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A FUNCTIONAL PERSPECTIVE ON EVERYDAY SADISM

by

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THESIS

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A FUNCTIONAL PERSPECTIVE ON EVERYDAY SADISM

by

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ABSTRACT

Everyday sadism is thus far a poorly operationalized personality trait. In its current conceptualization it offers predictive value for aggressive behavior over and above the effects of other antisocial personality traits. To improve the utility of this potentially critical predictor of socially undesirable behavior I conducted an exploratory study that more precisely examines its psychometric structure and informs its evolutionary significance. Due to the scarcity of research on everyday sadism (which is additionally limited by the trait's poor operationalization) I suggest a functional hypothesis for its evolution based largely on theoretical reasoning. I propose this hypothesis for everyday sadism with the goal of providing useful direction to a field that has otherwise been exploring disjointed questions with various unjustified measures. This hypothesis conceptualizes everyday sadism as one manifestation of aggression enjoyment and proposes a second manifestation I here call "prosocial" sadism. I constructed a novel scale, the Prosocial Aggression Motivation Scale (PAMS), and a corresponding vignette measure for both this scale and the Short Sadistic Impulse Scale (SSIS) to determine to what extent these purported types of sadism differ. I then measured and compared the relationships between these sadism measures and social strategy variables—dominance, prestige,

and need to belong—to provide preliminary evidence in support of or against my functional hypothesis. I found everyday and "prosocial" sadism to be strongly correlated measures that capture shared variance but also unique and seemingly meaningful variance each. Relative associations with social strategies and personality traits generally support my functional hypothesis. I discuss implications for this hypothesis and its re-specification, and make suggestions for subsequent research.

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Introduction

Since the 19th century the word "sadist" has described social outsiders who take pleasure in the suffering of their peers. This characteristic has been defined as both a sexual paraphilia and a personality disorder by the American Psychological Association (APA) throughout versions of the Diagnostic and Statistical Manual of Mental Disorders (DSM). Though sadists are generally depicted in popular media as violent criminals or inpatients, more subtle manifestations of the trait can be identified in high-functioning free citizens. For approximately ten years, personality psychologists have been empirically measuring "everyday sadism" as a dimensional trait describing animal abusers, internet trolls, and cruel elementary school gym teachers.

In this time several scales have been developed to measure everyday sadism in the general population and to explore its relationship with a number of traits and behaviors (see O'Meara, Hammond, & Davies, 2011; Buckels & Paulhus, 2013; Buckels, Jones, & Paulhus, 2013; Plouffe, Saklofske, & Smith, 2017). Unfortunately, the field still lacks a unified definition of the trait; sadism is conceptualized differently with poorly justified sub-types across scales. Even more importantly, it lacks a theoretical grounding from which productive research questions can be derived with the goal of eventually reaching a meaningful understanding of the trait. To work toward an understanding of the etiology and social consequences of sub-clinical sadism I have developed a broad functional theory for its adaptive value. This functional theory is here used to design novel measures of sadism which are administered alongside an established measure and other personality and social variables. Variables were chosen to inform the working definition of everyday sadism and to provide preliminary support either for or against my theory of its

evolutionary significance.

A Working Definition of Everyday Sadism

   Sadism and the Dark Triad. Psychologists were prompted to study sadism as a

possible personality trait because of high (e.g. 5.7%) rates of Sadistic Personality

Disorder (SADPD) traits in non-clinical and non-forensic populations (Coolidge, Moore,

Yamazaki, & Segal, 2001; Chabrol, Van Leeuwen, Rodgers, & Séjourné, 2009). This was

reminiscent of narcissistic and antisocial personality disorders, both of which are clinical

diagnoses that also manifest in the general population as variable traits. In fact, the

antisocial and aggressive behavior that characterized these general population sadists also

characterizes sub-clinical narcissists, psychopaths, and Machiavellians, the three of which

make up the "Dark Triad" of personality. Similarities between everyday sadism and the

Dark Triad led psychologists to conceive of a Dark Tetrad and begin studying sadism

within this context (Chabrol et al., 2009; see Paulhus, 2014 for a review).

   The Dark Triad traits as well as sadism reliably correlate positively with

callousness and interpersonal antagonism, and negatively with HEXACO

honesty/humility, agreeableness, and conscientiousness (Meere & Egan, 2017; Egan &

McCorkindale, 2007; Jacobwitz & Egan, 2006; Lynam & Derefinko, 2006; Lee &

Ashton, 2005; Jonason, Li, Webster & Schmitt, 2009; Jones & Paulhus, 2011). The four

dark personalities themselves correlate positively and usually moderately with each other,

between .20 and .60 (e.g. Bertl, Pietschnig, Tran, Stieger, & Voracek, 2017; Paulhus,

2014). Sadism is more strongly correlated with subclinical psychopathy and

Machiavellianism than it is with narcissism. It is also more strongly correlated with

psychopathy and Machiavellianism than narcissism is with either of those two (e.g. Book

et al., 2016; Furnham, Richards, & Paulhus, 2013).

Despite similarities between sadism and the Dark Triad, sadism is also a unique predictor of certain antisocial behaviors. In both the lab and the field, sadism predicts juvenile delinquency and unprovoked aggression over and above the effects of other dark personality traits (Chabrol et al., 2009; Reidy, Zeichner, & Seibert, 2011). Paulhus and colleagues (2013) conducted a seminal study comparing the aggressive behavior of sadists with that of Machiavellians, psychopaths and narcissists. They demonstrated that sadists were uniquely willing to incur a cost for the opportunity to inflict pain on human confederates. The inclination to aggress in the absence of personal benefit became the feature distinguishing sadism from the other dark personality traits. Psychopaths, narcissists, and Machiavellians aggress in antisocial ways to fulfill identifiable goals or desires (e.g. Jones & Paulhus, 2010; Paulhus & Williams, 2002). Narcissists, for example, become aggressive when they experience a threat to their ego, and Machiavellians when they think it will get them ahead in a professional setting. Sadists, by contrast, are widely described as aggressors without a cause; their subjugation of others is intrinsically pleasurable. The unique role of sadism in motivating gratuitous aggression is supported by correlational studies that find internet trolling and violent video game play to be more strongly predicted by sadism than by narcissism, psychopathy, or Machiavellianism (Buckels, Trapnell & Paulhus, 2014; Greitemeyer, 2015; Greitemeyer & Sagioglou, 2017).

Subjective descriptions of sadism. Personality psychologists agree that sadists are predisposed to aggression due to an intrinsic association with pleasure. Operationalizations of the trait, however, differ in meaningful ways throughout the

literature. Paulhus and colleagues (2014) define sadism in a relatively broad sense, as the "dispositional tendency to enjoy hurting others", or the "enjoyment of cruelty". This description is consistent with items on the Short Sadistic Impulse Scale (SSIS), 9/10 of which describe cruelty in the absence of explicit motivation (Appendix A; O'Meara, Hammond, & Davies, 2011). The authors of the SSIS describe a sadist in more specific terms, as one who "humiliates others, shows a longstanding pattern of cruel or demeaning behavior to others, or intentionally inflicts physical, sexual or psychological pain or suffering on *others in order to assert power and dominance* or for pleasure and enjoyment" (O'Meara, Hammond & Davies, 2011). Plouffe, Saklofksi, & Smith (2016) developed the Assessment of Sadistic Personality (ASP) scale which includes subscales for callousness, pleasure-seeking, and subjugation. Their subjugation items describe the assertion of power, indicating that they too assume social power-seeking is intrinsic to everyday sadism. Importantly, both research groups also describe pleasure-seeking and power-seeking as distinct components of the trait. Despite what the SSIS items measure, multiple sadism researchers claim that sadists harm and humiliate not for pure enjoyment, but also in service of their social position. There is, however, no justification for this suggestion outside of anecdotal observations.

Behavioral Correlates of Everyday Sadism

There is a near-absence of experimental studies measuring everyday sadism. Most empirical studies are correlational and almost all use exclusively self-report measures. Self-report has especially low validity in antisocial populations due to more frequent dishonesty. As a result, there is insufficient evidence to provide convincing support for any hypothesized function of sadism. Despite these limitations, several studies have

found significant correlations between sadism and certain fitness-relevant motivations and behaviors. Though causal conclusions cannot be drawn, these relationships help elucidate possible domains in which sadism could affect fitness, and have therefore informed my hypotheses about its function.

Sexual competition. One such domain is competition between mates or same-sex peers for access to sex. Given the evolutionary importance of mating, we can expect countless adaptations promoting and shaping mate selection, attraction, competition, and retention. In different environments (i.e. mating contexts) the frequency and intensity of competition will vary, and competitive strategies will therefore also vary. In humans, for whom biological life history measures have been shown to predict personality, it is plausible that personality traits adaptively promote different strategies for sexual competition (e.g. Figueredo, Vasquez, Hagenah Brumbach, & Schneider, 2004; Gladden, Figueredo, & Jacobs, 2009). More specifically, a trait like sadism that promotes antisocial behavior—typically associated with a faster life history strategy—could function to adaptively increase sexually competitive aggression.

Peter Jonason and colleagues have made this argument about the Dark Triad traits. They argue that Machiavellianism, subclinical narcissism, and subclinical psychopathy promote short-term mating strategies and sexual competitiveness in men for whom faster life history strategies are adaptive (e.g. Jonason, Li, Webster, & Schmitt, 2009). Consistent with this, correlational studies have found Dark Triad traits to positively predict successful mate poaching, rates of being poached, subjective ratings of behavioral attractiveness, and sexual competitiveness among women, among other measures of mating pattern and success (Carter, Campbell, & Muncer, 2014; Holtzman & Strube,

2012; Jonason, Lyons, & Blanchard, 2015; Jonason, Li, & Buss, 2010; Russell & King, 2016; Russell, Doan, & King, 2017).

Nobody has developed as strong an argument about the role of sadism in promoting more aggressive competitive tactics. Some researchers have, however, found correlational evidence that is consistent with this idea. Russell and King (2016) found that physical sadism in men predicted their hostility towards women in mating contexts, though verbal sadism did not. Russell, Doan, & King (2017) found a similar relationship in women; heterosexual women's sexual aggression and endorsement of competitive sexual attitudes was positively correlated with both physical and verbal sadism. The same authors found a relationship between sadism and measures of intrasexual competition among women; everyday sadism mediated the relationship between callousness and hostile femininity. Hostile femininity is an approximation of women's intrasexual competition, derived from scores on the Rape Myth Acceptance (RMA) and the Hostility towards Women (HTW) scales.

Social punishment. The possible benefits of competing aggressively for mates are easy to imagine. Researchers have also noted relationships between everyday sadism and aggressive behaviors that are less obviously related to fitness outcomes. One such behavior is antisocial punishment, which is a relatively infrequent alternative to altruistic/prosocial punishment observed in public goods games. The latter refers to costs imposed on free riders while the former refers to costs imposed on prosocial players who have contributed at least as much as the punisher, but most often more, to the public good. Because punishment in public goods games is costly and antisocial punishment does not uphold norms about financial contribution, antisocial punishers incur a monetary

cost for no clear benefit.

In two similar studies, Pfattheicher & Schindler (2015; 2017) measured scores on the Varieties of Sadistic Tendencies Scale (VAST) and correlated them with punishment behavior in a public goods game (Buckels & Paulhus, unpublished). They found that more sadistic individuals are more likely to punish antisocially when primed with their own mortality. In a subsequent study, they found the same pattern when priming participants to think intuitively. They also found negative correlations between antisocial punishment and contribution to the public good, suggesting that cooperative individuals are either not engaging in antisocial punishment or are doing so to a lesser degree than antisocial individuals. These studies suggest that sadists are overall more likely to punish antisocially than non-sadists, but also that sadists punish discriminately: they are more antisocial when their self-esteem is threatened or when they are primed to make decisions automatically. It is worth noting that social cognitive priming studies are particularly rife with issues of replicability, so these results should be interpreted with caution (Molden, 2014).

Moral judgment. Sadists enjoy competing and punishing others. If sadism is a functional personality trait, it should be associated with neurological or cognitive adaptations that promote sadistic behavior. One such adaptation may be a distinct cognitive system for moral judgment, influencing how behavior is interpreted on a spectrum of morality and amorality. As described above, everyday sadism predicts an increased likelihood of punishment behavior, and evidence suggests this could be mediated by cognitive criteria for moral correctness (Tremoliere & Djeriouat, 2015). These authors found that with increasing everyday sadism, the harmful intent of the actor

and the causal mechanism of the consequences are decreasingly relevant in moral judgment making. More sadistic individuals rated actors less guilty and less worthy of punishment in situations of attempted but failed harm and in situations of intentional harm. The authors also found this relationship to be mediated by a construct they call enjoyment of cruelty. Consistent with their pattern of antisocial punishment, this study suggests that sadism may promote a less discriminate choice of victims when aggressing. Of the dark tetrad traits, this study found sadism to be the strongest independent predictor of moral judgment, moral punishment, and ratings of victim guilt. It is possible that sadism modifies cognitive appraisals of morality differently than psychopathy, Machiavellianism, and narcissism do. This distinction may be meaningful for the adaptive value of everyday sadism.

A Functional Hypothesis for Everyday Sadism

Everyday sadism is intriguing from an evolutionary perspective because personality psychologists have defined it as a trait promoting non-instrumental, intrinsically rewarding behavior. Harming and humiliating others is socially and energetically costly; it puts you at risk of injury and of losing social support and resources. Though many types of antisocial people incur this risk, they typically do so for a measurable benefit such as sex or professional advancement. Where these benefits increase fitness over and above the cost of behaving antisocially, motivating personality traits such as psychopathy should evolve. Without benefits to offset the costs of sadistic behavior, everyday sadism should be selected out of the population. Since it hasn't been, there may be fitness benefits to sadism that have yet to be identified.

