narcissism, guilt, and pride in the pride condition were also contrary to our expectations. Perhaps the social awareness of individuals high in narcissism may have been activated by the knowledge that someone would eventually read their stories, leading to higher usage of authentic pride words. It is also possible that, in the pride condition, narcissistic individuals, and perhaps all participants, recalled a situation where true pride (authentic pride as opposed to unwarranted, hubristic pride) was warranted and wrote about the

situation appropriately. This prompt encouraged participants to write about a positive prideful memory and our findings may reflect a softer side to narcissism; in a writing context, narcissistic individuals did not engage in their aggrandizing self-regulatory process (Tracy et al., 2009), but may have been able to feel truly proud about their actions. Research to confirm this explanation, and to examine the effects of writing about shame on usage of hubristic versus authentic pride words among narcissistic individuals demands further research and explanation.

Narcissism and Pronoun use

Our second hypothesis was that narcissism would be positively related to the use of the first-person singular pronoun “I”. Results did not support this hypothesis; instead, in the shame condition, there was a marginally significant *negative* relation between narcissism and use of the first person singular pronoun “I”. Interestingly, this relation was unique to the shame condition, in which average “I” usage was highest compared to the other two conditions. Thus, the experience of shame may have encouraged narcissists to avoid self-focused language that would attribute the shame to themselves. This is congruent with Tesser’s (1988) self-evaluation maintenance model, where in an effort to restore self-esteem, threatened narcissists react by reporting significantly more negative views of another. Morf and Rhodwalt (2001) similarly suggest that narcissists engage in “active failure avoidance” in the form of self-promotion. Taken together, these studies offer an explanation for the decreased use of the first-person singular pronoun “I” among individuals high in narcissism in a potentially threatening condition.

The positive association between narcissism and another first-person singular pronoun, “me”, approached significance in the neutral condition and was significant in the pride condition before controlling for self-esteem. This finding reflects the high self-referencing and self-focus of narcissistic participants. Instead of directly stating their role in the actions as the actor (e.g., I

won), they may have written about themselves in a more indirect manner (e.g., belongs to *me*, jealous of *me*). Additionally, narcissism in these two conditions was not related to first-person plural pronouns (e.g., our, we, us). By using more first-person singular pronouns as opposed to first-person plural, participants were able to single themselves out and take credit for a pride or neutral event instead of giving credit to the group (e.g., me vs. ours). This is consistent with the characteristic grandiose sense of self-importance and “uniqueness” of narcissism (American Psychiatric Association, 1994). Finally, consistent with previous literature, narcissism was not related to the use of second-person or third-person pronouns in any of the three prompt conditions (Raskin & Shaw, 1988).

Narcissism and the Use of Status Content Categories

We also investigated specific content categories in relation to narcissism, specifically looking at LIWC categories corresponding to status. By definition, narcissists tend to be overly concerned with power, wealth, and beauty (American Psychiatric Association, 2000; Sutin & Robins, 2005) and we were interested if this preoccupation would present through greater use of words related to friends (e.g., buddy, friend), money (e.g., cash) and sex (e.g., love, horny). Our results revealed that narcissists used status content categories in all three conditions, but the specific status category used by narcissistic participants differed by condition. Specifically, in the shame condition, narcissism was significantly positively associated with the use of money-related words. Money is related to the accumulation and ownership of material objects, and can function as a concrete measure of status and worth. This relation suggests that, when threatened, narcissists may turn to discussions of “cash” to defend their self-worth and maintain a positive self-image. Further examination of the role of money in the narratives of narcissists is an interesting avenue for future research.

In the neutral condition, narcissism was significantly positively related to the content categories of friends, sex, and money and moderately negatively associated with use of family-related words. Discussion of these content categories in a neutral condition suggests the extreme importance narcissistic individuals place on status as well as the essential quality these categories hold in narcissistic individuals' sense of self. Finally, narcissists' lack of family-word usage in neutral childhood memories may indicate that the family is not a source of status and is consistent with the idea that communal ties tend to be devalued among narcissists (Paulhus & John, 1998).

In the pride condition, narcissistic individuals were more likely to write about their friends and sexual experiences. Discussion of one's popularity, as well as sexual interpersonal relations and sexuality, may be sources of pride for narcissists, leading them to write about these topics when asked to recall a childhood experience of pride.

Narcissism and Other Linguistic Markers

The relation between affective processes and narcissism differed by condition. Results from the shame condition revealed a significant positive relation between anxiety and narcissism that was not present in the other two conditions. Perhaps writing about shame was a stressful experience for narcissists. This speculation is bolstered by the fact that narcissists used significantly fewer positive emotion words in the shame condition. Participants high in narcissism appear to have distanced themselves from the experience of shame, as evidenced by their greater use of filler words and lower use of "I". Filler words, in particular, suggest insecurity with a particular topic (Tausczik & Pennebaker, 2010). Narcissists may not have connected the experience with themselves, downplayed their negative feelings about the experience, or avoided talking about their feelings related to shame altogether.

