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Prioritizing Harm

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ABSTRACT

In this study, we examined if a self-report of trait spite, the Spitefulness Scale, retains the same associations with dark personality traits in individuals with severe mental illness. We also examine if reports on the Spitefulness Scale are correlated with observed spiteful behavior in a game developed to offer opportunities for spite. One hundred twenty individuals clinically diagnosed with psychotic spectrum disorders and receiving inpatient treatment at a state hospital participated in this study and completed measures of personality. The Spitefulness Scale retained its associations with measures of dark personality traits in individuals with psychosis. Spitefulness Scale scores were also related to a performance measure of spite and spite was evidenced by a significant proportion of participants across measures (20.8%–26.7%). These data suggest the presence of spite as it is understood in the general population in a significant subset of individuals with psychosis. Spite could be considered an independent personality trait and part of the family of dark personality traits.

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I show you to-day a face which the happiness of revenge makes young again. —Dumas (1999, p. 689)

When faced with challenges, many people seek solutions in which everyone gains. Some prioritize their own gains, whether or not this harms others; some prioritize helping others, whether or not it harms themselves. By definition, spiteful people prioritize harming others, whether or not it harms themselves. A classic dictionary defines *spite* as “malicious bitterness prompting to vexatious acts” (Fernald & Vizetelly, 1938). As this definition suggests, a spiteful person prioritizes harm to a target; feels wronged by the target and feels justified in inflicting harm; and will accept harm to self in pursuit of harm to the target (Hamilton, 1964; Krupp, 2013; Marcus, Zeigler-Hill, Mercer, & Norris, 2014). Recently, psychologists have developed a self-report measure of trait spite (Marcus et al., 2014). Although spite appears to be associated with psychopathology in a general population sample, there is limited evidence examining spite in individuals with severe mental illness (Marcus et al., 2014; Wischniewski & Brune, 2011). In this article, we extend the applicability of this measure to a population of hospitalized patients with psychotic disorders, and examine its relationship to a performance measure of spite.

Marcus et al. (2014) recently developed a self-report instrument of trait spite, the Spitefulness Scale. The authors noted that spiteful behavior, broadly defined, includes any vengeful acts that harm others, and that self-harm, if it occurs, is not a goal in itself. The scale’s 17 items describe situations in which a person acts spitefully and asks respondents how likely they are to behave as depicted. The items include three key features of spite: a sense of being wronged (e.g., “my neighbor complained

about the appearance of my front yard”); determination to cause harm to others (e.g., “to annoy him or her”); and willingness to accept harm (e.g., “make [my front yard] look worse”) to cause harm (Marcus et al., 2014). Of note, not all items required clear endorsement of willingness to accept self-harm, suggesting that the Spitefulness Scale measures a range of spiteful behavior.

The authors compared normally functioning individuals’ responses on the Spitefulness Scale to responses on measures of traits expected to be related to spitefulness. In a sample of undergraduate students, correlations were found between spite and a measure of general biopsychosocial distress, $r(388) = .44$, $p < .001$ (Marcus et al., 2014). Correlations were also found between spitefulness and self-focused traits such as Machiavellianism, $r(944) = .47$, $p < .001$; and aspects of psychopathy such as callous affect, $r(554) = .65$, $p < .001$, and interpersonal manipulateness, $r(554) = .48$, $p < .001$. As expected with a trait associated with callous disregard for others, a negative correlation with guilt-proneness, $r(944) = -.51$, $p < .001$, was also found (Marcus et al., 2014). These data are consistent with recent findings suggesting that spitefulness is negatively correlated with agreeableness, $r(434) = -.41$, $p < .001$, and conscientiousness, $r(434) = -.46$, $p < .001$ (Zeigler-Hill, Noser, Roof, Vonk, & Marcus, 2014), and positively correlated with dark personality features such as cold-heartedness, $r(584) = .58$, $p < .001$, and arrogant-calculating features, $r(584) = .38$, $p < .001$ (Southard, Noser, Pollock, Mercer, & Zeigler-Hill, 2015).