The fitness benefits of Dark Triad traits can be discrete, easily measurable events

such as a copulation, promotion, or affair. The causal pathway from the behavior motivated by these traits to the fitness benefits they confer is easy to identify because it is direct. Many of these discrete events are accompanied by lasting changes in the way the actor is perceived by their social group. These changes in perceived social status confer additional benefits or detriments to the actor's fitness that are not as easily identified and measured. In fact, the dark triad traits have been shown to correlate positively with measures of social status striving such as dominance and prestige (Semenyna & Honey, 2015). The fitness benefits of sadism may be similarly difficult to identify because the causal pathway from sadistic behavior to fitness benefits is not as direct. I hypothesize that everyday sadism confers fitness benefits not through individually instrumental actions, but through antisocial behavior that, when observed, increases one's social status. This idea is supported by research indicating that sadists are more likely to behave sadistically when their self-esteem, a proxy for social status, is threatened (Buckels & Paulhus, 2013).

More specifically, I hypothesize that sadistic behavior increases an individual's dominance in a social hierarchy or dyad by cueing formidability, health, resources, or otherwise social superiority. Aggression is risky and costly, thereby requiring at least some amount of energy to engage in. To be selected for the resulting behavior must also lead to fitness benefits that offset their cost. In addition to the energetic costs and physical risks, it is also socially risky to behave aggressively when that aggression is not socially sanctioned. This is the case for current conceptualizations of sadistic behavior, which could therefore cue excess energetic resources and/or a social position or strategy leading to decreased concern for social punishment and exclusion. Excess resources or decreased

concern for social norms should allow those who are inclined toward gratuitous cruelty

(i.e. everyday sadists) to successfully threaten, coerce, or otherwise intimidate their peers.

Sadists signal not only that their aggressive behavior is within their means, but also that

they enjoy it and are therefore particularly inclined to do so. As described above, social

punishment and sexual competition are two domains in which everyday sadism may

motivate aggression. When faced with opportunities for aggressive sexual or social

behavior, sadists are more likely to act on those opportunities (see Pfattheicher &

Schindler, 2015; Pfattheicher & Schindler, 2017; Russell & King, 2016; Russell, Doan, &

King, 2017; Tremoliere & Djeriouat, 2015). They are compelled to behave in a cruel

manner, as suggested by mediational analyses demonstrating that the enjoyment of

aggression mediates the effect of everyday sadism on sadistic behavior (Buckels,

Trapnell, & Paulhus, 2013; Tremoliere & Djeriouat, 2016). By expending resources to do

so in pursuit of what is seen as intrinsic or illogical pleasure, sadists demonstrate that they

are dominant group members.

Aggression is not limited to antisocial acts. Aggression can be prosocial, such as in

the case of altruistic punishment; this type of aggression modifies behaviors that are

harmful to the group at the cost of the punisher. While harming and humiliating others for

pure enjoyment is perceived as an antisocial trait, harming and humiliating others may be

encouraged and appreciated by peers when it benefits the group as a whole. Consider, for

example, the history of public executions and modern ANTIFA groups, the tough-on-

crime movement, and modern call-out culture. Aggressive acts that are prosocial may

also increase social status through different means as antisocial acts. In this case, the

aggressor may increase their status by gaining prestige, either alone or in addition to

dominance. Prestigious individuals gain respect and admiration by demonstrating skills, group loyalty, or some other ability that is beneficial to their social group (Henrich & Gil-White, 2001). Experimentally, costly punishment increases peers' perceptions of trustworthiness, likeability, and formidability (Gordon, Madden, & Lea, 2014; Jordan et al., 2016). In addition to these prestigious traits, Gordon and colleagues found that costly punishment is associated with perceptions of increased dominance. If prosocial or socially-sanctioned aggression is adaptive, the enjoyment of aggression could adaptively motivate this behavior in the same way that it motivates antisocial aggression. In this case the aggressor derives pleasure from their actions, but their behavior does not align with the classic conception of sadism. Their related social power is a result of respect more-so than fear.

The Current Study

My theory for the function of sadism broadly suggests that the enjoyment of aggression motivates different types of aggressive behavior. I test novel scale and vignette measures for a prosocially motivated sadism-like trait, hereafter referred to as "prosocial sadism". I compared these "prosocial" sadism measures to corresponding measures of everyday sadism to determine to what extent these two hypothesized types of sadism can be differentiated. The items on the SSIS are worded so as to measure motivations to commit aggressive acts—specifically, 9/10 items describe aggressive (including humiliating) behaviors that are motivated by intrinsic pleasure. I wrote a corresponding scale—the Prosocial Aggression Motivation Scale (PAMS)—the items of which contain the same behaviors with an added prosocially motivating factor. The vignette measure developed to complement the SSIS also consists of vignettes and items

intended to complement the PAMS, and to increase the robustness of our comparison of everyday and "prosocial" sadism. I hypothesize that these "prosocial" sadism measures will capture variance that differs from that of the SSIS. I make no predictions, however, about to what extent or in what way these scales will differ. To measure this, I will use regression and data reduction techniques on my multiple sadism measures and on other personality and social motivation variables.

Additionally, I theorize that the benefit of aggression enjoyment and therefore sadism is to gain or maintain social status, thereby attracting and retaining higher-quality mates or friends or gaining control of resources. This exploratory study is not designed to draw strong conclusions about sadism's function or evolutionary significance. Rather, it is intended to provide preliminary support for or against a plausible adaptive function for everyday sadism that is consistent with known empirical findings about the trait. To do so I measure and compare the relationships between the two types of sadism—to the extent that they can be differentiated—and personality variables that will provide support for or against my functional hypothesis. I pre-registered the hypothesis that the two types of sadism will correlate with prestige and dominance striving differently. If these traits are functional, I hypothesize that everyday sadism should correlate more positively with dominance striving than prestige striving, and "prosocial" sadism should correlate more positively with prestige striving than everyday sadism does. To accurately measure the unique effects of aggression enjoyment, whether they manifest antisocially or prosocially, I have also included the Need to Belong scale and novel control vignettes. The Need to Belong scale measures one's desire for social acceptance and the control vignettes measure the enjoyment of aggression in situations of personal or otherwise socially

neutral retribution.

In addition to the dominance and prestige measures I explore and compare the relationships different sadism measures have with other dark personality variables (narcissism, psychopathy, Machiavellianism) and with general HEXACO personality variables honesty/humility, agreeableness, and conscientiousness. These variables were chosen to complement the social strategy analyses as control variables and to test or replicate previous findings on the personality profile of sadists or other antisocial individuals. I expect everyday sadism to be positively correlated with dark triad traits, and negatively correlated with agreeableness, honesty/humility, and conscientiousness, as found previously (e.g. Meere & Egan, 2017; Lee & Ashton, 2005; 2014; Watts, Waldman, Smith, Poore, & Lilienfeld, 2017). I pre-registered the prediction that prosocially motivated sadism will be less positively correlated with dark triad traits than everyday sadism, because it is less aligned with an antisocial group strategy. I also pre-registered the predictions that "prosocial" sadism will be less strongly associated with honesty/humility than every day sadism. Individuals who enjoy aggression in prosocial contexts should endorse norms such as fairness and sincerity, and therefore endorse honesty/humility items to a greater degree than those who enjoy aggression in antisocial contexts. I expect also that prosocial sadists will score low—perhaps as low as everyday sadists—on agreeableness due to their antagonistic impulses and behavior. I predict additionally that prosocially motivated sadists will be more conscientious than their antisocial counterparts, because they should punish more discriminately and diligently.

This study has a secondary but related aim of critically examining current measures of sadism and providing better evidence for the trait's psychometric structure. O'Meara et

al. (2013) code the SSIS items on a binary response system and I use a Likert response

scale here to specify a more nuanced distribution and potentially uncover meaningful

variability. I also compare SSIS scores to the novel vignette scores on everyday sadism to

determine if the more ecologically relevant vignettes and items would uncover additional

variability or an alternative distribution for this personality trait. From these analyses, the

way everyday sadism is measured and understood can either be validated or altered and

eventually improved.

Methods

Sample

Participants were recruited from Amazon Mechanical Turk (MTurk) between October 4th and 18th, 2018. To participate, they must have been English-speaking USA residents between the ages of 18 and 35, inclusive.

I initially recruited 350 participants for an estimated minimum of 300 after exclusion for duplicate submissions, insufficiently complete submissions (<70% of survey complete), insufficiently attentive responding (failure of more than 1/5 attention checks), or failure to meet pre-registered demographic inclusion criteria. After excluding these participants from the original sample, the sample size was 317. Another 3 participants were excluded for providing dishonest data (i.e. responses were submitted in a clear pattern or were all the same value) after identifying them during outlier analyses.

My final sample of 314 is 65.3% male, 79.0% heterosexual, 5.1% homosexual. The remainder of sexual orientations were reported as 14.6% bisexual or pansexual and 1.3% other. The mean age is 29.5 years old and ranged from 18 to 35 years old. 20.4% of participants identified as Hispanic or Latina/o/x. Racial demographics were 76.1% white, 14.0% black, 5.1% Asian, and 2.2% Native American or Alaska Native. This sample is representative of national racial and ethnic proportions.

Procedure

My online questionnaire consisted of seven scales and 18 vignettes with three items each for a total of 194 items. The questionnaire was hosted on Google Forms and linked to our Human Intelligence Task (HIT) on MTurk. I used three versions of the questionnaire, each with a different set of 18 vignettes such that 1/3 of participants read

each condition for each of the scenarios. Half of each of these versions presented

vignettes before scales, and the other half presented scales before vignettes, to prevent

response fatigue from being concentrated on any particular section of the survey.

350 HITs were released and accepted for a desired minimum sample size of 300.

HITs were released at various times of day in increments of nine assignments

(participants) in order to prevent temporal bias stemming from different times of days

that particular MTurk workers are more or less likely to be active and accept a HIT. In

cases where HITs were rejected (for failure to meet inclusion criteria or inadequate

completion of the questionnaire), they were re-released to other MTurk workers.

I estimate that it took participants approximately 45 minutes to complete the

questionnaire. Those who met the inclusion criteria and completed the hit to an adequate

degree were compensated $5 for their participation a maximum of three days after

completion. Once all released HITs were completed and participants were compensated,

all data was downloaded from Google Forms and hosted in IBM SPSS version 25 and

Microsoft Excel 365.

Measures

Sadism.

SSIS. This scale is a ten item self-report measure of everyday sadism (O'Meara,

Hammond, & Davies, 2011; see Appendix A). Items depict desire to engage in gratuitous

aggression of multiple types: verbal, physical, sexual, and arguably relational. Examples

include "Hurting people would be exciting" and "I have hurt people because I could".

Item scores for SSIS items were calculated by converting Likert string variables to

ordinal numeric scores such that 1=strongly disagree and 5=strongly agree, and the opposite is true for reverse-scored item four.

PAMS. The PAMS items are all novel. Each item was based on its corresponding SSIS item. Items were constructed such that the behavior described in the item remained the same but was justified by a prosocial punishment motivation within the item. The item "I enjoy seeing people hurt", for example, corresponds to the SSIS item "I enjoy seeing people suffer for their wrongdoings" (see Appendix A for the full scale). Item scores for the PAMS items were calculated by converting Likert string variables to ordinal numeric scores such that 1=strongly disagree and 5=strongly agree, and the opposite is true for reverse-scored item #4.

Vignettes. I created 18 unique scenarios, each of which were written in three different conditions for a total of 54 vignettes. Each vignette depicts an actor exhibiting aggressive behavior and the consequences of this behavior for the victim. The behavior and consequences remain constant across conditions while the social motivation for the behavior differs. In the antisocial sadism condition, the aggression is antisocial and unjustified. This is the condition designed to capture everyday sadism. In the prosocial sadistic condition, the aggression is a social punishment that is beneficial to the actor's social group. In the control condition, the aggression is personal and vengeful—neither harmful nor beneficial to the actor's social group. This condition controls for revenge-seeking and aggressive tendencies that are not socially motivated (in either a prosocial or antisocial direction).

Vignettes range from 50 to 100 words. Physical, verbal, and relational (indirect) aggression were equally represented across vignette scenarios, with six scenarios

depicting each. Everyday sadism is strongly associated with aggression, a trait for which

structure has been extensively researched (Prinstein, Boergers, & Vernberg, 2001; Rose,

Swenson, & Waller, 2004; Xie, Swift, Cairns, & Cairns, 2002). As such, the well-defined

structure of trait aggression may be used to model a potential structure for everyday

sadism. Each of the three primary types of aggression was represented in order to explore

differences and interaction effects across manifestations of aggression in secondary

analyses. Systematically including these different forms of aggression will allow for a

more complete understanding of the relationship between sadism and other variables of

interest. Aside from the form of aggression, vignettes represent a subjectively wide range

of aggression severities, victim demographics (including one animal victim), and actor

demographics. This serves the purpose of maximizing the generalizability of this sadism

measure. The full set of vignettes is available in Appendix A.

Antisocially sadistic, prosocially sadistic, and socially neutral/revenge scores

were calculated from vignette responses by taking the mean of the three strongly

correlated items for each of the 18 vignettes, and subsequently the mean of all

antisocially sadistic scores (now six composite scores), all six prosocially sadistic scores,

and all six socially neutral vignette scores for each participant. The end result of scoring

the vignettes is three separate variables, two of which were intended to measure the same

constructs as the SSIS and the PAMS: sadistic and "prosocially sadistic" scores,

respectively.

Short Dark Triad. The Short Dark Triad (SD3) is a 27-item composite scale

measuring the Dark Triad of personality (Jones & Paulhus, 2014). Nine of its items

measure psychopathy, nine measure narcissism, and the remaining nine measure

Machiavellianism. These scales were included to allow for replication of existing sadism and dark triad correlations, and to compare the unique relationships between sadism and social motivation variables with those between other dark personality traits and social motivation variables. Item scores for the SD3 items were calculated by converting Likert string variables to ordinal numeric scores such that 1=strongly disagree and 5=strongly agree, and the opposite is true for reverse-scored items. Composite psychopathy, narcissism, and Machiavellianism scores were calculated as means of their individual items.

