



Spitefulness and moral values



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ARTICLE INFO

Article history:

Received 29 September 2014

Received in revised form 22 December 2014

Accepted 29 December 2014

Keywords:

Spite

Morality

Personality

Dark

Harm

Fairness

ABSTRACT

The relationship between spitefulness and an individual's sense of morality or lack thereof has been neglected in studies of personality. It seems probable that individuals with higher levels of spitefulness exhibit fewer moral concerns relative to those with lower levels of spite. To examine associations between spitefulness and moral concerns, 436 community participants completed self-report measures concerning their spitefulness, basic personality dimensions, and moral concerns. Spitefulness was negatively associated with individualizing values (i.e., sensitivity to harm and fairness) such that spiteful individuals were less concerned about issues related to avoiding harm or injustice to others when making moral judgments. However, spitefulness was not simply associated with a general reduction in moral concerns as it was not significantly associated with binding values (i.e., concerns about ingroup loyalty, authority, and purity).

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1. Introduction

Spitefulness is generally defined in behavioral economics and evolutionary biology as the willingness of an individual to incur a cost to oneself in order to inflict harm on another even in the absence of any direct benefits for doing so (Fehr & Fischbacher, 2005; Smead & Forber, 2013). One of the reasons for interest in spite is that – at least on the surface – it appears to contradict some of the basic assumptions of economics and evolutionary theory (see Marcus & Norris, *in press*, for an extended discussion). Spiteful individuals will sometimes sacrifice benefits or incur costs in order to harm someone else, which suggests that the motivations of these individuals are more complex than simply accruing immediate benefits and avoiding immediate costs. Moral concerns may contribute to the motivation to behave spitefully in that spiteful individuals may be willing to suffer harm to themselves in order to harm others because they believe that they are righting a wrong or upholding a moral precept. For example, the phrase “cutting off your nose to spite your face” has its origin in medieval nuns who literally cut off their own noses in order to spite invading barbarians who had intended to rape them.

Although spitefulness has been largely neglected by the psychological literature, Marcus, Zeigler-Hill, Mercer, and Norris (2014) recently developed a self-report measure of spitefulness in order to better understand individual differences in spitefulness. Scores on this Spitefulness Scale have been found to be associated with a range of outcomes including aggression, low levels of guilt, and “dark” personality features such as psychopathy (e.g., Marcus et al., 2014). Taken together, these studies suggest that individuals who report high levels of spitefulness often behave in an aggressive and antagonistic manner with minimal apparent remorse. This pattern may be at least partially explained by the fact that individuals with high levels of spitefulness experience limitations in their capacity for understanding the mental states of other individuals (Ewing, Vonk, Mercer, Noser, & Zeigler-Hill, 2014). For example, spitefulness was negatively associated with performance on various measures of perspective-taking, empathy, and emotional intelligence. Deficits in perspective-taking may contribute to the behavioral patterns that accompany spitefulness.

1.1. Moral concerns

Spite has been referred to as “the shady relative of altruism” (Smead & Forber, 2013, p. 698), and it is the presumed moral dimension of spitefulness that may distinguish it from other antagonistic or aggressive traits. Therefore, research on morality and moral concerns may be directly relevant to understanding

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spitefulness. Studies concerning moral judgments and decision-making have largely focused on issues of harm or fairness. Morality, however, extends beyond issues of harm or fairness to also encompass concerns such as loyalty, respect, and spiritual purity (see Graham et al., 2011, for a review). This broadening of the conceptualization of morality has led to the development of the Moral Foundations Theory (Haidt & Graham, 2007; Haidt & Joseph, 2004), which argues that individuals make moral judgments based on the relative importance that they place on two forms of moral values: *individualizing values* and *binding values*. Individualizing values are the “traditional” moral concerns that pertain to the rights and welfare of individuals. The individualizing value system is composed of two basic moral foundations referred to as *harm/care* (i.e., minimizing harm to other individuals) and *fairness/cheating* (i.e., maximizing justice and equality). In contrast, binding values refer to concerns that are related to the maintenance of social order and group cohesion. The binding value system is composed of three basic moral foundations referred to as *ingroup/betrayal* (i.e., emphasizing the importance of ingroup loyalty), *authority/disrespect* (i.e., respect for social hierarchy and status), and *purity/degradation* (i.e., avoiding biological or social contaminants). Individualizing values serve to suppress selfish behavior by focusing on individuals as the source of moral values, whereas binding values function to limit selfishness by emphasizing the importance of roles and duties. These values can thus serve an adaptive function in promoting group cohesion which is an important component of cooperative societies. It is important to note that individualizing and binding values are not mutually exclusive. Rather, individuals simply differ in the extent to which they rely on these values when they consider moral issues.