Dark personality traits is a label applied to traits that, although distinct from each other, generally share a focus on

self-benefit and a disregard for the needs of others. Recent work has suggested expansion and renaming of the original Dark Triad of narcissism, Machiavellianism, and psychopathy to a Dark Tetrad, adding sadism to the group of dark personality traits (Buckels, Jones, & Paulhus, 2013; Paulhus & Williams, 2002). Seminal work by Paulhus and Williams (2002) found correlations between psychopathy and narcissism, $r(243) = .50, p < .001$ (two-tailed); psychopathy and Machiavellianism, $r(243) = .31, p < .001$ (two-tailed); and between narcissism and Machiavellianism, $r(243) = .25, p < .001$ (two-tailed). Of note, dark personality traits are understood to describe a range of behavior, from subclinical to clinically disordered behavior (American Psychiatric Association, 2013; Lilienfeld & Andrews, 1996; Morf & Rhodewalt, 2001). It could be that spite is a distinct personality trait that might be considered an appropriate addition to the family of dark personality traits.

Although high levels of dark traits appear to be relatively rare in general population samples, individuals with severe mental illness appear to be at increased risk of problems. For example, antisocial personality disorder (APD) is characterized by psychopathic traits including callous affect and interpersonal manipulateness. The prevalence of APD in the general population has been estimated at 0.2% to 3.3%. The prevalence of clinically significant problems with narcissistic traits (narcissistic personality disorder) has also been estimated at low levels (0%–6.2%) in community samples (American Psychiatric Association, 2013). However, individuals with psychosis appear to have a greater chance of problems with dark traits. Moore, Green, and Carr (2012) reported increased likelihood of clinically significant problems with antisocial traits, $OR = 1.57, 95\% CI [1.41, 1.74]$. In the healthy control group, 2.4% of individuals scored above a threshold suggestive of clinical problems with antisocial traits. In the group of individuals with schizophrenia, 10.1% scored above the threshold, and mean scores for this dimension were also higher, $t(1,031) = -10.59, p < .001$ (Moore et al., 2012). Reported means and standard deviations (Moore et al., 2012) yielded an effect size of $d = .64$. These reports suggest it might be important to examine if spitefulness can be measured in individuals with psychosis.

Behavioral economists have also studied spite. To do so, they have created games in which individuals must make choices that result in monetary gains and losses to themselves and other participants. In the Ultimatum Game (UG), an individual offers another player a take-it-or-leave-it split. The other player can choose to accept the split (in which case all players keep their allotments), or reject the split (in which case all players get nothing). Rejecting the split is interpreted as spiteful behavior based on the understanding that the player feels wronged by the terms of the split and is willing to give up the offered allotment to assure that the offering individual gets nothing (Wischniewski & Brune, 2011). In a Dictator Game with Punishment (DGP), a player must accept a split determined by the “dictator.” In the subsequent rounds, the player has the opportunity to invest funds to cause the dictator to lose resources. Punishing the dictator is interpreted as spiteful behavior based on the understanding that the player feels wronged by the split and is therefore willing to expend resources to reduce the dictator’s total allotment (Falk, Fehr, & Fischbacher, 2008; Fehr, Glatzle-Rutzler, & Sutter, 2013). However, their association with self-report measures of spite is unknown.

In this study, we examined if the self-report Spitefulness Scale (Marcus et al., 2014) retains the same associations with dark personality traits in individuals with severe mental illness. We hypothesize that the associations that were demonstrated in a general population sample will be supported. In addition, we examined the extent to which reports on the Spitefulness Scale are correlated with observed spiteful behavior in a game adapted to offer opportunities for spite. We hypothesize that self-reported spite will be associated with spiteful behavior.

Method

Participants

One hundred and twenty individuals clinically diagnosed with psychotic spectrum disorders and receiving inpatient treatment at a state hospital participated in this study. The study was approved by both the Augusta University and Department of Public Health institutional review boards. Diagnoses were obtained from electronic medical records and were made by psychiatrists based on semistructured clinical interviews and collateral reports. Diagnosis was based on the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* criteria (*DSM-IV* or *DSM-5*) used by the hospital at the time of the individual’s admission. Participants’ hospital stays averaged 44 days ($SD = 108$). During hospitalization, individuals received cognitive behavioral therapy and medication management for symptoms of mental illness as part of their regular care. Participant demographics are described in Table 1.

Measures

Spitefulness Scale

The Spitefulness Scale is a 17-item self-report scale that measures trait spite. Each item is rated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and responses are summed to yield a total score. In this sample, internal consistency for the Spitefulness Scale was $\alpha = .84$. The Spitefulness Scale has been shown to possess adequate psychometric properties in general population samples ($\alpha = .94$; Marcus et al., 2014).

Table 1. Participant characteristics.

