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**TRAIT SADISM IN BDSM PRACTITIONERS AND NON-PRACTITIONERS**

**BY**

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B.S., Psychology, Neuroscience and Behavior, McMaster University, 2015  
M.S., Psychology, University of New Mexico, 2019

DISSERTATION

Submitted in Partial Fulfillment of the  
Requirements for the Degree of  
**Doctor of Philosophy**

**Doctor of Philosophy (PhD) in Psychology**

The University of New Mexico  
Albuquerque, New Mexico

**May, 2023**

## ACKNOWLEDGMENTS

Gratitude is owed to my longtime advisors, Dr. Marco Del Giudice and Dr. Geoffrey Miller, for all you've afforded me. I revere your earnest open-mindedness and value for scientific exploration. Sincere thanks go to my other committee members—Dr. Diana Fleischman and Dr. David Ley—without whom I may have had to study something more widely palatable. I also owe deep thanks to Dr. Paul Watson for his scholarly perspective that has allowed me to interact with the world in exceptional ways. Finally, I am indebted to the BDSM practitioners who trusted me with their data for this study.

I appreciate Rikk Murphy and Dr. Romina Angeleri for support that extended beyond what was required of them. Critical acknowledgement also goes to those I worked closely with at UE Local 1466, for rejuvenating my will to work hard for myself and others in academia. You are heroes who gifted me more than scholarship can offer. Most valuable to me was the care of those who opened their homes, wallets, ears, and arms when I couldn't succeed alone: Moriah Stern, David Chinh, Tran Dinh, Chevalier and Chad Davis, Briar McLeod, Jacob Weymouth, Steph Kolton, Sam Ender, Lucas Swinden, Barb Hanel, Sam Tyson, Chance Strenth, Jeanette and Garth Russell, Megan Burrow, Elena Stein, Vicki Gonzales, Jan Henley, Nathan Reed, Amanda Rubinstein-Stern, Michael Faulks, Jens Van Gysel, Michael Lahaorgue, Stephanie Fox, Josh Maxwell, and Dedra Aguilar. I owe all else to my partner, Allie Hendren, and the rest of my family, Adam Alic, Adrian Russell, Eve Beetstra, Clinton Russell, Joyce Logan, Ruby, Maggie, Marci, and each of my angel rats, for their help in countless abstract ways.

**TRAIT SADISM IN BDSM PRACTITIONERS AND NON-PRACTITIONERS****by****Marley J. Russell****B.S., PSYCHOLOGY, NEUROSCIENCE AND BEHAVIOR, MCMASTER  
UNIVERSITY, 2015****M.S., PSYCHOLOGY, UNIVERSITY OF NEW MEXICO, 2019****PHD, PSYCHOLOGY, UNIVERSITY OF NEW MEXICO, 2023****ABSTRACT**

Sadism is an elusive construct within psychology. Multiple types are studied without clear psychometric or theoretical distinctions, and operationalizations of these respective sub-constructs lack validity. This study explores the empirical distinction between two sadism types: consensual sexual sadism (i.e. in the context of BDSM) and trait sadism. Trait sadism is widely synonymized with “everyday sadism”, but here conceptualized as a higher-order construct encompassing both everyday and a novel “prosocial sadism”. I develop and pilot the BDSM Identities and Behaviors (BIB) checklist in a sample of BDSM practitioners. I then compare those practitioners to non-practitioners on trait sadism and dark triad personality traits. Exploratory results indicate preliminary validity of the BIB checklist and lower prosocial sadism, narcissism, psychopathy, and Machiavellianism scores among practitioners than non-practitioners. The generalizability of these results specifically are discussed alongside the generalizability of aggression-related scales to BDSM practitioners.