Much of the previous research concerning Moral Foundations Theory has focused on political issues (e.g., Haidt & Graham, 2007). However, studies have recently begun to examine the connections between moral values and personality traits. For example, neuroticism is positively associated with both individualizing and binding values, whereas other Big Five personality dimensions are either positively associated with individualizing values (i.e., agreeableness and openness) or binding values (i.e., extraversion and conscientiousness; Hirsh, DeYoung, Xu, & Peterson, 2010; Lewis & Bates, 2011).

Researchers have also become interested in the associations that “dark” personality features have with moral values (e.g., Djeriouat & Trémolière, 2014; Noser et al., 2015). These dark personality features refer to a wide range of potentially aversive aspects of personality such as the tendency to manipulate, deceive, or exploit others (see Zeigler-Hill & Marcus, *in press*, for a review). Taken together, the results of these studies have shown that many dark personality features (e.g., psychopathy) are negatively associated with individualizing values, which suggests that individuals who possess these aversive personality features have relatively little concern for protecting others from harm or injustice when they are considering moral issues. Given the positive associations between self-reported spitefulness and other dark personality features (e.g., psychopathy, Machiavellianism, narcissism) as well as its negative association with agreeableness (Marcus et al., 2014), we hypothesized that spitefulness will also be negatively associated with individualizing values, especially those involving harm/care.

1.2. Overview and predictions

The present study examined the associations that spitefulness has with both individualizing and binding values. The participants completed measures concerning their spitefulness, basic personality dimensions, and moral concerns. We included basic personality dimensions to assess whether spitefulness explained unique

variance in moral values beyond that which is accounted for by basic personality dimensions as assessed using the HEXACO model of personality (Ashton & Lee, 2007, 2009; Lee & Ashton, 2004). The HEXACO is a six-factor model of personality that includes variants of the Big Five dimensions of personality as well as an honesty-humility dimension that captures the degree to which individuals exhibit fairness, sincerity, and modesty. Three of the HEXACO dimensions (i.e., extraversion, conscientiousness, and openness) closely resemble their Big Five counterparts, whereas emotionality (which is equivalent to “neuroticism” in the Big Five model) and agreeableness reflect slightly rotated versions of their Big Five counterparts (Ashton, Lee, & de Vries, 2014; Lee & Ashton, 2012). We expected to replicate previous results such that emotionality would be positively associated with both individualizing and binding values, agreeableness and openness would be positively associated with individualizing values, and extraversion and conscientiousness would be positively associated with binding values (Hirsh et al., 2010; Lewis & Bates, 2011). Previous research has not examined the connection between the honesty-humility dimension of the HEXACO model and moral values, but we expected that honesty-humility would be positively associated with individualizing values because this personality dimension concerns fairness and sincerity and has been shown to be positively associated with political liberalism (Chirumbolo & Leone, 2010), which, in turn, is linked with individualizing values (e.g., Hirsh et al., 2010).