In the pride condition, narcissism was unrelated to the use of words reflecting positive emotion, negative emotion, anxiety, anger or sadness. However, findings across conditions support the idea that narcissists feel anxiety when faced with shame, and that they attempt to keep a distance from their shame by avoiding discussion of their feelings about these past experiences. This anxiety and lack of positive emotion words only presented in the shame condition. Future research is needed to replicate these results.

Limitations and Future Directions

This study has several limitations that need to be taken into account when interpreting and generalizing our results. First, our sample size may not have been large enough to detect relatively small differences in language usage, particularly because the number of individuals who were using some categories of words was relatively small in some conditions. Thus, low power may have limited the strength and generalizability of our results. Second, we expected individuals to perceive a threat to the self when recalling an experience of shame, and we expected that this perceived threat would activate the narcissistic self-regulatory system of aggrandizement. However, we do not know whether narcissistic participants in our study in fact perceived this experience as threatening. Consequently, future research would benefit from the examination of a variety of ‘threat’ conditions and from checks to ascertain the effectiveness of these threats. For example, failure feedback could be used to elicit self-consciousness (Campbell Redder, Sedikides, & Elliot, 2000). Likewise, self-conscious emotions are highly contingent on situational factors, and it was impossible for us to control for extraneous influences that may have impacted our results.

Third, we used a word-count system to detect self-conscious emotions. Although our dictionaries were based on previously established scales of shame, guilt, authentic and hubristic

pride, we cannot be sure that our dictionaries captured these emotions in narratives. For this reason, and because the LIWC cannot detect self-conscious emotion *phrases*, future research examining narcissism through language might benefit from a more qualitative approach to measuring emotions.

Fourth, because the participants in our study were primarily Caucasian, research would benefit from cross-cultural work on narcissism and self-conscious emotions in written language. Although the NPI has been used and shown to be reliable in other cultures (e.g., Norway and Sweden, Svindseth et al., 2009) the experience and expression and experience of self-conscious emotions may vary across cultures (Mesquita & Karasawa, 2004). For instance, it is unclear whether narcissism would be positively associated with use of shame-related words in cultures that emphasize the importance and pro-social nature of shame (e.g., China, Edelstein & Shaver, 2007).

Finally, our study relied on college students, restricting generalizability to other age groups. There is evidence that narcissism decreases with age into later adulthood (Foster et al., 2003); perhaps the linguistic correlates of narcissism change as well. Given that the adverse effects of narcissism may accumulate over time (e.g., Campbell & Campbell, 2009; Cramer & Jones, 2008), future research could benefit by exploring the writing samples of older populations as well.

Despite its limitations, the current study is the first to investigate the relation between narcissism and written language and our findings open many avenues for future research. Our findings also have important theoretical implications, particularly that individuals high in narcissism are more likely to use shame-related words when describing shame-inducing experiences, suggesting an unconscious level of shame in the regulation of narcissism.

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Table 1

Rates of Word use Across Conditions

	<u>Shame</u>		<u>Neutral</u>		<u>Pride</u>		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Word count	173.18	69.37	175.87	73.22	168.35	65.29	2.41
SC emotions							
Shame	1.11 _a	1.39	.00 _b	.03	.03 _b	.14	100.44**
Guilt	.24 _a	.50	.03 _b	.15	.04 _b	.23	19.05**
Pride	.19 _a	.44	.36 _b	.49	1.31 _c	1.40	80.89**
Hubristic pride	.08 _a	.23	.18 _b	.36	.23 _b	.40	9.07**
Authentic pride	.02 _a	.12	.03 _a	.13	.23 _b	.50	24.97**
Pronoun use							
FP singular	11.11 _a	3.02	7.35 _b	3.20	9.79 _c	3.68	65.39**
I	6.61 _a	2.61	3.77 _b	2.28	5.65 _c	2.74	66.98**
Me	1.59 _a	1.25	.63 _b	.78	1.27 _c	1.23	35.59**
My	2.92	1.54	2.96	1.67	2.87	1.40	.13
FP plural	1.14 _a	1.46	2.87 _b	2.54	1.33 _a	1.58	48.43**
Second person	.12	.34	.20	.59	.16	.39	1.44
Third person	2.58 _a	1.96	1.06 _b	1.27	1.66 _c	1.90	32.08**
Affective processes							
Positive emotions	2.17 _a	1.52	4.39 _b	2.16	5.28 _c	2.35	104.57**
Neg emotions	3.77 _a	2.08	1.01 _b	1.28	.88 _b	.85	203.32**