Group	Number	Percent
Gender		
Female	50	42%
Male	70	58%
Total	120	100%
Ethnicity		
White	54	45%
African American	61	51%
Hispanic/Latino(a)	2	2%
Other	3	2%
Age		
Minimum	18	
Maximum	64	
M (SD)	35 (12)	
Diagnosis		
Schizophrenia	32	26.70%
Schizoaffective	31	25.80%
Bipolar/psychotic features	29	24.20%
Depression/psychotic features	8	6.70%
Other psychosis	20	16.7%

Gummy Game

The Gummy Game is a performance measure of trait spite and an adaptation of an economic choice game used with children (Fehr et al., 2013). In repeated rounds of the Gummy Game, individuals are asked to choose between two possible two-way allocations of a situationally meaningful asset, gummy treats. The identity of the other recipient is not known to minimize possible situational effects on spiteful behavior.

Participants are shown a bag of gummies, two clear cups, and the game board. They are then told, "Here are some gummies. You will choose which gummies you keep and which will be given to a peer. You will not know which peer will get the gummies, and the peer will not know you chose them." To provide concrete visual representations of the choices and the cumulative total of gummies selected, gummies are placed on the game board, participants indicate a choice, and the chosen allocations are placed in clear cups. Participants could visually track their and the anonymous other player's total gummies in these cups throughout the games.

In the first phase of the Gummy Game, participants choose between equitable distributions and confirm understanding of the game. In the second phase, participants are given only choices in which they receive fewer gummies than their peer (three forced inequality rounds). The third phase consists of two rounds of equitable distribution choices. In the fourth phase, participants are given the opportunity to respond spitefully.

In each of the four rounds of this spitefulness phase, participants can choose to either distribute gummies equally or give fewer to their peer. In the two minimally spiteful choices, participants receive the same amount of gummies regardless of how many are assigned to the peer. In the two maximally spiteful choices, participants must accept fewer gummies for themselves to give less to a peer. Minimally spiteful choices are scored 1 point each and maximally spiteful choices are scored 2 points each, with a possible maximum total of 6 points.

Self-Report Psychopathy–Version III

The Self-Report Psychopathy–Version III (SRP–III) is a self-report measure of subclinical psychopathy. Sixty-four items are rated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and summed to yield a total score ($\alpha = .91$) and four subscale scores: Interpersonal Manipulation ($\alpha = .78$), Callous Affect ($\alpha = .68$), Erratic Life Style ($\alpha = .79$), and Anti-Social Behavior ($\alpha = .77$). Alphas for the SRP–III reported here are from this study. The SRP–III subscales and total score have been previously reported to have adequate psychometric properties (Paulhus, Neumann, & Hare, 2015).

Test of Self-Conscious Affect–Version 3 Short Form

The Test of Self-Conscious Affect–Version 3 Short Form (TOSCA–3S) is a self-report measure of self-conscious negative emotions including shame, guilt, and externalization (e.g., blaming others). Eleven items are rated on a scale ranging from 1 (*not likely*) to 5 (*very likely*) and summed to produce subscale scores (e.g., Shame, Guilt, and Blame Others). TOSCA Guilt ($\alpha = .75$) is a measure of tendency to make amends that is associated with mild and adaptive forms of guilt. TOSCA Shame ($\alpha = .77$) is a measure of tendency to engage in maladaptive,

global negative self-evaluation. Blame Others ($\alpha = .75$) is a measure of tendency to blame others for one's mistakes. Alphas for the TOSCA–3S reported here are from this study. The short version Shame and Guilt subscales have been previously reported to be highly correlated with the corresponding long-version subscales (.94 and .93), and to have adequate reliability and validity (Giner-Sorolla, Piazza, & Espinosa, 2011; Luyten, Fontaine, & Corveleyn, 2002; Tangney & Dearing, 2002).

Procedure

Individuals clinically diagnosed as having psychotic spectrum disorders and judged competent to participate were identified by psychology and nursing staff, approached on the inpatient units, and participated in an informed consent process. The ability of individuals to understand the consent process was assessed by the nursing staff using a modified version of the UCSD Brief Assessment of Capacity to Consent (UBACC; Jeste et al., 2007). Individuals achieving UBACC scores of $\geq 10/14$ were included in the study. Participants' intellectual functioning was assessed using the Wechsler Abbreviated Scale of Intelligence–II (WASI–II; Wechsler, 2011), and individuals with an estimated IQ (EIQ) suggestive of intellectual disability ($\text{EIQ} \leq 70$) were excluded from the study. No significant differences were found in sex, age, ethnicity, or diagnosis between groups agreeing and declining to participate, nor between groups who agreed to participate and were included and excluded from the study. Self-report and performance measures of personality were administered to individuals included in the study. To compensate participants for their time and effort, \$15 was deposited into each participant's patient account.