One advantage of using the HEXACO model is that there has been considerable speculation concerning the likely adaptive trade-offs for higher and lower levels of each dimension during the course of human evolution (e.g., Ashton & Lee, 2007). For example, agreeableness and honesty-humility have close ties with reciprocal altruism and cooperation (e.g., Ashton & Lee, 2007; Lee & Ashton, 2012). Agreeableness captures the extent to which an individual is willing to cooperate with someone else even if that person is not fully cooperative or even possibly exploitative (Ashton et al., 2014). In contrast, honesty-humility reflects a willingness to cooperate with another person even if the individual has the opportunity to exploit or dominate others in their social environments (Ashton et al., 2014). For example, individuals with high levels of honesty-humility have been shown to be less likely to engage in mate retention tactics that involve manipulating, deceiving, or exploiting their romantic partners (Holden, Zeigler-Hill, Pham, & Shackelford, 2014). In addition to its connection with reciprocal altruism, honesty-humility is associated with sensitivity to sexual and moral disgust (Tybur & de Vries, 2013) which may additionally contribute to moral sensibilities in a societal context. Thus, the HEXACO model may have a considerable advantage over the Big Five model when examining moral values.

The prediction that spitefulness would be negatively associated with individualizing values is consistent with previous research indicating that spiteful individuals are hostile, antagonistic, and experience relatively low levels of guilt (Marcus et al., 2014), which are features that have been shown to be associated with relatively little concern about situations that involve suffering and unfairness for others (e.g., Djeriouat & Trémolière, 2014; Noser et al., 2015). This prediction is also consistent with the way spite has been operationalized in previous studies. For example, the spiteful strategy in the Ultimatum Game is for a participant to make only unfair offers to one's partner but to reject unfair offers that are made by the partner (e.g., Smead & Forber, 2013). That is, spiteful individuals may be very concerned with how they are treated with regard to fairness and lack of harm, but they may have relatively little concern for the treatment of others. Although we were uncertain about the potential connection between spitefulness and binding values, we thought that spitefulness may be positively associated with binding values due to a desire to enforce these individuals'

perception of social order. For example, a spiteful individual may drive faster (and increase his or her own risk of being involved in an accident) in order to prevent another driver from passing illegally on the highway.

2. Method

2.1. Participants and procedure

Participants were 436 community members residing in the United States recruited using Mechanical Turk (MTurk). Participants (218 men, 217 women, and one undisclosed) were asked to complete measures concerning spitefulness, basic personality dimensions, and moral concerns – along with other measures that are not relevant to the present study (e.g., self-esteem level) – via a secure website. All participants completed the measures in the following order: basic personality dimensions, spitefulness, and moral concerns. The mean age of the participants was 35.32 years ($SD = 10.66$) and their racial/ethnic composition was 75% White, 8% Black, 8% Asian, 7% Hispanic, and 2% other.

2.2. Measures

2.2.1. Spitefulness

Spitefulness was assessed using the Spitefulness Scale (Marcus et al., 2014), which is a 17-item instrument designed to measure the willingness of a participant to engage in behaviors that would harm another but that would also entail potential harm to oneself. This harm could be social, financial, physical, or an inconvenience (e.g., “I would be willing to take a punch if it meant that someone I did not like would receive two punches”). Participants were asked to rate their level of agreement with the items of the Spitefulness Scale using scales that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The Spitefulness Scale has been shown to possess adequate psychometric properties (e.g., Marcus et al., 2014) and the internal consistency for this instrument was .91 in the present study.

2.2.2. Basic personality

Basic personality dimensions were assessed with the HEXACO-60 (Ashton & Lee, 2009) which is a 60-item measure designed to assess basic personality using six dimensions: *honesty-humility* (10 items; e.g., “I wouldn’t use flattery to get a raise or promotion at work, even if I thought it would succeed” [$\alpha = .78$]), *emotionality* (10 items; e.g., “I sometimes can’t help worrying about little things” [$\alpha = .82$]), *extraversion* (10 items; e.g., “In social situations, I’m usually the one who makes the first move” [$\alpha = .86$]), *agreeableness* (10 items; e.g., “I rarely hold a grudge, even against people who have badly wronged me” [$\alpha = .83$]), *conscientiousness* (10 items; e.g., “I often push myself very hard when trying to achieve a goal” [$\alpha = .81$]), and *openness to experience* (10 items; e.g., “I would enjoy creating a work of art, such as a novel, a song, or a painting” [$\alpha = .81$]). Participants were asked to rate their level of agreement for each item using scales that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The HEXACO-60 has been found to possess adequate psychometric properties (e.g., Ashton & Lee, 2009).