Dominance and Prestige Scale. The dominance and prestige scale is a 14-item composite scale with two 7-item subscales measuring trait dominance and prestige (Cheng, Tracy, & Henrich, 2013). This scale was modified to reflect dominance and prestige striving, rather than actual social outcomes, because social motivations were more important than outcomes in the context of my functional hypotheses. Two novel dominance items were also added to capture a threatening or intimidating factor, which I believe to be a critical component of differentiating dominance and prestige that was absent from the original scale. See Appendix A for a detailed description of modifications made to this scale. Item scores for the items were calculated by converting Likert string variables to ordinal numeric scores such that 1=strongly disagree and 5=strongly agree, and the opposite is true for reverse-scored items. Composite dominance and prestige scores were calculated as means of their individual items.

Need to Belong Scale. The Need to Belong scale is a seven-item scale measuring the strength of one's motivation to be valued and accepted by their social group, independent of desire for mere social contact (Leary, Kelly, Cottrell, & Schreindorfer,

2013). This scale was included in order to partial out the effects of dominance and prestige-striving from the effects of a more general desire to be accepted by one's social group. If the effects of sadism measures on dominance and prestige striving are not unique from their effects on Need to Belong, this suggests a different function for the corresponding sadism type. Item scores for the items on this scale were calculated by converting Likert string variables to ordinal numeric scores such that 1=strongly disagree and 5=strongly agree, and the opposite is true for reverse-scored items. A mean score was then calculated.

HEXACO-PI-R. The HEXACO is a 60-item composite personality scale measuring six orthogonal high-order personality traits: honesty/humility, emotionality, extraversion, agreeableness, conscientiousness, and openness (Lee & Ashton, 2009). Some of these traits are used primarily as covariates in this study. Of particular interest here are honesty/humility, agreeableness, and conscientiousness, all of which have been suggested as "core" or higher-order traits explaining variance in dark personality traits. It should be noted that agreeableness as measured by the HEXACO scale does not consist of the same facets as Big Five agreeableness. I opted to use the HEXACO measure because it includes irritability—a facet of neuroticism in the Big Five— and excludes tender-mindedness. I anticipate that the irritability facet is particularly relevant to the present research questions because irritability and irritating stimuli predict higher levels of impulsive aggression (see Stanford, Greve, & Dickens, 1995; Blair, 2018; Van Meter et al., 2016). Sadistic aggression has been subjectively classified as non-instrumental, suggesting it may be more associated with trait irritability. Item scores for the items were calculated by converting Likert string variables to ordinal numeric scores such that

1=strongly disagree and 5=strongly agree, and the opposite is true for reverse-scored items. Composite scores for individual personality traits were then calculated as means of their 10 items.

Statistical Analyses

All statistical analyses reported were conducted on SPSS version 25. Before conducting primary analyses, preliminary analyses established that the assumptions of my analyses were met, and the internal consistency of all scales were acceptable. The distributions of sadism variables were examined in order to describe the psychometric structure of sadism in this sample. Then, bivariate relationships between sadism variables and social strategy and personality variables were analyzed and plotted. These subjective analyses contribute to our ongoing understanding of what the SSIS is measuring, and what everyday sadism subjectively looks like in the population. Sadism items and vignette scores were subsequently analyzed with exploratory factor analyses (EFAs) and compared to other personality and social strategy variables with a series of regressions. These analyses serve to confirm or refute the assumed factor structure of the SSIS, determine whether we can identify two distinct types of sadism, and estimate relationships between sadism and other personality and social strategy variables.

Results

Preliminary Analyses

Missing data handling. After eliminating participants and re-coding the data, the final data set was missing .0019% of cases. Given the negligible percentage of missing data, analyses that were conducted on SPSS handled missing data with pairwise deletion, one of the default options for this software. This resulted in the exclusion of a maximum of two participants from any given analysis.

Outlier analyses. Boxplots and histograms indicated that there are no "extreme values" in any of my variables of interest, so no univariate outliers were eliminated. Eleven participants were classified as multivariate outliers based on a one-tailed chi-squared significance test of their Mahalanobis distances (df=18, p<.05). Upon inspection of these data, three participants were eliminated due to data that appeared faulty, accounting for their outlier status. No sensitivity analyses were conducted for these three participants because their data should have been eliminated in the preliminary stage. The remaining eight participants were retained in the data set because their Cook's D values did not indicate that they were having undue influence on the results. In fact, the largest Cook's D value in the data set was .03, so no data points were eliminated for having extreme influence. Nevertheless, sensitivity analyses were conducted with these eight multivariate outliers in order to ensure that conclusions were not altered by their inclusion in the primary analyses.

Internal consistency of scales. Table 1 summarizes the Cronbach's alpha values of each scale used in this study. All scales had coefficients of at least .60, within the acceptable range, and most were between .75 and .95. Both the SSIS and the PAMS had

excellent internal consistency. Notably, the reverse-scored item on both the SSIS and

PAMS (items 4) were the only items that, when removed, improved the scale's internal

consistency; Cronbach's alpha of the SSIS increased from .96 to .97, and that of the

PAMS increased from .93 to .96 with the removal of their respective reverse-scored

items.

Table 1

Internal consistency of each scale measured in this study.

Scale	Cronbach's alpha
SSIS	.96
PAMS	.93
Dominance (striving)	.80
Prestige (striving)	.66
Need to Belong	.74
Machiavellianism	.87
Narcissism	.82
Psychopathy	.87
Dark Triad composite	.93
Honesty/Humility	.74
Openness	.77
Agreeableness	.76
Extroversion	.81
Conscientiousness	.79
Emotionality	.73

Note. Each scale is presented in full in Appendix A.

Distributions

       Univariate distributions of sadism variables are graphed and described here to clarify previously unpublished details about the properties of sadism. This is in keeping with the exploratory nature of this study and the goal of developing a personality construct with desirable psychometric properties that is also etiologically homogenous and distinct from redundant traits. Histograms and boxplots suggest that all HEXACO and dark triad personality traits as well as social strategy variables were approximately normally distributed, as predicted and established by prior research. In addition to appearing normally distributed, each of these variables also had non-significant skewness and kurtosis values. Sadism variables, by contrast, were distinctively non-normal. The SSIS and antisocial vignette composite scores appear bimodally distributed with one peak on the lowest end of the distribution and another in the higher end of the distribution before the maximum. As can be seen in Figure 1, these two antisocial sadism measures have similar distributions. The prosocial sadism measures had less similar distributions (Figure 2). The PAMS scores were approximately uniformly distributed, except for the highest scores at the right end of the distribution, which sharply drop off (Figure 2). The prosocial sadism vignette composite scores were approximately symmetrical and more normally distributed (Figure 2).

a.
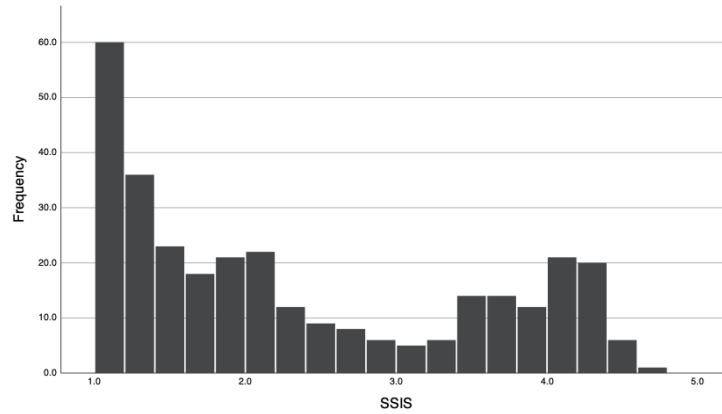
b.
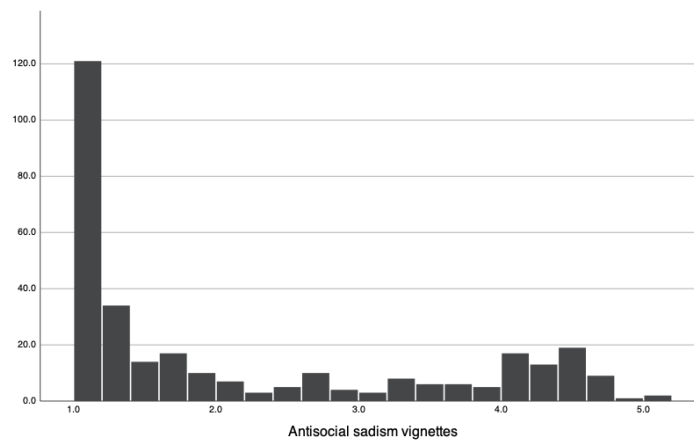
Figure 1. Histograms of mean SSIS scores (a) and mean antisocial sadism vignette scores (b). The distribution of everyday sadism is bimodal in this sample. This bimodality is more pronounced in the SSIS scores and more negatively skewed in the vignette scores. The two measures correlate at r=.89, p<.05.

a.

b.
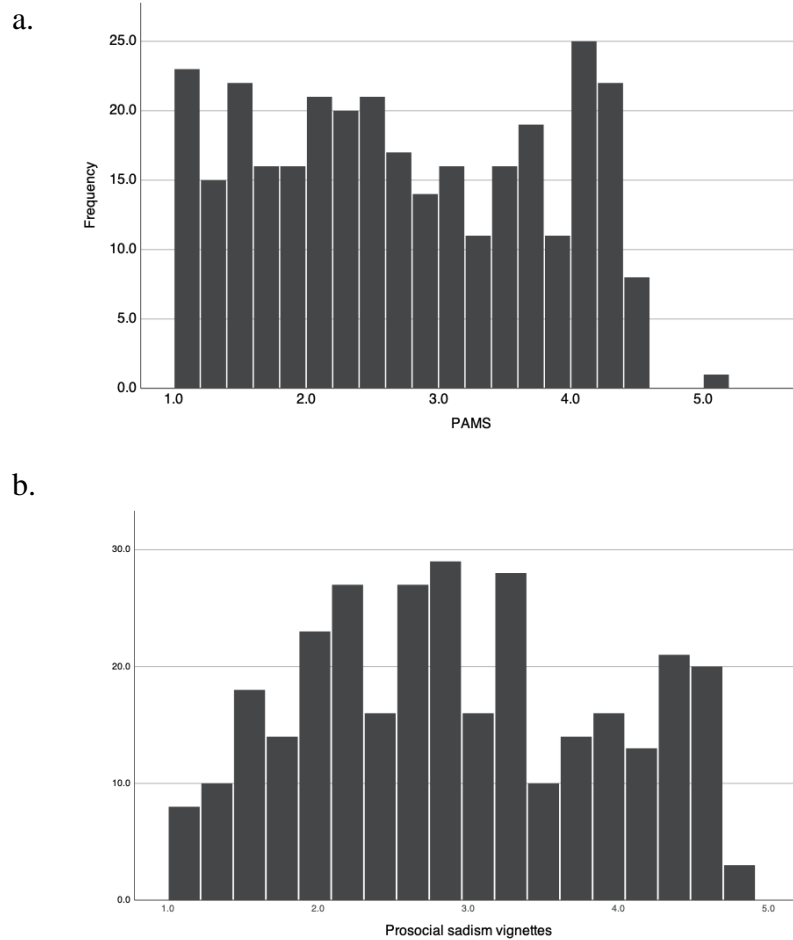
Figure 2. Histograms of mean PAMS scores (a) and mean prosocial sadism vignette scores (b). The distribution of "prosocial" sadism is not consistent across measurements. The vignette scores are approximately normally distributed—as most personality traits are—and the scale scores are closer to uniformly distributed. The two measures correlate at r=.81, p<.05.

Exploratory Factor Analyses

Due to the exploratory nature of this study and the multiple methods of

measuring sadism, several similar but critically distinct EFAs were conducted on the

sadism items in our questionnaire. Principle Axis Factoring (PAF) was used to estimate

factor loadings and Promax oblique rotation with Kaiser normalization was used to rotate

factors. Scree plots for each EFA are included below to visually estimate how many

factors should reasonably be retained. Additionally, rotated eigenvalues, factor loadings, and correlations between factors are reported for each model below.

First, the SSIS items (01-10) were analyzed alone to determine if their single-factor structure replicates in this sample. A single factor structure most appropriately represents the SSIS. The first factor has an eigenvalue of 7.27 and explains 70.65% of the shared variance in the two-factor model (Figure 3). The second factor has an eigenvalue of less than one ($\lambda_2=.93$) and explains only 2.29% of the shared variance. These two factors are positively and strongly correlated with each other (r=.83).

All items except item four load onto the single factor of the one-factor model to a degree that is practically significant (Table 2). Additionally, extraction communalities for this model range from .61 to .85, except in the case of item four, which has a communality of .12. Item four is the only reverse-scored item on the SSIS and the only item not significantly and moderately to strongly correlated with the other items in the scale. Item four from both the SSIS and the PAMS (see all subsequent EFAs) are recurring outliers compared to the other scale items, which I attribute to their being reverse-scored which resulted in a particularly nuanced item.
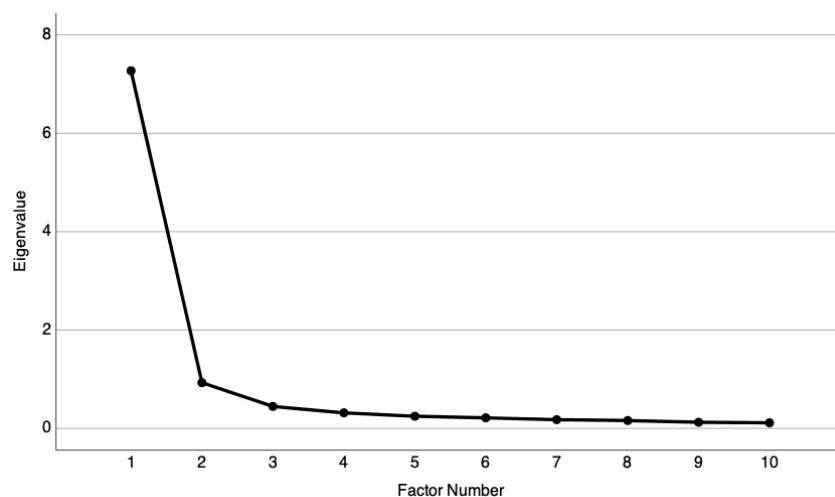
Figure 3. Scree plot of SSIS items 1-10. Based on this plot a single factor solution is most accurate with no additional factors explaining substantial variance in the data.