Results

Distribution of spite

Distribution for Spitefulness Scale total scores were examined. Obtained total scores ranged from 17 to 71 in a possible range of 17 to 85 ($M = 33.15$, $SD = 12.26$). Of note, increased scores could be obtained by either responding with choices indicating less disagreement with spiteful statements (2 vs. 1 rating) or strongly agreeing (e.g., 4 or 5 rating) with a few spiteful statements. We chose to focus on the number of 5 ratings. The number of maximally spiteful responses (i.e., 5 rating) given by each participant was calculated as an alternative indication of spitefulness. Distribution of Spitefulness Scale 5 ratings was graphed (Figure 1); 20.8% of respondents reported three or more maximally spiteful responses (Marcus Spite; $M = 1.83$, $SD = 2.47$). Distribution of Gummy Game scores was also graphed ($M = 1.37$, $SD = 1.66$), and 26.7% of respondents scored 2 or higher (Gummy Spite) on this measure (Figure 2). Scores of 2 were obtained by making either two minimally spiteful choices or one maximally spiteful choice.

Correlates of the Spitefulness Scale

The Marcus Spitefulness Scale was found to have correlations in the expected direction (Marcus et al., 2014) with the SRP–III subscales and total score (Table 2). A negative correlation was

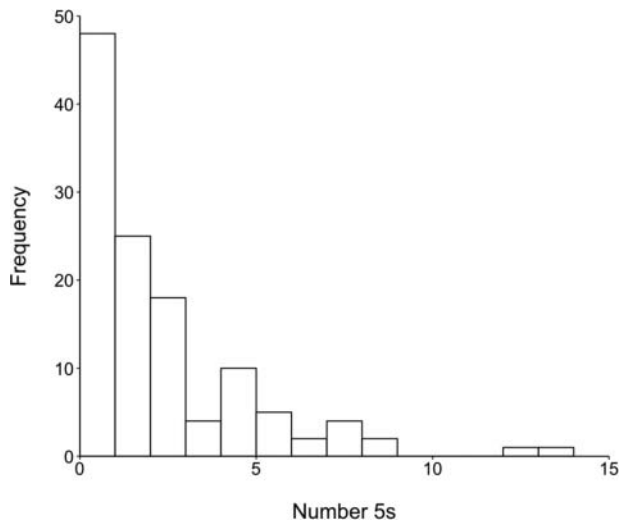


Figure 1. Distribution of Spitefulness Scale maximally spiteful responses.

found with the TOSCA-3S Guilt subscale; a positive correlation was found with the TOSCA-3S Blame Other subscale.

Association of self-report and performance trait spite measures

Association between Marcus spite (three or more scored 5) and Gummy Spite (total score of 2 or more) was examined through chi-square analysis. Association between self-report and performance trait spite measures was significant, $\chi^2(1, N = 120) = 10.36, p \leq .001, \phi = 0.29$ (Table 3).

Discussion

We examined if the self-report Spitefulness Scale retains the same associations with dark personality traits in individuals with severe mental illness as was found in the general population. We found that individuals with psychosis responded in a manner that produces a similar pattern and size of correlations with dark personality traits as were found in university and general population samples (Marcus et al., 2014). These are the first data suggesting that spitefulness can be measured in

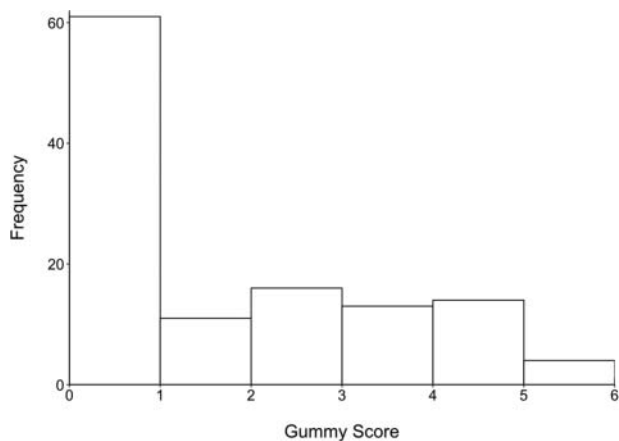


Figure 2. Distribution of Gummy Game scores.