2.2.3. Moral concerns

Moral concerns were assessed using the Moral Foundations Questionnaire (Graham et al., 2011). The Moral Foundations Questionnaire is a 30-item, two-part instrument that was developed to assess the five basic foundations of morality: harm/care (6 items; e.g., “Compassion for those who are suffering is the most crucial virtue”), fairness/cheating (6 items; e.g., “When the government makes laws, the number one principle should be ensuring that everyone is treated fairly”), ingroup/betrayal (6 items; e.g., “People

should be loyal to their family members, even when they have done something wrong”), authority/disrespect (6 items; e.g., “Respect for authority is something all children need to learn”), and purity/degradation (6 items; e.g., “People should not do things that are disgusting, even if no one is harmed”). These five dimensions cluster into two higher-order factors known as *individualizing values* (harm/care, fairness/cheating; $\alpha = .79$) and *binding values* (ingroup/betrayal, authority/disrespect, purity/degradation; $\alpha = .90$). Higher scores for individualizing values indicate that respondents report more concern with making moral decisions that may result in less harm and fairer treatments of others. Higher scores for binding values indicate that respondents report placing greater weight on ingroup loyalty, respect for authority, and a desire for purity when making moral decisions. Previous studies have shown that these two higher order factors possess adequate discriminant validity (e.g., Graham, Haidt, & Nosek, 2009).

3. Results

The correlations that spitefulness and the HEXACO dimensions had with moral values are presented in Table 1. Focusing on coefficients of at least a moderate effect size (i.e., .3 or greater), we found that spitefulness had a negative association with individualizing values, whereas honesty-humility and conscientiousness had positive associations with individualizing values. Openness to experience had a negative association with binding values.

The present study used hierarchical multiple regression analyses to examine the unique associations that spitefulness and the HEXACO dimensions had with individualizing and binding values. Individualizing and binding values were regressed onto the HEXACO dimensions and spitefulness. The HEXACO personality dimensions were entered on Step 1 with spitefulness entered on Step 2 so that we could examine the extent to which spitefulness explained variance in moral values beyond that which was accounted for by the HEXACO dimensions of personality. The results of these analyses are displayed in Table 2.

3.1. Individualizing values

The analysis concerning individualizing values revealed the following effects for the HEXACO dimensions: honesty-humility ($\beta = .16$, $t[429] = 3.36$, $p = .001$), emotionality ($\beta = .24$, $t[429] = 5.47$, $p < .001$), agreeableness ($\beta = .13$, $t[429] = 2.65$, $p = .01$), conscientiousness ($\beta = .26$, $t[429] = 5.79$, $p < .001$), and openness ($\beta = .23$, $t[429] = 5.36$, $p < .001$). In addition, spitefulness emerged as a predictor of individualizing values on Step 2 after controlling for the HEXACO dimensions ($\beta = -.28$, $t[428] = -5.41$, $p < .001$). Taken together, these results show that individualizing values were more important to those individuals who reported higher levels of honesty-humility, emotionality, agreeableness, conscientiousness, and openness as well as lower levels of spitefulness¹.

3.2. Binding values

The analysis concerning binding values revealed the following effects for the HEXACO dimensions: emotionality ($\beta = .24$, $t[429] = 5.38$, $p < .001$), extraversion ($\beta = .21$, $t[429] = 4.15$, $p < .001$), agreeableness ($\beta = .14$, $t[429] = 2.85$, $p = .01$), conscientiousness ($\beta = .11$, $t[429] = 2.37$, $p = .02$), and openness ($\beta = -.36$, $t[429] = -8.22$, $p < .001$). The association between spitefulness and binding values did not reach significance ($\beta = .06$,

¹ We also examined the associations that spitefulness had with the two dimensions that comprise individualizing values: harm/care and fairness/cheating. Spitefulness had similar associations with both of these dimensions so we only report its association with individualizing values in the text in the interest of parsimony.