Table 2

Factor loadings of SSIS items onto a single-factor model and a two-factor model.

	Number of factors extracted		
	One	Two	
		Factor number	
Item		1	2[a]
SSIS 01	.816	.931	-.123
SSIS 02	.906	.928	-.018
SSIS 03	.909	.606	.349
SSIS 04	.288	-.150	.500
SSIS 05	.929	.824	.122
SSIS 06	.854	.520	.385
SSIS 07	.928	.929	.004
SSIS 08	.912	1.070	-.168
SSIS 09	.878	.667	.243
SSIS 10	.770	.292	.552

a. The second factor in the two-factor solution primarily explains variance in item ten and item four, which is statistically distinct from the other items due to being reverse-scored.

Second, the SSIS and PAMS items were analyzed together, without any vignette items, in order to compare the SSIS and the PAMS without the influence of a second type of measurement on the factor structure. In the two-factor model the factors are positively correlated (r=.68) and all SSIS items other than the reverse-scored item four load positively onto factor one (λ_1=12.86) to a degree that is practically significant (Table 3) (Hair, Black, Babin, Anderson, & Tatham, 2010). Many of the PAMS items do the same, though half the PAMS items load onto factor two (λ_2=1.53) to a greater degree than factor one. In this model factor one accounts for 63.02% of the shared variance and factor two accounts for 5.33% of the shared variance in the un-rotated solution (Figure 4). The rotated sum of squared loadings are 12.15 and 8.64 for the first and second factors, respectively. In the three-factor model, the first factor still loads positively and most strongly on all the SSIS items other than items four and ten. The second factor here loads positively and most strongly on all the PAMS items except items four and five. In this model only the two reverse-scored items (item four on each scale) load on the third factor. This factor has an Eigenvalue barely above 1 (λ_3=1.01), explains 3.31% of the shared variance in the un-rotated solution, and has a sum of squared loadings of only 2.05 for the rotated solution. The first and second factors explain 63.07% and 5.67% of shared variance in the un-rotated solution, respectively, and have more similar sums of squared loadings (11.17 and 10.73) than in the two-factor model. The third factor correlates positively with both the first (r=.19) and the second (r=.38) factors and factors one and two correlate to a slightly greater degree than in the two-factor model (r=.71). Given a few cross-loadings and factor one loading strongest onto PAMS item 5, factor one appears to describe shared variance among the SSIS items, some of which is also shared

with PAMS items. Factor two appears to describe variance among the PAMS items that

is not shared by the SSIS items. Factor three is not practically meaningful because it

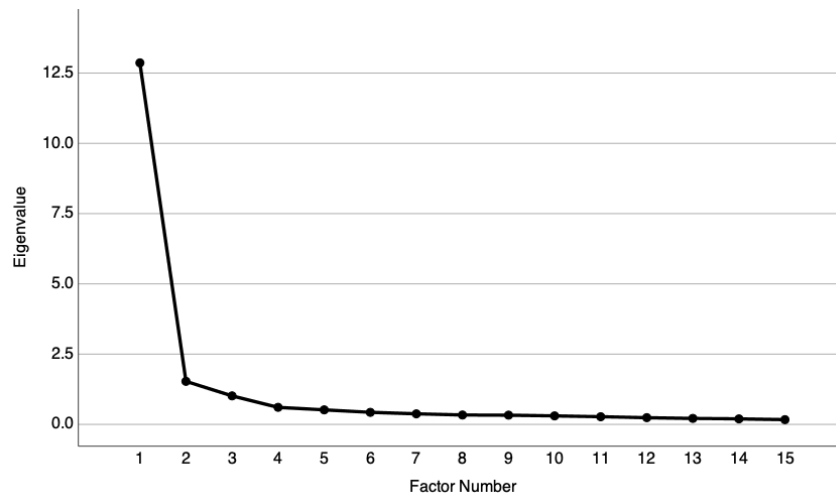captures variance only shared by invalid items.

Figure 4. Scree plot of SSIS items 1-10 and SSIS-P items 1-10. A one or two-factor solution
appears most appropriate, with some potential for a third factor explaining meaningful additional
variance.

Table 3

Factor loadings of SSIS and PAMS items in two and three-factor models.

	Number of factors extracted				
	Two		Three		
	Factor number				
Item	1	2	1	2	3
SSIS 01	.780	.070	.590	.311	-.049
SSIS 02	.958	-.089	.813	.118	-.007
SSIS 03	.915	-.033	.836	.062	.103
SSIS 04	.062	.291	.322	-.265	.789
SSIS 05	.960	-.059	.822	.130	.016
SSIS 06	.682	.251	.494	.440	.022
SSIS 07	1.020	-.138	.893	.056	.006
SSIS 08	1.027	-.150	.841	.139	-.091
SSIS 09	.857	.027	.718	.196	.033
SSIS 10	.533	.340	.362	.481	.056
PAMS 01	.523	.348	.302	.566	-.018
PAMS 02	.488	.436	.202	.732	-.081
PAMS 03	.521	.428	.357	.532	.114
PAMS 04	-.630	.781	-.589	.456	.473
PAMS 05	.738	.204	.568	.374	.047
PAMS 06	.356	.501	.138	.678	.016
PAMS 07	.553	.396	.278	.684	-.072
PAMS 08	.255	.609	.010	.797	.013
PAMS 09	.437	.466	.157	.747	-.073
PAMS 10	.206	.587	-.022	.760	.010

Finally, the SSIS and PAMS items and the three mean vignette scores (antisocial, prosocial, and socially neutral) were factor analyzed simultaneously in order to compare the factor loadings of the scale items with their corresponding vignette scores. The

addition of the vignette scores to the two-factor model changes the factor loadings of some of the PAMS items. In this model, factor two still loads to a greater degree than factor one on most PAMS items, but factor one loads strongest on PAMS items one and seven, which cross-load, and item five (Table 4). The factors are positively correlated (r=.70) and factor one (λ_1=15.03) accounts for 64.24% of the shared variance in the un-rotated solution (Figure 5). Factor two (λ_2=1.62) only accounts for an additional 7.05% of common variance.

In the three-factor model, the third factor (λ_3=1.05) is conceptually equal to the third factor from the previous EFAs; it loads only onto item four from each scale, representing shared variance likely arising from reverse-scoring these items (Table 4). This factor accounts for only 4.57% of the total variance in the items. It is positively correlated with factor one (r=.09) and factor two (r=.30), though to a lesser degree than they are with each other (r=.76). Factors one and two also load similarly onto the SSIS and PAMS items as they did in the previous three-factor EFA.

Factor three is not practically important in and of itself but comparing the pattern matrices from both the two and three-factor models of these items leads to a more nuanced understanding of their structure. Factor one has strong loadings on antisocial vignette score in both models. In the three-factor model, however, factor two has much stronger loadings on prosocial and socially neutral vignette scores than factor one does (Table 4). Factor one does not load on prosocial or socially neutral vignette scores in this model. Across models, the first factor better captures the gratuitous element of sadism, loading most on SSIS items and antisocial vignette scores. When the unique variance of the reverse-scored items is extracted into a third factor, factor two becomes more easily

interpretable. This factor captures the variance shared between PAMS and prosocial and

socially neutral vignette scores that is not shared with the measures of more gratuitous

sadism. This factor captures facets of aggression enjoyment that are extrinsically

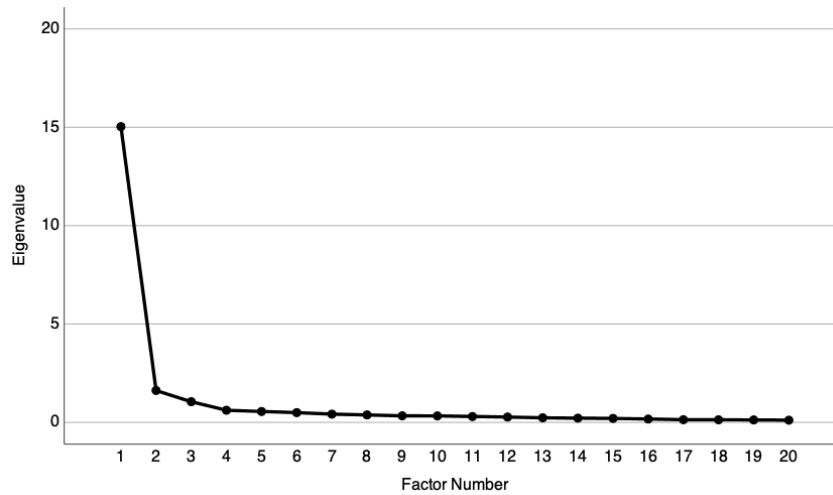motivated such as revenge and prosocial punishment.

Figure 5. Scree plot of SSIS and PAMS items and the three mean vignette scores. This plot is
similar with and without vignette scores included. A one or two-factor solution appears most
appropriate, with some potential for a third factor explaining meaningful additional variance.

Table 4

Factor loadings of SSIS and PAMS items and composite prosocial (P.V.), antisocial
(A.V.) and socially-neutral (S.N.V.) vignette scores in two and three-factor models.

	Number of factors extracted				
	Two		Three		
	Factor number				
Item	1	2	1	2	3
SSIS 01	.752	.110	.582	.305	-.037
SSIS 02	.921	-.032	.805	.123	-.019
SSIS 03	.860	.035	.884	.010	.118
SSIS 04	.010	.325	.410	-.239	.571
SSIS 05	.908	.008	.839	.100	.032
SSIS 06	.623	.309	.508	.400	.071
SSIS 07	.983	-.082	.919	.022	.010
SSIS 08	.995	-.095	.811	.157	-.103
SSIS 09	.801	.089	.759	.133	.074
SSIS 10	.467	.403	.370	.454	.105
PAMS 01	.464	.406	.272	.571	.023
PAMS 02	.419	.506	.111	.796	-.050
PAMS 03	.454	.484	.421	.439	.201
PAMS 04	-.707	.816	-.468	.336	.579
PAMS 05	.689	.257	.599	.326	.087
PAMS 06	.291	.554	.147	.633	.098
PAMS 07	.495	.451	.254	.670	-.007
PAMS 08	.176	.673	-.028	.802	.079
PAMS 09	.372	.523	.129	.730	.005
PAMS 10	.138	.640	-.041	.744	.082
A.V.	1.044	-.150	.762	.233	-.211
P.V.	.555	.353	.142	.805	-.194
S.N.V.	.622	.285	.246	.704	-.181

Pre-registered Regression Analyses

I performed a series of regressions to test our pre-registered hypotheses about the relationship between sadism and different social motivations, and between sadism and other personality variables. Each regression was accompanied by an analysis of the distribution, independence, and homoscedasticity of residual variances for that model. In all cases, the assumptions of normality, independence, and homoscedasticity of residuals were met. Each regression including a scale sadism predictor (either "antisocial" or "prosocial") is accompanied by a corresponding regression with the equivalent vignette predictor.

Sadism and social strategy. I compared the relationships between everyday sadism and the social strategy variables dominance, prestige, and need to belong with the relationships between "prosocial" sadism and the same social strategy variables. Though the socially neutral sadism vignettes were originally intended as a control for the prosocial and antisocial vignette scores, the socially neutral and prosocial vignette scores were too strongly correlated ($r=.92$) to use it this way. The equations and results of these regressions are presented below in Table 5. Across analyses, adjusted R^2 values indicated that estimates of explained variance are not inflated. Exact p-values are presented in Table 5 and all variables with original alpha values less than .05 remain significant when the false discovery rate is maintained at .05 with the Benjamini-Hochberg procedure. Age and gender were not significant predictors of prestige striving, but male gender was a consistent positive predictor of dominance striving and a consistent negative predictor of Need to Belong.

Dominance striving is positively and consistently predicted by everyday sadism across measures. Models containing both types of "sadism" indicate that everyday sadism is more strongly associated with dominance than "prosocial" sadism, as predicted; the variance in dominance that "prosocial" sadism explains is mostly (but not completely) shared with everyday sadism. The SSIS in addition to age and gender explains 41.3% of variance in dominance and the PAMS only explains an additional .70%. The comparison is very similar for the vignette measures.

Prestige striving is only significantly predicted by either type of sadism when controlling for the other. It is trending toward a negative association with everyday sadism across measurements and is significantly positively associated with the "prosocial" sadism vignette scores, but not the PAMS, when controlling for the corresponding everyday sadism measure. When both the prosocial and antisocial vignette measures are included in a single model, an effect of similar strength but opposing direction on prestige striving emerges. Even in this model, however, only 5.0% of the variance in prestige seeking is explained.

Across measures, everyday and "prosocial" sadism positively predict Need to Belong to a very similar degree. When modelled alongside only age and gender, each type of sadism has a significant effect on Need to Belong, but when modelled together no significant effects emerge for either type. This suggests that, contrary to prediction, Need to Belong is approximately equally associated with everyday and "prosocial" sadism. It also suggests that the variance in each of these variables that predicts Need to Belong is shared between them.

Table 5

Results of regression models predicting social strategy variables dominance striving, prestige striving, and Need to Belong from sadism scores.