Anxiety	1.59 _a	1.44	.30 _b	.60	.22 _b	.45	102.94**
Anger	.94 _a	1.10	.29 _b	.66	.21 _b	.44	46.15**
Sadness	.54 _a	.64	.16 _b	.33	.18 _b	.36	33.42**
Fillers	.26	.45	.19	.37	.19	.35	1.78
Content categories							
Family	1.54 _a	1.42	2.06 _b	1.89	1.09 _c	1.19	18.52**
Friends	.38 _a	.60	.69 _b	.78	.34 _a	.52	15.04**
Sexual	.11	.38	.16	.38	.17	.43	.97
Money	.28 _a	.69	.46 _b	.74	.20 _a	.43	7.62**

Note. * $p < .05$, ** $p < .01$. SC = Self-conscious, FP = First person, Neg = Negative

Table 2

Correlations Between Narcissism and Linguistic Categories in Three Prompt Conditions

	<u>Shame</u>	<u>Neutral</u>	<u>Pride</u>
	<i>r</i> (β)	<i>r</i> (β)	<i>r</i> (β)
Self-conscious emotions			
Shame	.13 ⁺ (.16 ⁺)	-.01 (.03)	-.04 (-.00)
Guilt	-.05 (-.07)	.00 (-.01)	.13 ⁺ (.15 ⁺)
Pride	.04 (.04)	.00 (.00)	.09 (.14 ⁺)
Hubristic pride	.09 (.09)	.03 (.02)	.11 (.13)
Authentic pride	.16* (.16 ⁺)	-.06 (-.06)	.09 (.12)
Pronoun use			
First person singular	-.06 (-.10)	-.04 (-.03)	.03 (-.01)
I	-.11 (-.15 ⁺)	-.06 (-.04)	-.08 (-.10)
Me	.05 (.11)	.13 ⁺ (.15 ⁺)	.16* (.13)
My	.02 (-.03)	-.06 (-.07)	.08 (.07)
First person plural	-.03 (-.08)	.05 (-.01)	.00 (-.00)
Second person	-.01 (-.01)	.07 (.10)	-.11 (-.11)
Third person	-.09 (-.04)	-.03 (-.02)	-.03 (-.03)
Affective processes			
Positive emotions	-.17* (-.16 ⁺)	.06 (.05)	.04 (.09)
Negative emotions	.06 (.08)	-.10 (-.13)	-.00 (.03)
Anxiety	.16* (.20*)	-.12 (-.18*)	-.04 (-.01)
Anger	.00 (-.00)	.04 (.03)	-.05 (.01)

Sadness	-.07 (-.07)	.00 (.02)	.02 (-.01)
Fillers	.17* (.16*)	.09 (.14)	-.06 (-.08)
Content			
Family	.00 (-.05)	-.13 ⁺ (-.14 ⁺)	.07 (.12)
Friends	-.10 (-.10)	.23** (.19*)	.25** (.21**)
Sexual	.01 (.05)	.17* (.19*)	.12 (.19*)
Money	.17* (.21**)	.17* (.16*)	-.07 (-.05)

Note. ⁺ $p < .10$, * $p \leq .05$, ** $p \leq .01$.

Appendix A

Shame and Guilt Dictionaries

	Shame		Guilt
Ashamed	Foolish	Accountable	Regretful
Degraded	Humiliated	Accusable	Remorseful
Disgraced	Mortified	Apologetic	Repentant
Dishonorable	Regretful	Blameworthy	Responsible
Distraught	Reproached	Dishonest	Selfish
Embarrassed	Shame	Fault	Sinful
Exposed		Guilty	Sorry
		Immoral	Wrong
		Liable	Unethical
		Nervous	

Appendix B

Authentic and Hubristic Pride Dictionaries

Authentic Pride		Hubristic Pride	
Accomplished	Motivated	Assuming	Narcissistic
Achieving	Outstanding	Arrogant	Over-confident
Attain	Productive	Best	Pompous
Challenging	Rewarding	Boastful	Self-centered
Complete	Satisfying	Bragging	Selfish
Constructive	Self-worth	Champion	Smug
Dignity	Successful	Cocky	Snobbish
Fulfilled	Valuable	Conceited	Stuck-up
Gratifying	Worthwhile	Domineering	Superior
Honor		Egotistical	Triumphant
		Flaunting	Undefeated
		Grandiose	Vain

Appendix C

Pride Dictionary

 Pride

Accomplished	Cocky	Fulfilled	Pleased	Successful
Achieving	Complete	Grandiose	Pompous	Superior
Arrogant	Conceited	Gratifying	Prevail	Triumphant
Assuming	Confident	Happy	Pride	Undefeated
Attain	Conquer	Honor	Productive	Vain
Beat	Constructive	Important	Rewarding	Valuable
Best	Defeat	Manage	Satisfying	Victorious
Boastful	Dignity	Motivated	Self-centered	Winning
Bragging	Dominate	Narcissistic	Self-worth	Worthwhile
Challenging	Egotistical	Outstanding	Selfish	
Champion	Flaunting	Over-confident	Smug	