Table 2. Correlates of the Spitefulness Scale.

Criterion	r [95% CI]	p (two tailed)
Self-Report Psychopathy Scale III		
Callous affect	0.53 [0.38, 0.64]	$p \leq .01$
Interpersonal manipulation	0.54 [0.40, 0.65]	$p \leq .01$
Erratic lifestyle	0.32 [0.15, 0.48]	$p \leq .01$
Antisocial behavior	0.33 [0.16, 0.48]	$p \leq .01$
Total score	0.51 [0.36, 0.63]	$p \leq .01$
Test of Self Conscious Affect		
Shame	0.13 [-0.05, 0.30]	$p = .15$
Guilt	-0.20 [-0.36, -0.02]	$p \leq .05$
Blame others	0.35 [0.18, 0.50]	$p \leq .01$

individuals with severe mental illness, and they suggest that spitefulness might have relatively stable characteristics in the presence of mental illness. However, replication and further work is necessary.

In addition, we examined the extent to which reports on the Spitefulness Scale are correlated with observed spiteful behavior in a game adapted to offer opportunities for spite. Before making this comparison, we closely examined the scoring on our measures. In the absence of published work suggesting clinically significant cutoffs or association of scores and outcome measures, we considered how scores corresponded with behaviors that represent spiteful responding. As discussed earlier, we noted that total scores above 20 on the Spitefulness Scale could be obtained by both by individuals denying spitefulness and by individuals strongly endorsing some spitefulness. It is possible that the total score represents a very heterogeneous sample of individuals.

To clarify which individuals strongly endorsed spitefulness, we identified an alternate scoring system for the Spitefulness Scale, the number of maximally spiteful responses. In making this choice, we were influenced by previous findings in a general population sample suggesting that individuals are likely to behave consistently. Kimbrough and Reiss (2012) reported that in an economic game “73.3% of our subjects [from a general population sample] display consistent levels of (non-) spitefulness” (Kimbrough & Reiss, 2012, p. 7).

For the Spitefulness Scale, maximally spiteful responses were represented by an item score of 5. We observed that individuals rating one or two items as a 5 could potentially have misunderstood the two reverse-scored items. Therefore, we identified highly spiteful individuals as those endorsing three or more maximally spiteful responses. For the Gummy Game, we identified highly spiteful people as individuals who either consistently selected minimally spiteful allocations in which they harmed the other player without getting less for themselves, or who selected an allocation in which they gave up possible gain

Table 3. Association of self-report and performance measures of trait spite.

		Marcus No	spite Yes
Gummy spite	No	62	10
	Yes	29	19

Note. $\chi^2(1, N = 120) = 10.36, p \leq .001, \phi = 0.29$. Marcus spite represents individuals who report 3 or more items scored 5 on the Spitefulness Scale; Gummy spite represents individuals who obtained a Gummy Game Total score of 2 or more.

to ensure that the other player received less. Among individuals with psychosis, spitefulness appeared to be present in 20.8% of participants as measured by the Spitefulness Scale and in 26.7% of participants as measured by the Gummy Game. Of note, our findings are consistent with previous work using economic games in general population samples. Kimbrough and Reiss (2012) reported, “we find that 13/45 [28.9%] subjects are maximally spiteful at least 50% of the time” (p. 7). Levine’s (1998) findings suggested that 20% of individuals in a general population sample behave spitefully. Our work contributes to these findings by demonstrating that individuals who were likely to report spitefulness were also likely to behave spitefully.

There are limitations to this study. Although we obtained the mean and distribution of spitefulness in our sample, published data from a general population sample are not available with which to make a comparison. Future work making this comparison might provide a better understanding of the distribution of spitefulness, and the effects, if any, of the presence of a psychotic disorder. Also, a measure of psychotic symptom type and severity was not included, and it is unknown to what extent separate features of psychosis contributed to the findings. Further, spitefulness is a criterion for other clinical disorders (oppositional defiant disorder) and might be present in pediatric populations (American Psychiatric Association, 2013). Future reports could compare spiteful behavior in individuals with and without diagnosis suggesting the presence of spite. Finally, associations between spitefulness and behaviors in the community have yet to be reported and would be useful in understanding the importance of spite in clinical practice.

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