IV(s)[a]	DV	β	t	p
SSIS	Dominance Striving	.63	14.07	.000***
Antisocial vignettes	.	.56	12.02	.000***
PAMS	.	.58	12.52	.000***
Prosocial vignettes	.	.51	10.47	.000***
SSIS +	.	.48	5.61	.000***
PAMS	.	.17	1.93	.054
Antisocial +	.	.42	5.66	.000***
prosocial vignettes	.	.18	2.43	.016*
SSIS	Prestige Striving	-.11	-1.85	.065
Antisocial vignettes	.	-.10	-1.79	.075
PAMS	.	-.04	-.72	.475
Prosocial vignettes	.	.05	.79	.429
SSIS +	.	-.27	-2.41	.017*
PAMS	.	.19	1.70	.091
Antisocial +	.	-.36	-3.94	.000***
prosocial vignettes	.	.32	3.58	.000***
SSIS	Need to Belong	.18	3.23	.001**
Antisocial vignettes	.	.21	3.70	.000***
PAMS	.	.20	3.50	.001**
Prosocial vignettes	.	.20	3.58	.000***
SSIS +	.	.05	.46	.643
PAMS	.	.15	1.39	.164
Antisocial +	.	.13	1.45	.148
prosocial vignettes	.	.10	1.10	.272

a. age and gender were included as independent variables in each regression in addition to the listed sadism variable(s)

Note. β = standardized regression coefficient; *p < .05 **p < .01 ***p < .001

Sadism and personality. I subsequently compared the associations of everyday sadism and "prosocial" sadism with the HEXACO trait Honesty/Humility and the Dark Triad traits Machiavellianism, subclinical narcissism, and subclinical psychopathy. All significance values were adjusted with the Benjamini-Hochberg procedure for maintaining an overall false discovery rate of less than .05. Honesty/Humility was a negative predictor of "prosocial" sadism across measurements but not a significant predictor of everyday sadism. Controlling for everyday sadism, honesty/humility predicted a .38 standard deviation decrease in prosocial vignette scores (β=-.38, p<.05) and a .41 standard deviation decrease in PAMS scores (β=-.41, p<.05).

Subclinical psychopathy was a positive predictor of both everyday and "prosocial" sadism across measures. For both scale and vignette measures, psychopathy was a stronger predictor of everyday sadism than of "prosocial" sadism, as predicted. Controlling for "prosocial" sadism, psychopathy predicted a .68 standard deviation increase in antisocial vignette score (β=.68, p<.05) and a .57 standard deviation increase in SSIS score (β=.57, p<.05). Controlling for everyday sadism, psychopathy predicted a .20 standard deviation increase in prosocial vignette score (β=.20, p<.05) and a .34 standard deviation increase in PAMS score (β=.34, p<.05).

Machiavellianism was a positive predictor of "prosocial" sadism across measures. Controlling for antisocial vignette score, prosocial vignette score predicted a .56 standard deviation increase in Machiavellianism (β=.56, p<.05). Controlling for SSIS score, PAMS score predicted a .63 standard deviation increase in Machiavellianism (β=.63, p<.05). Controlling for prosocial vignette score, Machiavellianism did not significantly predict everyday sadism from either measure after correcting for multiple comparisons.

Narcissism positively predicted everyday sadism across measures but did not significantly predict "prosocial" sadism. For both scale and vignette measures, narcissism was a stronger predictor of everyday sadism than of "prosocial" sadism, as predicted. Controlling for prosocial vignette score, narcissism predicted a .73 standard deviation increase in antisocial vignette score (β=.73, p<.05). Controlling for PAMS score, narcissism predicted a .52 standard deviation increase in SSIS score (β=.52, p<.05).

Exploratory Regression Analyses

To thoroughly assess the extent to which the two hypothesized types of sadism can be differentiated, I first examined scatterplots of "prosocial" and everyday sadism. Though the constructs are positively correlated to a high degree, these scatterplots reveal a group of participants who have high prosocial and relatively low everyday sadism scores (Figure 6). If this were due to meaningless noise (e.g. dishonest or rushed responding) we would expect to find an opposite group of participants who scored high on everyday but low on "prosocial" sadism. This is not the case. The relatively high "prosocial" group also appears regardless of measurement type, indicating that this is unlikely to be a spurious finding.

To gain insight into this group of participants and the unique variance the PAMS and prosocial vignettes appear to be measuring, I computed a difference score between centered mean "prosocial" and everyday sadism such that more "prosocially" sadistic participants were assigned positive values. This score was then correlated with variables of interest to determine if having high prosocial relative to everyday sadism is associated with anything that provides insight into the social strategy associated with this personality profile. All significance values were adjusted with the Benjamini-Hochberg procedure to

maintain an overall false discovery rate of less than .05. A standard deviation increase on this difference score predicts a .44 standard deviation increase in Machiavellianism (β=.44, p<.05), a .32 standard deviation decrease in narcissism (β=-.32, p<.05), and a .49 standard deviation decrease in psychopathy (β=-.49, p<.05) when controlling for age, gender, and the corresponding two dark triad traits. A standard deviation increase on the difference score predicts a .48 standard deviation increase in conscientiousness (β=.48, p<.05), a .13 standard deviation decrease in agreeableness (β=-.13, p<.05) and no change in honesty/humility (β=-.06, p>.05) when controlling for age, gender, and the corresponding two HEXACO traits. Lastly, when controlling for age, gender, Need to Belong, and the corresponding social strategy, a standard deviation increase on the difference score predicts a .30 standard deviation increase in prestige striving (β=.30, p<.05) and a .30 standard deviation decrease in dominance striving (β=-.30, p<.05).
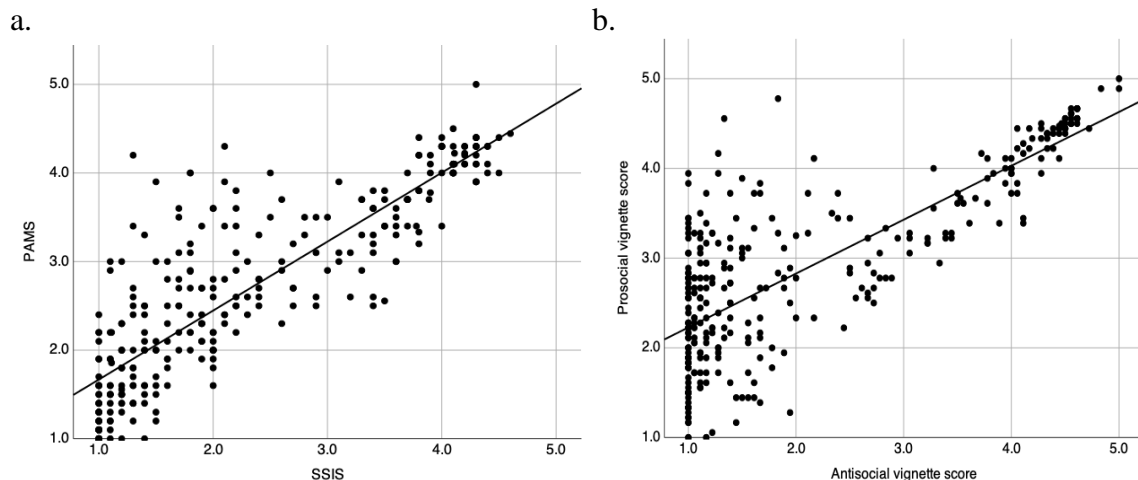

Figure 6. Scatterplots of (a) SSIS and PAMS scores, and (b) prosocial and antisocial vignette scores. The regression lines are represented by the equations y=0.89+0.78x and y=1.63+0.6x, respectively.

Discussion

Summary of Study

      This study was conducted to improve understanding of everyday sadism from both a functional and psychometric perspective. Given currently limited conclusions about the construct, I proposed a broad and testable theory about its possible adaptive value. To begin assessing this theory and our current assumptions about sadism, I examined and reported the psychometric structure of the SSIS, a frequently used and previously validated measure of the trait. I also developed and tested novel measures of sadism with the intention of improving the validity and reliability of our measurement tools. Finally, I examined and reported relationships between the various sadism measures and measures of motivation, social cognition, and other personality traits. This allowed me to assess pre-registered hypotheses about the function of sadism by comparing the social and motivational profiles of sadists and non-sadists. Together, these results clarify properties of sadism and aggression that should explicitly inform the questions asked and methods used in subsequent sadism and Dark Triad research.

Discussion of Results

      The results of this study are generally aligned with my pre-registered hypotheses about the function of aggression enjoyment and the difference between "prosocial" and everyday sadism effects on social and personality variables. Deviations from the predicted effects also occurred and will be described in this section. Findings suggest that the novel "prosocial" sadism measures introduced and tested here are useful, but in a way that is slightly different than predicted. These results also validate the use of my antisocial sadism vignettes as a measure comparable to the SSIS, though suggest there

may not be any predictive advantage of the vignette measure over the much shorter scale. Lastly, they inform how the SSIS should be administered based on its Likert response distribution and the identification of an item that should be either modified or removed for subsequent administrations.

Implications for measuring everyday sadism. The SSIS and antisocial sadism vignettes both have approximately bimodal distributions, with one peak at the lower end of the distribution and a second peak near the higher end of the distribution. This distribution pattern emerged despite scoring responses on a Likert scale, intended to uncover any variance that has been otherwise hidden in previous applications of the SSIS. These distributions suggest that everyday sadism may manifest in the population as a dichotomous variable, and that the SSIS may be best measured bimodally with yes and no responses to items and a pre-determined threshold of positive responses for classification in an everyday sadist group. To test this statistically I will perform secondary taxometric analyses on the SSIS items. The similar distributions and the correlation between the two everyday sadism measures ($r=.89$, $p<.05$) suggest that they are successfully measuring the same construct. The EFA and regression results support this conclusion. In both two and three-factor solutions, antisocial vignette score and most SSIS items load onto the same factor. Additionally, though the three vignette conditions were strongly correlated with each other, the SSIS is most strongly correlated with the antisocial vignette score. Though the vignette measure of sadism may be less concise for no predictive advantage, the statistical similarities between these two measures promotes the ecological validity of the SSIS and further validates it as a short self-report measure of everyday sadism.

Factor analyses of the SSIS items, correlations between them, and internal consistency analyses suggest that the reverse-scored item (item four) should be either modified or removed from the scale. Given that the item is no more distinct in terms of content than other items, it is likely that the reverse-wording is confusing to participants, thereby increasing the error associated with responses on that item. I suggest that the item be either removed or modified in subsequent applications of the SSIS. If the item were forward-scored or had its wording modified so as to prevent double negatives, the item may become as strongly correlated with the other items as they currently are with each other. Alternatively, the item could be removed, shortening the scale while preserving its internal consistency.

Item ten of the SSIS is also notable because it loads to a significant degree on both the "prosocial" and "everyday sadism" factors, and in some cases to a greater degree on the prosocial factor than the everyday. This item measures a subjectively more socially acceptable desire than the other nine items: "Sometimes I get so angry I want to hurt people". Depending on one's interpretation of "hurt", it is reasonable to suggest that many would respond positively to this item because it uses the word "want" rather than something stronger such as "enjoy", as used in many of the other items. This item also uses the word "sometimes", while other items are more absolute, and leaves room for one's own assumptions about the cause of the anger. As such, it is unsurprising that item ten of the SSIS is more strongly associated with the "prosocial" sadism items than the other, more explicitly antisocial, SSIS items are. This item captures some of the same variance as the other SSIS items, but also seems to capture some variance that is otherwise unique to the PAMS items. As such, I suggest that it be removed from the SSIS

in future applications of these two scales alongside each other in order to optimally parse shared and unique variance between manifestations of aggression enjoyment.

      Distinguishing everyday sadism from "prosocial" sadism. A comparison of the "prosocial" sadism and everyday sadism measures with factor analytic and regression techniques indicate that these two constructs are distinct in some way but that some of their variance is also shared. When the variance from the reverse-scored item on each scale load onto their own third factor, the everyday sadism items generally load onto one factor and the "prosocial" sadism items generally load onto another. Though a distinct "prosocial" factor loads strongly onto most of the PAMS items, the "everyday sadism" factor also loads to a degree that is practically significant onto some PAMS items in some cases. This is explained by the strong correlation between the two constructs which, along with factor loadings suggests the "prosocial" sadism construct captures some of the same variance in sadism-like impulse as the SSIS but also some unique variance. The socially-neutral vignette scores were also highly correlated with prosocial vignette scores and, to a lesser degree, the antisocial sadism vignette scores. The prosocial, but not everyday factor loaded significantly on the socially neutral vignette score, suggesting that this "control" measure captured more of the same variance as "prosocial" sadism than everyday sadism. This indicates that there is little variance explained by "prosocial" sadism that isn't explained by revenge-seeking, or "socially-neutral" aggression.

      One interpretation of these findings is that "prosocial" sadism and the socially-neutral vignettes both represent a domain-general enjoyment of aggression or tendency to aggress. Given that antisocial strategies for cooperation within a group are less common than prosocial strategies in stable populations, aggression should manifest most often in

prosocial or socially acceptable contexts, as captured by these constructs. This is the case in this sample, for which the mean "prosocial" and "socially-neutral" sadism scores are greater than mean everyday sadism. It follows that everyday sadism could be a construct capturing part of the general aggression enjoyment captured by the PAMS but also a unique antisocial personality component. The enjoyment of aggression could underlie multiple lower-order personality constructs, such as Machiavellianism or prestige, promoting aggression in a way that interacts with these modifying traits to produce individually different behaviors in a given social context.

These findings also have implications for the potential construction of a domain-general "enjoyment of aggression" scale that could more closely measure a homogenous personality trait than the PAMS does. If the factor distinguishing everyday sadism from a general enjoyment of aggression is social condemnation, then an enjoyment of aggression scale should include items relating to various domains of socially-acceptable aggression. Additionally, items that are not clearly antisocial, such as item ten, should be modified or removed from the SSIS to maximize the internal validity and unique predictive value of sadism measures when used together and compared.