Table 1
Intercorrelations and descriptive statistics.

	1	2	3	4	5	6	7	8	9
1. Spitefulness	–								
2. Honesty-humility	–.43***	–							
3. Emotionality	–.07	.08	–						
4. Extraversion	–.19***	.00	–.32***	–					
5. Agreeableness	–.41***	.40***	–.18***	.36***	–				
6. Conscientiousness	–.46***	.22***	–.03	.30***	.20**	–			
7. Openness to experience	–.20***	.11*	–.07	.11*	.12**	.21***	–		
8. Individualizing values	–.46***	.31***	.23***	.01	.20***	.34***	.29***	–	
9. Binding values	–.06	.07	.18***	.17***	.16***	.12*	–.31***	.13**	–
<i>M</i>	2.19	3.34	3.16	3.12	3.29	3.78	3.63	4.60	3.40
<i>SD</i>	0.68	0.71	0.72	0.76	0.70	0.62	0.71	0.71	0.93

* $p < .05$.** $p < .01$.*** $p < .001$.**Table 2**
Regressions of individualizing and binding values on HEXACO personality dimensions and spitefulness.

	Individualizing values			Binding values		
	R^2	ΔR^2	β	R^2	ΔR^2	β
<i>Step 1</i>	.28***	.28***		.23***	.23***	
Honesty-humility			.16***			.01
Emotionality			.24***			.24***
Extraversion			–.07			.21***
Agreeableness			.13**			.14**
Conscientiousness			.26***			.11*
Openness to experience			.23***			–.36***
<i>Step 2</i>	.33***	.05***		.23***	.00	
Spitefulness			–.28***			.06

* $p < .05$.** $p < .01$.*** $p < .001$.

[428] = 1.17, $p = .24$). Taken together, binding values were more important to those individuals who reported higher levels of emotionality, extraversion, agreeableness, and conscientiousness as well as lower levels of openness.

4. Discussion

The present study examined the connections between spitefulness and moral concerns. More specifically, we examined whether spitefulness had unique associations with individualizing and binding values after controlling for basic personality dimensions. Spitefulness did not have a unique association with binding values, but the expected negative association between spitefulness and individualizing values did emerge. That is, individuals with high levels of spitefulness reported relatively low levels of concern about avoiding harm to others or treating others fairly when considering moral issues. These findings suggest the intriguing possibility that individuals with high levels of spitefulness are not concerned about treating others fairly or avoiding harm to others even though they may be very concerned about their own treatment by others (e.g., being treated fairly, not being harmed). This pattern is consistent with the results of recent studies showing that spitefulness is associated with socially antagonistic behavior (e.g., Marcus et al., 2014), low levels of guilt (Marcus et al., 2014), and an impaired capacity to accurately understand the mental states of others (Ewing et al., 2014). Taken together, the results of these recent studies suggest the possibility that individuals with high levels of spitefulness may have relatively little concern as to whether their behavior is harmful or unfair to others, which may be partially due to deficits in understanding the thoughts and feelings of others.

The present results may also have implications for our understanding of the origins of spitefulness. Smead and Forber (2013) have referred to spite as “the shady relative of altruism” (p. 698) because spitefulness and altruism both involve a willingness to incur a cost to the self in order to impact the outcomes experienced by other individuals. In altruism, the costs are incurred in order to confer a benefit on another individual. In contrast, spiteful individuals are willing to incur costs in order to inflict harm on someone else. At first glance, the costs associated with altruism and spitefulness make them difficult to explain from an evolutionary perspective. However, altruistic acts can be explained via the concepts of inclusive fitness or reciprocity (Hamilton, 1964). Later, Hamilton (1970) and Price (1970) independently speculated that spiteful behavior could have evolved through a conceptually similar process. For example, spitefulness may have evolved because the threat of spiteful retaliation led others to treat spiteful individuals more fairly. Support for this idea was recently found using a computer simulation of an Ultimatum Game paradigm (Forber & Smead, 2014). When players were likely to be paired with opponents who employed strategies that were different from their own (i.e., negative assortment), then the inclusion of some players in the simulation who adopted a spiteful strategy (i.e., players who rejected unequal offers even though doing so was costly to themselves) resulted in fewer inequitable offers being made over the course of the simulation. In essence, spitefulness may contribute to the emergence of fairness within social systems because spiteful individuals have the potential to serve as enforcers of important social norms. The possibility that spiteful individuals may play a role in fostering fairness is particularly intriguing in light of our findings that spiteful individuals appear to have relatively little concern for the treatment of others despite the fact that they are