Evaluating the function of sadism. In line with predictions, everyday sadism is more closely associated with dominance than "prosocial" sadism is. The more sadistic one is, as classically defined, the more dominant their social strategy. This is unsurprising given previous studies indicating that other dark personality traits are positive predictors of dominance (Semenyna & Honey, 2015). While prosocial sadism is also a significant positive predictor of dominance, (when measured by vignettes) most of its predictive value is subsumed by that of everyday sadism. This makes sense in light of the statistical

distinction between everyday and "prosocial" sadism; both types appear to measure a common inclination toward aggression, and this shared inclination is likely responsible for their common effect on dominance. This is consistent with the hypothesis that antisocial manifestations of aggression (i.e. behavior promoted by everyday sadism) promote social status by promoting a dominant social strategy.

Given that the vignette measure of "prosocial" sadism was a significant predictor of dominance but the PAMS was not, it is possible that the vignette measure is a closer approximation of the construct I intended to capture. This may be explained by the subjectively higher ecological validity of the vignette responses relative to the scale items; the prosocial vignettes consist of relatable social situations while the PAMS items are rigid and abstract. It is possible that the construct captured by the prosocial vignettes could be better captured by a modified version of the PAMS. Alternatively, vignettes may be an overall more reliable measure of sadistic traits given the especially polarizing reactions to sadistic desires and behaviors. Short scale items representing sadism may be particularly jarring and therefore difficult to relate to, or only relatable through deeper processing of their implications and nuances.

Across measures, prestige striving was significantly predicted by sadism only in models for which both types of sadism were included. As predicted, different types of sadism differentially predict a prestigious social strategy; everyday sadism is inversely associated with prestige striving and "prosocial" sadism is positively associated. Contrary to prediction, the predictive value was similar in strength across sadism type. These findings are consistent with the hypothesis that antisocially sadistic behavior is less aligned with a prestigious social strategy than prosocially sadistic behavior is. Once

again, the vignette measure of "prosocial" sadism was a better predictor of social strategy than the PAMS. This provides more support for the increased validity of vignette relative to scale measures of sadism.

Need to Belong was positively and similarly correlated with prosocial and everyday sadism, but neither is an independent predictor of the trait. The relationship between Need to Belong and everyday sadism seems counterintuitive because a desire to belong to one's social group should not be satisfied by behaving antisocially. It is possible that this is a spurious finding or that this positive relationship is explained by a common and irrelevant influence such as extroversion. Alternatively, this may represent a causal relationship mediated by a variable such as social condemnation or exclusion. In either case, the relationship between Need to Belong and "prosocial" sadism would exist due to the same effect, given that neither predicts Need to Belong when controlling for the other. This confirms that Need to Belong does not explain the distinctive associations that everyday and "prosocial" sadism have with dominance and prestige striving. Other than ruling out an alternative explanation for the effect of sadism type on social strategy, this has no direct implication for my functional hypothesis.

I predicted that HEXACO honesty/humility would be negatively associated with everyday sadism but not prosocial sadism. This was based on research indicating that the dark triad traits are strongly associated with the honesty/humility construct (even to the extent that some analyses indicate they are psychometrically equal) and the expectation that this relationship is due to personality facets shared among the dark triad and everyday sadism (Lee & Ashton, 2014). Contrary to prediction, honesty/humility is associated negatively with prosocial sadism across measures and not significantly

associated with everyday sadism. In light of the overall results of this study, this opposing

finding contributes to a changed understanding of everyday sadism and the theoretically

meaningful variance uniquely captured by the PAMS. Difference score analyses

indicated that as prosocial sadism increases relative to antisocial sadism,

conscientiousness increases and agreeableness decreases. Additionally, psychopathy and

narcissism decrease to approximately the same degree that Machiavellianism increases.

Machiavellianism is defined by a tendency for calculated and careful

manipulation, deceit, or revenge, while psychopathy and narcissism are less associated

with calculation and more associated with impulsivity. One interpretation of the

difference score results provides insight into the group of participants who score high on

prosocial sadism but relatively low on everyday sadism. It is possible that the PAMS

captures sadistic individuals who are conscientious enough to only appear aggressive in

situations that they or others deem socially acceptable, thereby responding negatively to

unjustified aggression but positively to "prosocial" aggression. If so, we would also

expect these individuals to score higher on agreeableness, either because they want to be

perceived as more agreeable, or because they are perceived as such, or both. If the PAMS

is capturing sadistic Machiavellians who are more conscientious about their aggressive

impulses, it may be useful with only minor modifications. In conjunction with the SSIS,

the PAMS would capture a fuller range of sadists, and also a distinct group of sadists who

are better at hiding their antisocial characteristics. Subsequent studies should therefore

determine whether the PAMS is truly capturing particularly conscientious sadists.

Ongoing and Prospective Research

      The exploratory design of this study heavily limits the conclusions that can be drawn from it. As an intentional solution to the lack of exploratory research on everyday sadism, the consequences of this limitation have been discussed throughout the introduction and discussion. The positive side of the trade-off implicit in exploratory research is that the results more broadly apply to and inform the literature. As such, ongoing research and suggestions for subsequent studies are the focus of this final section.

      Descriptive analyses reported here support prior findings that suggest everyday sadism is not a normally-distributed personality trait, and that it may be best approximated as a binary trait. To confirm these psychometric properties, taxometric analyses will be performed. From here the best response system for the SSIS and the "antisocial" sadism vignettes can be determined and employed consistently in subsequent studies. In addition to increasing measurement validity, these findings will inform our understanding of how everyday sadism manifests in the population on a practical level. If everyday sadism is a binary trait, it differs in distribution from the vast majority of personality traits. Most traits and even personality disorders are currently understood to be better represented by a dimensional scale than a categorical one (see Wright et al., 2012; Livesley, Schroeder, Jackson, & Jang, 1994; Wiggins & Pincus, 1989). This distinctive characteristic of everyday sadism prompts questions about its etiology and function as well as broader considerations about how personality traits manifest in humans.

Results of the comparative analyses of social strategy, personality, and sadism types suggest that "prosocial" sadism has unique predictive value but also shares variation with our current conceptualization of everyday sadism. To approximate a more distinct construct from everyday sadism, measures should be revised and compared to behavioral consequences in experimental studies. These studies should collect both revised PAMS and revised prosocial vignette scores to follow up on their relative validity and to make recommendations for measures that are less collinear with everyday sadism where applicable. The factor structure of "sadism" and the strong correlation between prosocial and everyday measures suggests the possibility of a domain-general "enjoyment of aggression" trait that interacts with other personality traits resulting in different manifestations of behavior in different individuals or social situations. Subsequent studies may attempt to measure the enjoyment of aggression distinctively from the lower-order constructs it may influence. These studies would have implications for our understanding of the etiology of sadism, other dark personality traits, and aggression itself.

Finally, this study provides preliminary information about the purported functional role of sadism and the enjoyment of aggression. The reported relationships between sadism types and social strategies and personality inform countless and increasingly specific hypotheses about sadism's adaptive value or alternative explanations for its population prevalence. Regression analyses suggest there may be a factor with common influence on "prosocial" and everyday sadism that is related to increasing levels of dominance striving. The positive relationship between "prosocial" sadism and dominance disappears or substantially decreases when everyday sadism is controlled for. This supports the hypothesis that a dominant social strategy is associated

with the enjoyment of aggression in antisocial contexts more so than in prosocial contexts. Regression analyses also indicate that prestige striving is inversely associated with everyday sadism across measures and positively associated with the more ecologically valid vignette measure of "prosocial" sadism. This supports the hypothesis that the enjoyment of aggression in more prosocial contexts is uniquely associated with a prestige-seeking social strategy. It also suggests that this type of aggression enjoyment could have a decreasing effect on social dominance. Together these findings disrupt the pervasive assumption that "sadism" is necessarily antisocial. These correlational findings about aggression enjoyment and social strategy should be explored experimentally to establish whether they are directional and functional. These studies should measure not only self-report social strategy (i.e. dominance and prestige striving) but also other-report social hierarchical outcomes. If there is a functional relationship between aggression enjoyment and social strategy, both traits should be associated not only with status striving but with social status itself.

To more productively explore the etiology and function of sadism or aggression enjoyment I suggest that researchers first begin to consistently use unified measures of these traits. These measures should be informed by and aligned with current psychometric and theoretical understandings sadism and aggression enjoyment. In doing so studies within this field will become increasingly comparable and interpretable, ultimately leading to an understanding of the causal pathways between sadism and important behavioral outcomes. Knowledge of these pathways will allow psychologists, clinicians, and other relevant professionals to influence them in favor of preferable social outcomes.

Appendix A:

Study Materials

All items are scored on a five-point Likert scale where 1=strongly disagree and

5=strongly agree, unless otherwise noted.

A. Demographic Questionnaire

1. Are you a fluent English speaker? ☐ Yes   ☐ No

2. Age: _____ (years)

3. Gender (check one): ☐ Male   ☐ Female   ☐ Other: _____

4. Your main sexual orientation is:

   ☐ A. Heterosexual

   ☐ B. Homosexual

   ☐ C. Bisexual or pansexual

   ☐ D. Other

5. Do you identify as Hispanic or Latina/o/x? ☐ Yes   ☐ No

6. You identify as:

   A. Native American or Alaska Native

   B. Asian

   C. Black or African American

   D. Native Hawaiian or other Pacific Islander

   E. White

   F. Other / Decline to answer

B. Short Sadistic Impulse Scale & Prosocial Aggression Motivation Scale

Legend:

Original item (O'Meara, Hammond & Davies, 2011)

Modified prosocial item

1. People would enjoy hurting others if they gave it a go.

   Many would enjoy hurting bad people if they gave it a go.

2. Hurting people would be exciting.

   Hurting people who have done evil things would be exciting.

3. I have hurt people because I could.

   I have hurt people to punish them for their wrongdoings.

4. I wouldn't intentionally hurt anyone.

   I wouldn't intentionally hurt an evil person.

5. I have hurt people for my own enjoyment.

   I have enjoyed hurting people for the greater good.

6. I have humiliated others to keep them in line.

   I have humiliated people who were causing trouble for the group.

7. I would enjoy hurting someone physically, sexually, or emotionally.

   I would enjoy inflicting physical, sexual, or emotional harm on someone evil.

8. I enjoy seeing people hurt.

   I enjoy seeing people suffer for their wrongdoings.

9. I have fantasies which involve hurting people.

   I have fantasies that involve hurting bad people for what they've done.

10. Sometimes I get so angry I want to hurt people.

When someone does something evil, I sometimes get so angry that I want to hurt them.

C. Dominance and Prestige Scale (Tracy, Cheng, & Henrich, 2011)

Dominance:

1. I would enjoy having control over others

2. I try to control others rather than permit them to control me

3. I often try to get my way regardless of what others may want

4. I am willing to use aggressive tactics to get my way

5. I do not have a forceful or dominant personality (r)

6. I don't like to intimidate people (r)

7. I don't want others to be afraid to upset me (r)

Items 1-5 are taken from the dominance and prestige scale (Cheng, Tracy, & Henrich, 2010). Item 1 was modified to express dominance motivation rather than restricting positive responses to successfully dominant individuals. Items 6 and 7 were created by Russell & Del Giudice to include a threatening, intimidating or fear-inducing factor which we believe to be an critical component differentiating dominance and prestige. Item 7 was inspired by another item from the dominance and prestige scale, "Some people are afraid of me", but modified to express dominance striving, and to capture fear due to dominance more specifically than general fear. Three items from the dominance and prestige scale were removed: "I do not enjoy having authority over other people", because it was not specific to dominance when compared with prestige-striving, "I have flashes of unpredictable or erratic anger", and "I dislike giving orders" because

they had low loadings (below .5) on the dominance factor and relatively high loadings on the prestige factor when analyzed by Cheng, Tracy and Henrich. We also found these items too subjectively broad and not specific enough to dominance compared to prestige or general aggression and hot-headedness.

Prestige:

1. I like it when other people want to be like me

2. I like when others seek my advice on a variety of matters

3. It's not important to me that others value my opinion (r)

4. It is important to me that I am held in high esteem by people I know

5. I would like to be considered an expert by others

6. I would like to be respected and admired by others

7. Being recognized for my talents and abilities is not important to me (r)

All items were taken or adapted from the dominance and prestige scale (Cheng, Tracy, & Henrich, 2010). All items were also modified to capture dominance striving rather than restricting positive responses to successfully dominant individuals. Item 1 was also modified to not be reverse scored to retain the meaning of the original item after modifying it. Item 3 was modified to be reverse scored so the scale would include multiple reverse-scored items.

D. **Need to Belong Scale** (Leary, Kelly, Cottrell, & Schreindorfer, 2013)

1. I need to feel that there are people I can turn to in times of need

2. I seldom worry about whether other people care about me (r)

3. I try hard not to do things that will make other people avoid or reject me

4. It bothers me a great deal when I am not included in other people's plans

5. My feelings are easily hurt when I feel that others do not accept me

6. I want other people to accept me

7. It's important to me that other people enjoy my company

E. Short Dark Triad (SD3) (Jones & Paulhus, 2014)

Machiavellianism:

1. It's not wise to tell your secrets.

2. I like to use clever manipulation to get my way.

3. Whatever it takes, you must get the important people on your side.

4. Avoid direct conflict with others because they may be useful in the future.

5. It's wise to keep track of information that you can use against people later.

6. You should wait for the right time to get back at people.

7. There are things you should hide from other people to preserve your reputation.

8. Make sure your plans benefit yourself, not others.

9. Most people can be manipulated.

Narcissism:

1. People see me as a natural leader.

2. I hate being the center of attention. (R)

3. Many group activities tend to be dull without me.

4. I know that I am special because everyone keeps telling me so.

5. I like to get acquainted with important people.

6. I feel embarrassed if someone compliments me. (R)

7. I have been compared to famous people.

8. I am an average person. (R)

9. I insist on getting the respect I deserve.

Psychopathy

1. I like to get revenge on authorities.

2. I avoid dangerous situations. (R)

3. Payback needs to be quick and nasty.

4. People often say I'm out of control.

5. It's true that I can be mean to others.

6. People who mess with me always regret it.

7. I have never gotten into trouble with the law. (R)

8. I enjoy having sex with people I hardly know.

9. I'll say anything to get what I want.

F. HEXACO-PI-R

1 _____ I would be quite bored by a visit to an art gallery.
2 _____ I plan ahead and organize things, to avoid scrambling at the last minute.
3 _____ I rarely hold a grudge, even against people who have badly wronged me.
4 _____ I feel reasonably satisfied with myself overall.
5 _____ I would feel afraid if I had to travel in bad weather conditions.
6 _____ I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succee
7 _____ I'm interested in learning about the history and politics of other countries.
8 _____ I often push myself very hard when trying to achieve a goal.
9 _____ People sometimes tell me that I am too critical of others.
10 _____ I rarely express my opinions in group meetings.
11 _____ I sometimes can't help worrying about little things.

12 _____ If I knew that I could never get caught, I would be willing to steal a million dollars.

13 _____ I would enjoy creating a work of art, such as a novel, a song, or a painting.

14 _____ When working on something, I don't pay much attention to small details.

15 _____ People sometimes tell me that I'm too stubborn.

16 _____ I prefer jobs that involve active social interaction to those that involve working alone.

17 _____ When I suffer from a painful experience, I need someone to make me feel comfortable.

18 _____ Having a lot of money is not especially important to me.

19 _____ I think that paying attention to radical ideas is a waste of time.

20 _____ I make decisions based on the feeling of the moment rather than on careful thought.

21 _____ People think of me as someone who has a quick temper.

22 _____ On most days, I feel cheerful and optimistic.

23 _____ I feel like crying when I see other people crying.

24 _____ I think that I am entitled to more respect than the average person is.

25 _____ If I had the opportunity, I would like to attend a classical music concert.

26 _____ When working, I sometimes have difficulties due to being disorganized.

27 _____ My attitude toward people who have treated me badly is "forgive and forget".

28 _____ I feel that I am an unpopular person.

29 _____ When it comes to physical danger, I am very fearful.

30 _____ If I want something from someone, I will laugh at that person's worst jokes.

31 _____ I've never really enjoyed looking through an encyclopedia.

32 _____ I do only the minimum amount of work needed to get by.

33 _____ I tend to be lenient in judging other people.

34 _____ In social situations, I'm usually the one who makes the first move.

35 _____ I worry a lot less than most people do.

36 _____ I would never accept a bribe, even if it were very large.

37 _____ People have often told me that I have a good imagination.

38 _____ I always try to be accurate in my work, even at the expense of time.

39 _____ I am usually quite flexible in my opinions when people disagree with me.

40 _____ The first thing that I always do in a new place is to make friends.

41 _____ I can handle difficult situations without needing emotional support from anyone else.

42 _____ I would get a lot of pleasure from owning expensive luxury goods.

43 _____ I like people who have unconventional views.

44 _____ I make a lot of mistakes because I don't think before I act.

45 _____ Most people tend to get angry more quickly than I do.

46 _____ Most people are more upbeat and dynamic than I generally am.

47 _____ I feel strong emotions when someone close to me is going away for a long time.

48 _____ I want people to know that I am an important person of high status.

49 _____ I don't think of myself as the artistic or creative type.

50 _____ People often call me a perfectionist.

51 _____ Even when people make a lot of mistakes, I rarely say anything negative.

52 _____ I sometimes feel that I am a worthless person.

53 _____ Even in an emergency I wouldn't feel like panicking.

54 _____ I wouldn't pretend to like someone just to get that person to do favors for me.

55 _____ I find it boring to discuss philosophy.

56 _____ I prefer to do whatever comes to mind, rather than stick to a plan.

57 _____ When people tell me that I'm wrong, my first reaction is to argue with them.

58 _____ When I'm in a group of people, I'm often the one who speaks on behalf of the group.

59 _____ I remain unemotional even in situations where most people get very sentimental.

60 _____ I'd be tempted to use counterfeit money, if I were sure I could get away with it.

G. Vignettes

Items: appear after each vignette

1. Imagine being <u>Alex</u> in the above story. If you knew you could get away with your

   behavior with no consequences (social, physical, or emotional) how likely is it

   that you would do what <u>Alex</u> did?

2. If you did what Alex did in the above story, how much would you enjoy it?

3. If you were witnessing Alex's behavior in the above story, how much would you

   enjoy watching?

Vignettes: condition is noted in bold above the vignette.

A. Prosocial

Alex is at a bar with co-workers on a Friday evening. A man who has become drunk and rowdy starts shouting insults at people in the bar, including Alex and his co-workers. He starts walking around, banging on tables and shoving people and eventually gets kicked out. When Alex and his friends leave the bar, they notice the drunk man outside still shouting at people aggressively. Alex takes a swing and punches the man in the stomach. He doubles over, cries out in pain and hurries into a nearby alleyway.

Socially neutral

Alex is at a bar with co-workers on a Friday evening. He starts talking to a drunk stranger sitting next to them. The stranger makes a snide comment about Alex's job. Alex turns away from the conversation, but the stranger continues to belittle him and starts yelling threats. Alex scoffs and heads toward the bathroom before leaving. On his way to his car, out, he notices the stranger outside. As Alex walks by, he takes a swing and punches the man in the stomach. The man doubles over, cries out in pain and hurries into a nearby alleyway.

Antisocial

Alex is at a bar with coworkers on a Friday evening. He starts talking to a drunk stranger sitting next to them. The stranger says bye to Alex and his coworkers steps outside to take a phone call. After finishing his drink, Alex starts to head home and notices the stranger outside. As Alex walks by he takes a swing and punches the man in the stomach. The man doubles over, cries out in pain and hurries into a nearby alleyway.

B. Prosocial

Sam lives in an apartment building infested with rats. The rats are often found chewing through walls and furniture or in kitchen cupboards, scaring the people who live there. Sam comes home one evening to a rat in the hallway, trying to burrow through his neighbor's door. He swings off his backpack full of books and drops it on the rat. Lifting the bag, he finds the rat struggling to run away with a broken leg. Sam drops his bag on the rat again, putting down more pressure and killing it.

Socially neutral

Sam sometimes finds rats in his kitchen, chewing through bags of food and making a mess of his garbage. He comes home one evening to find a rat in his fruit bowl, chewing through fruit and making a mess. Sam swings off his backpack full of books and drops it on the rat. Lifting the bag, he finds the rat struggling to run away with a broken leg. Sam drops his bag on the rat again, putting down more pressure and killing it.

Antisocial

Sam lives in an apartment building next to a couple with a dog and two pet rats. He comes home one evening to find one of the rats hiding in the corner of the hallway. He realizes the rat must have escaped from his neighbor's apartment. He swings off his backpack full of books and drops it on the rat. Lifting the bag, he finds the rat struggling to run away with a broken leg. Sam drops his bag on the rat again, putting down more pressure and killing it.

C. Prosocial

Elena is an inmate at a women's prison. Her new roommate Jasmine has been unfairly aggressive toward other inmates, causing chaos and upset. One night Elena decides to

confront Jasmine and they start fighting. Elena pins Jasmine against the wall and punches her in the jaw, telling her it's a warning to stay in line and tone down her aggression. Jasmine laughs so Elena hits her again, harder and in her stomach. Jasmine falls to the ground coughing, hurt and humiliated.

Socially neutral

Elena is an inmate at a women's prison. Her new roommate Jasmine has been stealing from her and threatening her. Jasmine has kept her distance and been respectful of other prisoners but considers Elena an easy target. One night Elena gets out of bed, pins Jasmine against the wall, and warns her to back off. Jasmine laughs and spits in her face, so Elena punches her in the jaw and tells her that's her second warning. Jasmine laughs again so Elena hits her harder and in her stomach. Jasmine falls to the ground coughing, hurt and humiliated.

Antisocial

Elena is an inmate at a women's prison. Her new roommate Jasmine has kept to herself so far and been respectful of the other women. Seeing her as an easy target, Elena decides to enforce her superior position on Jasmine one night. Elena gets out of her bunk, throws Jasmine out of bed, and pins her against the wall. Elena punches Jasmine in the jaw, telling her to stay in line and do as she says. Jasmine stares at Elena in fear. Elena hits Jasmine again, harder and in her stomach. Jasmine falls to the ground coughing, hurt and humiliated.

D. Prosocial

Noah is a college football player. His teammate Desmond is overly aggressive toward others on the team. Desmond even purposefully tackled and broke a teammate's arm. The

team complained to the coaches, but Desmond hasn't been benched. Taking matters into his own hands, Noah tackles Desmond at practice and warns him to stop bullying. Desmond laughs. Noah twists Desmond's arm around his back, giving him a final warning. Noah snaps his arm, leaving him unable to hurt his teammates for months. Desmond stays on the ground, hurt and humiliated.

Socially neutral

Noah is a college football player. His teammate Desmond is overly aggressive toward him. Last year, Desmond purposely broke Noah's arm after tackling him. The team complained to the coaches, but Desmond hasn't been benched. Taking matters into his own hands at practice, Noah tackles Desmond and warns him to stop bullying. Desmond laughs. Noah twists Desmond's arm around his back, giving him a final warning. Noah snaps his arm, getting back at him for what he did last year. Desmond stays on the ground, hurt and humiliated.

Antisocial

Noah is a college football player. He has been picking on one of his smaller teammates, Desmond, who doesn't fight back. During practice one day, Noah has the opportunity to tackle Desmond easily. He performs the tackle and laughs at Desmond on the ground, twisting his arm around his back. Noah tells him to beg for mercy. Desmond says nothing, so Noah snaps his arm. Desmond stays on the ground, hurt and humiliated.

E. Prosocial

Mason and his friends are playing soccer at the park. A new kid comes around on his bicycle and starts bullying them, taking Mason's friend's soccer ball. Mason asks for the ball back and tells the new kid to either join in with them or leave them alone. The new

kid laughs and tries to get back on his bike to ride away with the ball. Mason kicks the

bully's pedal, causing him and his bike to fall over. He starts crying and drops the ball.

Socially neutral

Mason is playing with a soccer ball at the park. A new kid comes around on his bicycle

and starts bullying Mason, and takes his ball. Mason asks for the ball back, and tells the

new kid to either join in with him or leave him alone. The new kid laughs and tries to get

back on his bike to ride away with the ball. Mason kicks the bully's pedal, causing him

and his bike to fall over. The bully starts crying and drops the ball.

Antisocial

Mason is playing with a soccer ball at the park. A new kid comes around on his bicycle

and asks Mason if they can play together. Mason pretends like he wants to play with the

new kid, but when he gets close he laughs and kicks the bully's pedal, causing him and

his bike to fall over. The new kid starts crying and drops the ball.

F. Prosocial

Mall security guard Lauren carries a taser. She is surveying the parking lot when she

notices a drunk man running around breaking car windows with a bat. Lauren approaches

him and yells at him to stop, he pretends not to hear her. Lauren gets closer and the man

tries to run away. Lauren tases him and he falls to the ground, shaking violently.

Socially neutral

Mall security guard Lauren carries a taser. She is surveying the parking lot when she

notices a drunk man running around with a bat. He approaches Lauren's car window as if

he is about to smash it. Lauren approaches him and yells at him to stop, he pretends not to

hear her. The man takes another step toward her car, so Lauren tases him and he falls to the ground, shaking violently.

Antisocial

Mall security guard Lauren carries a taser. She is surveying the parking lot when she notices a drunk man walking around the lot. Lauren approaches him and yells at him to stop moving, but the man pretends not to hear her. Wanting to try out her new taser, Lauren steps toward him and tases him. He falls to the ground, shaking violently.

G. Prosocial

A third grade class is getting tests back. The teacher is disappointed in the grades and reads a particularly bad example out loud. The students laugh and look around at each other. Emily sits next to Marcus, the class bully who loves to call other kids stupid. She realizes it would be a great idea to tell everyone it was his response. She says, "It's stupid Marcus' answer!". Everyone looks at Marcus and bursts into laughter. He says it wasn't his, but kids laugh over him. Embarrassed, he puts his head down on the desk and starts to cry.

Socially neutral

A third grade class is getting tests back. The teacher is disappointed in the grades and reads a particularly bad example out loud. The students laugh and look around at each other. Emily, who sits next to her bully Marcus, decides it would be a great idea to get back at him by saying it was his answer. She says, "It's stupid Marcus' answer!". Everyone looks at Marcus and bursts into laughter. He says it wasn't his, but kids laugh over him. Embarrassed, he puts his head down on the desk and starts to cry.

Antisocial

A third grade class is getting tests back. The teacher is disappointed in the grades and reads a particularly bad example out loud. The students laugh and look around at each other. Emily thinks it would be funny to pick on the boy who sits beside her, Marcus. She says, "It's stupid Marcus' answer!". Everyone looks at Marcus and bursts into laughter. He says it wasn't his, but kids laugh over him. Embarrassed, he puts his head down on the desk and starts to cry.

H. Prosocial

Olivia is at the office dreading a meeting because her boss Eve is verbally abusive. Eve calls her employees useless and shoots down all their ideas. Most employees are angry about the way Eve treats them, but there isn't much they can do. While Eve is presenting, she makes a mistake. Olivia clears her throat and corrects Eve rudely. Eve blushes and stumbles over her words. Humiliated, Eve has to stop and leave the room. The employees grin and snicker.

Socially neutral

Olivia is at the office dreading a meeting because her boss Eve is verbally abusive toward her. Eve shoots down all of Olivia's ideas and calls her useless. Other employees feel sorry for Olivia, but are too scared to stand up for her. While Eve is presenting, she makes a mistake. Olivia clears her throat and corrects Eve rudely. Eve blushes and stumbles over her words. Humiliated, Eve has to stop and leave the room. The employees grin and snicker.