very concerned about their own fair treatment. This suggests that spitefulness may have unintended benefits for the promotion of fairness within social systems.

Our results concerning the associations between basic personality dimensions and moral values were largely consistent with our predictions such that emotionality was positively associated with both individualizing and binding values. Further, honesty-humility, agreeableness, and openness were positively associated with individualizing values and extraversion and conscientiousness were positively associated with binding values. It is also important to note that conscientiousness had a positive association with individualizing values, agreeableness had a positive association with binding values, and openness had a negative association with binding values even though these associations did not emerge in previous studies using the Big Five framework. The connection between conscientiousness and individualizing values may reflect small differences in the operationalization of this personality dimension between the HEXACO and Big Five frameworks. One potential explanation for this association may be a preference among conscientious individuals for social systems that recognize talent and effort (i.e., systems that are fair and just) such that hard work is rewarded. Differences in findings from previous studies concerning agreeableness is most likely because HEXACO agreeableness reflects a slightly rotated version of its Big Five counterpart (Lee & Ashton, 2012; see Ashton et al., 2014, for a review). For example, characteristics related to being easily angered are associated with high levels of neuroticism in the Big Five framework but are associated with low levels of agreeableness in the HEXACO framework. Similarly, the negative association between openness and binding values may be due to differences in the measurement of openness in the HEXACO framework. Although the negative association between openness and binding values has not emerged in previous studies, it is not terribly surprising given that openness is negatively associated with political conservatism (Cooper, Golden, & Socha, 2013), which is closely linked with binding values (e.g., Hirsh et al., 2010).

Although the present study had a number of strengths (e.g., large community sample, an array of personality features were included), it is important to acknowledge some of the potential limitations. The underlying process model for the present study was that personality features would precede the development of moral concerns (e.g., spitefulness would lead individuals to adopt relatively weak individualizing values). However, this causal sequence cannot be established using the present correlational data. For example, it is possible that moral concerns may shape the development of personality features, or that a third variable (e.g., interactions with caregivers during early childhood) may impact the development of both personality features and moral concerns. Additionally, the present study relied exclusively on self-report measures of personality features and moral concerns, which leaves open the possibility that our findings may have been influenced by socially desirable responding. For example, it is possible that some individuals may have been reluctant to admit that they are spiteful or acknowledge their lack of concern for fairness when making moral decisions. Furthermore, individuals with high levels of spitefulness may suffer from deficits in the ability to understand the mental states of others (Ewing et al., 2014), which may contribute to their lack of concern for the welfare of others. It would be helpful if future research concerning the link between spitefulness and moral concerns utilized strategies that were not completely reliant on self-report. For example, spitefulness could be captured using observer reports from close others (e.g., friends or family members) or through behavior in an economic game (e.g., Ultimatum Game, Moonlighting Game). The final limitation is that we focused on typical personality traits in the present study but it may be informative for future research to examine the association that spitefulness has with moral concerns beyond that which is

accounted for by dark personality features such as the Dark Triad (i.e., narcissism, psychopathy, and Machiavellianism).

Despite these limitations, the results of the present study expand our current understanding of spitefulness by indicating that spitefulness is associated with low levels of individualizing values such that spiteful individuals report relatively little concern with avoiding harm to others and treating others fairly when making moral decisions. On the other hand, spite was not negatively associated with binding values – a finding that further constrains our conception of spitefulness, and provides additional insight into the psychological processes underlying spiteful behavior.

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