Antisocial

Olivia is in a meeting with her coworkers and boss, Eve. While Eve is presenting, she makes a mistake, and the employees look around at each other. Olivia clears her throat and corrects Eve rudely. Eve blushes and stumbles over her words. Humiliated, Eve has to stop and leave the room. The employees grin and snicker.

I. Prosocial

Dr. Meyers answers medical questions on an online forum. She knows of a doctor on the same forum who often gives out incorrect medical advice. Concerned about the integrity of the forum, Dr. Meyers takes matters into her own hands and begins to reply to the doctor when he gives out faulty information. Not only does she correct him, but she shames him and insults his practice. Moderators review the doctor and ban him from the forum, cutting him off of potential clients. The doctor posts a public apology and begs to be let back on, but the moderators refuse.

Socially neutral

Dr. Meyers answers medical questions on an online forum. Recently she has come across some responses by a doctor who was very rude to her at a conference. Dr. Meyers responds to his posts with corrections, also embarrassing him by shaming him and insulting his practice. Moderators review the doctor and ban him from the forum, cutting him off of potential clients. The doctor posts a public apology and begs to be let back on, but the moderators refuse.

Antisocial

Dr. Meyers answers medical questions on an online forum. Every once in a while she finds it fun to reply to other doctors' posts, making it look like they're giving out wrong

advice and shaming them by insulting their practice. After targeting one doctor for a couple weeks, the moderators review his content and ban him from the forum, cutting him off of potential clients. The doctor posts a public apology and begs to be let back on, but the moderators refuse.

J. Prosocial

Ava is getting coffee before work. The line is long and moving slowly. The man in front of Ava begins to complain to the cashier about the line and blame him for the hold-up. The other customers in line are irritated with the man's rudeness. To stand up for the cashier and get the line moving, Ava bumps into the man and yells that he's trying to steal her wallet. The man looks at him in confusion and Ava yells "get out of here!". The other customers gasp and give the man angry looks. He blushes and runs out of the store, humiliated and ashamed.

Socially neutral

Ava is getting coffee before work. The line is long and moving slowly. The man in front of Ava turns to leave while distracted on his phone, and bumps into her. The hot coffee spills all over her. Irritated with the man's rudeness, Ava bumps into him and yells that he's stealing her wallet. The man looks up, confused, and Ava yells "get out of here!". The other customers gasp and give the man angry looks. He blushes and runs out of the store, humiliated and ashamed.

Antisocial

Ava is getting coffee before work. The line is long and moving slowly. Ava sees a man on his way out with coffee, and decides it would be funny to embarrass him. As he walks by, Ava leans toward him so that he bumps into her. She yells "he's stealing my wallet!".

The man looks up, confused, and Ava yells "get out of here!". The other customers look at the man disapprovingly. He blushes and runs out of the store, humiliated and ashamed.

K. Prosocial

Courtney is out with friends when she notices a guy she knows on a date. Courtney remembers him because he cheated on two of her friends. She doesn't want the girl he's with to get involved with him, so Courtney goes up to their table and says hi. She loudly calls the guy a "pathetic cheater" and throws her drink on him. He looks at his date too shocked and embarrassed to say anything and heads toward the bathroom.

Socially neutral

Courtney is at the bar with her friends when she notices her ex-boyfriend on a date. They had a messy breakup, and to get back at him, Courtney decides to ruin his date. She goes up to their table and says hi. She turns to the woman and loudly tells her that her ex is a "pathetic cheater" and throws her drink on him. He looks at his date too shocked and embarrassed to say anything and heads toward the bathroom.

Antisocial

Courtney is at a bar with her friends when she notices a couple who seems to be on a first date. Courtney decides she wants to see what would happen if she embarrasses them. She goes up to their table and says hi. She turns to the woman and loudly tells her the guy is a "pathetic cheater" and throws her drink on him. He looks at his date too shocked and embarrassed to say anything and heads toward the bathroom.

L. Prosocial

Evelyn is close to a promotion. She has been blaming other people for her mistakes around the office, and the other employees think her promotion will be unfair. They

complain to the boss, who comes to understand all of Evelyn's lying and mistakes. At the monthly meeting, Alisha asks Evelyn to stand up. Everyone expects Evelyn to receive a promotion. Instead, Alisha tells Evelyn that she won't be getting a promotion and humiliates her in front of the other employees. Evelyn tears up and leaves the office for the day.

Socially neutral

Evelyn used to be Alisha's boss; she often abused her power and made Alisha's work difficult and unpleasant. Now they work in a different business and Alisha is Evelyn's boss. Evelyn should be up for promotion soon, but Alisha decides to get back at her. At the monthly meeting, Alisha asks Evelyn to stand up. Everyone expects Evelyn to receive a promotion. Instead, Alisha tells Evelyn that she won't be getting a promotion and humiliates her in front of the other employees. Evelyn tears up and leaves the office for the day.

Antisocial

Evelyn is a reliable employee, but her boss Alisha has never been nice to her. Evelyn seems close to a promotion, but Alisha has other plans for her. At the monthly meeting, Alisha asks Evelyn to stand up. Everyone expects Evelyn to receive a promotion. Instead, Alisha tells Evelyn that she won't be getting a promotion and humiliates her in front of the other employees. Evelyn tears up and leaves the office for the day.

M. Prosocial

Rachel and Arianna go to the same high school. Rachel is known for making fun of people and spreading rumors. At prom, Arianna knows that Rachel would be humiliated if her date left without her. Arianna decides this would be a good way to get back at

Rachel for all she's put the other girls at their school through. While Rachel is in the bathroom, Arianna convinces Rachel's date to leave with her. When Rachel gets back, everyone looks at her, and she realizes her date is gone. Her face turns red and she runs to the bathroom while everyone else laughs.

Socially neutral

Rachel and Arianna go to the same high school. Rachel has always been mean to Arianna, and stole her date for a dance last year. At prom, Arianna convinces Rachel's date to leave with her to get back at her. When Rachel gets back from the bathroom, everyone looks at her, and she realizes her date is gone. Her face turns red and she runs to the bathroom while everyone else laughs.

Antisocial

Rachel and Arianna go to the same high school. Arianna has never really liked Rachel, and when they meet at prom, she decides it would be funny to embarrass her. Arianna knows Rachel would be humiliated if her date left without her. While Rachel is in the bathroom, Arianna convinces Rachel's date to leave with her. When Rachel gets back, everyone looks at her, and she realizes her date is gone. Her face turns red and she runs to the bathroom while everyone else laughs.

N. Prosocial

Professor Miller's student Kevin has been disrupting class and making other students uncomfortable for months. Kevin refuses to change his behavior. When the class ends, Kevin asks Dr. Miller for a recommendation letter. Dr. Miller doesn't want to be responsible for a company hiring an awful employee. Knowing the letters aren't read by applicants, he decides to write a nasty letter and describes how awful of a student Kevin

was. A couple months later, Dr. Miller runs into Kevin and asks him about the job. Kevin looks worried and depressed; he explains that he didn't get it and is having a hard time getting hired anywhere.

Socially neutral

Professor Miller's student Kevin has been harassing him about grades for months. Kevin is a good student but does not respect Dr. Miller's assignments and whines about them. When the class ends, Kevin asks Dr. Miller for a recommendation letter. Knowing the letters aren't read by applicants, Dr. Miller decides to write a nasty letter describing how awful of a student Kevin was. A couple months later, Dr. Miller runs into Kevin and asks him about the job. Kevin looks worried and depressed; he explains that he didn't get it and is having a hard time getting hired anywhere.

Antisocial

Dr. Miller has come to dislike one is his students, Kevin, for no particular reason. When the semester ends, Kevin asks Dr. Miller for a recommendation letter. Knowing the letters aren't read by applicants, Dr. Miller decides to write that Kevin was a horrible student, knowing this will prevent him from getting hired. A couple months later, Dr. Miller runs into Kevin and asks him about the job. Kevin looks worried and depressed; he explains that he didn't get it and is having a hard time getting hired anywhere.

O. Prosocial

Haley is known around the office for being rude and bad-mouthing other employees. It's her turn to present at their weekly meeting, and she leaves her laptop on the table to get coffee. Another employee, Amelia, realizes she could get back at Haley for being an awful co-worker by deleting the presentation from her computer. Amelia quickly deletes

the presentation, empties the trash, and sits back down. When Haley goes to set up her presentation, she realizes it's gone missing. She tries to explain that she doesn't know what happened, but the boss lectures her for not being prepared. Haley begins to cry and leaves the meeting room quickly.

Socially neutral

Amelia's coworker Haley has been disrupting her presentations all year and bad-mouthing her to their boss. It's Haley's turn to present at their weekly meeting, and she leaves her computer on the table to get coffee. Amelia realizes she could get back at Haley for harming her reputation at work. She quickly deletes Haley's presentation, empties the trash, and sits back down. When Haley goes to set up her presentation, she realizes it's gone missing. She tries to explain that she doesn't know what happened, but the boss lectures her for not being prepared. Haley begins to cry and leaves the meeting room quickly.

Antisocial

Haley is about to give a presentation at her company's weekly meeting. She leaves her computer on the table to get coffee. Another employee, Amelia, realizes she can ruin Haley's presentation and think it would make the meeting less boring. She quickly deletes the presentation, empties the trash, and sits back down. When Haley goes to set up her presentation, she realizes it's gone missing. She tries to explain that she doesn't know what happened, but the boss lectures her for not being prepared. Haley begins to cry and leaves the meeting room quickly.

P.   Prosocial

Sam has been spreading rumors about Chloe and her friends. Sam has a history of doing this to other girls for no apparent reason. To get Sam to stop bothering everyone at their school, Chloe decides to spread a rumor about Sam. Chloe tells people that she overheard Sam talking about cheating on her boyfriend. It turns out that Sam actually was cheating: when her boyfriend confronts her about it, she confesses, and he immediately breaks up with her. Sam avoids school for a few days because she is humiliated and heartbroken that she lost her boyfriend.

Socially neutral

Sam spread a false rumor that another girl at her school, Chloe, had herpes. This causes issues for Chloe and her boyfriend, who isn't sure who to believe. Chloe doesn't know why Sam spread this rumor about her, but she decides to get back at Sam. Chloe starts telling people that she overheard Sam talking about cheating on her boyfriend. It turns out that Sam actually was cheating: when her boyfriend confronts her about it, she confesses and he immediately breaks up with her. Sam avoids school for a few days because she is humiliated and heartbroken about losing her boyfriend.

Antisocial

Chloe notices a girl Sam and her boyfriend in the hallway at school. They look happy, and Chloe thinks it would be funny to see what happens if she spread a rumor about them. Chloe starts telling people she overheard Sam talking about cheating on her boyfriend. When Sam's boyfriend confronts her about it, she's confused and doesn't know what to say. The boyfriend assumes the worst and breaks up with Sam. Sam avoids

school for a few days because she is humiliated and heartbroken about losing her boyfriend.

Q. Prosocial

Josh and his friends are going camping this weekend. Last time they went, Josh's roommate Lucas invited himself. Lucas brought his aggressive dog, didn't contribute to food, and complained the whole time. While Josh is packing, Lucas tells him he wants to join them again and asks where they're going. To avoid Lucas showing up and ruining everyone's trip again, Josh gives him information for the wrong campsite. Lucas arrives to find nobody there He's confused and calls Josh multiple times. When Josh doesn't pick up Lucas realizes he's been rejected and heads home, embarrassed and upset.

Socially neutral

Josh and his friends are going camping this weekend. Last time they went, Josh's roommate Lucas invited himself. Lucas didn't prepare for the trip so he ate Josh's food and brought his dog who tore up Josh's car. While Josh is packing, Lucas tells him he wants to join them again and asks where they're going. Still angry about what happened the last time, Josh gives him information for the wrong campsite. Lucas arrives to find nobody there. He's confused and calls Josh multiple times. When Josh doesn't pick up Lucas realizes he's been rejected and heads home, embarrassed and upset.

Antisocial

Josh and his friends are going camping this weekend. Last time they went, Josh's roommate Lucas tagged along. Lucas sees Josh packing and asks him where he's going. Josh doesn't feel like spending the weekend with his roommate and thinks it would be funny to give him information for the wrong campsite. Lucas arrives to find nobody

there. He's confused and calls Josh multiple times. When Josh doesn't pick up Lucas

realizes he's been rejected and heads home, embarrassed and upset.

R. Prosocial

Taylor is using a school computer when she notices another girl, Karly, hasn't logged out

of Facebook. She opens up her messages to see naked photos. Taylor is shocked because

Karly is a popular girl who shames other girls and calls them sluts. Realizing this would

ruin Karly's reputation and make the other girls feel better about themselves, Taylor

saves the photos. She prints out copies and slips them into girls' lockers early next

morning. When Karly arrives at school everyone is talking about the photos, and Karly's

locker says "SLUT". She starts crying and goes to the nurse's office to be sent home for

the day.

Socially neutral

Taylor is using a school computer when she notices a popular girl, Karly, hasn't logged

out of Facebook. She opens up her messages to see naked photos. Taylor is shocked

because Karly has called her a slut and shamed her for having sex. Realizing this would

humiliate Karly and get her back for what she did, Taylor saves the photos. She prints out

copies and slips them into girls' lockers early next morning. When Karly arrives at school

everyone is talking about the photos, and Karly's locker says "SLUT". She starts crying

and goes to the nurse's office to be sent home for the day.

Antisocial

Taylor is using a school computer when she notices Karly hasn't logged out of Facebook.

She opens up her messages to see naked photos. Realizing this would humiliate Karly,

Taylor saves the photos. She prints out a bunch of copies and slips them into girls'

lockers early next morning. When Karly arrives at school everyone is talking about the

photos, and Karly's locker says "SLUT". She starts crying and goes to the nurse's office

saying she needs to be sent home for the day.

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