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## Chapter 1: Introduction

### Sadism: A Heterogeneous and Pervasive Construct

Sadism is complex to define. In psychology, it refers to several subjectively distinct sub-constructs that share the concept of aggression enjoyment. *Sexual sadism* typically refers to a sexual paraphilia for inflicting pain or suffering on non-consenting others (e.g. American Psychological Association (APA), 2013; Nitschke et al., 2009). It can also refer colloquially to a seemingly distinct fetish for inflicting pain or suffering on consenting and enthusiastic sexual partners. The latter is conceptualized within a heterogeneous construct—BDSM—reflecting a typically sexual practice, “orientation” or lifestyle focused on *bondage and discipline* (BD), *dominance and submission* (DS), and *sadism and masochism* (SM) (e.g. Rodemaker, 2008). Outside the domain of sexuality, *everyday sadism* (ES) refers to a subclinical personality trait promoting gratuitous aggression across social and mating contexts. This trait is typically framed as promoting antisocial aggression, both verbal and physical, but not criminal violence to the degree typified by clinical sexual sadism (e.g. Paulhus, 2014; Buckels et al., 2013; Plouffe et al., 2019; Reidy et al., 2011; O’Meara et al., 2011). The initial sections of this chapter briefly introduce the three sadism constructs as they’re described in their respective literatures. Despite their subjective distinctions, they’re each defined by a propensity for aggression promoted by an associated pleasure.

#### ***A Brief History of “Sadism”***

The recorded history of instances of sadism begins no later than the 4<sup>th</sup> century by the first publication of the Kama Sutra. It contained visual and

written descriptions of sexually aggressive acts such as biting and slapping. This content was already accompanied by theoretical descriptions of the duality of pain as suffering and pleasure in the context of arousal. Descriptions explicitly linking sexuality and suffering, humiliation, pain, or other elements of BDSM increase in frequency throughout early modern to modern history (e.g. Taylor, 1954).

A less reductive literature review depicts practices that could arguably fall under the sadism construct as early as the 4<sup>th</sup> century and increasingly into the Middle Ages. Historians suggest that flagellation, for example, originated from elements of the ancient Catholic practice of “mortifying the flesh”. Mortification of the flesh is estimated to have originated no later than the 4<sup>th</sup> century and presents historically with elements similar to its contemporary counterpart. Hands as tools are described at the mildest form of a behavioral continuum extending to whips and rods inflicting lasting pain and damage at the opposite end (Yamamoto-Wilson, 2013; Gibson, 1978; Cooper, 2001; Taylor, 1970; Bullough, 1976). It’s often unclear which type(s) of contemporary *sadism* may have motivated these practices, but the Kama Sutra is a notable early exception. It depicts aggression and sexuality that are explicitly associated with one another outside of a coercive context, resembling some analogue of contemporary BDSM.

By the 18<sup>th</sup> century scholars began to describe sadism associated with explicitly coercive, antisocial, and usually violent and criminal aggression. The Marquis de Sade’s most prolific publication, the semi-autobiographical *120 Days of Sodom*, depicts four wealthy men enacting a wide range of non-consensual and violent sexual acts against young men and women held

captive in a Medieval castle. In the subsequent century, Sade's eponymous construct, *sadism*, was explored in similar detail by Leopold von Sader-Masoch, along with the construct that would become known as *masochism*. At this point, the idea of "sadism" began to connote non-consensual behavior committed by antisocial or pathological people, and prominent academics such as Krafft-Ebing and Freud began to conceptualize sadism as an explicitly disordered state (e.g. Krafft-Ebing, 1886; Freud, 1905).

The lack of explicit discernment between consensual vs. coercive, and sexual vs. unfocused manifestations of sadism has continued in contemporary literature. Cross-disciplinary sadism literature suggests three vaguely distinct constructs without corresponding theoretical discussion or empirical research assessing whether they represent homogeneous latent variables (e.g. Stern, 2010; Higgs et al., 2021). The following section reviews the operationalization of each as currently construed in their respective literatures. It then consolidates the psychophysiological correlates of everyday sadism and empirical findings about BDSM that informed the current study design and measures in tables 1 and 2.

### ***Clinical Sadism***

The APA defines clinical sadism as "Sexual Sadism Disorder" (SSD) in the Diagnostic and Statistical Manual of Mental Disorders (5<sup>th</sup> ed.) (DSM-V) (APA, 2013). It is diagnosed using binary symptom criteria and described as a persistent pattern of sexual arousal as a result of causing or fantasizing about the pain or suffering of others. Persistent refers to a period of longer than six months and a diagnosis is only warranted if the arousal symptoms are associated with distress or dysfunction (APA, 2013). Aside from symptomatic

diagnosis, SSD is operationalized in three ways: psychometric measures, physiological measures (typically a phallometric protocol), or crime scene measures in forensic contexts (Nitschke et al., 2009; Longpré et al., 2016). Clinical and forensic research typically employs one of two dimensional scale measures of the *pathological* sexual sadism they equate with SSD (see Mokros et al., 2011; Nitschke, et al., 2009; Longpré et al., 2019; Stefanska et al., 2018). Within the last decade experimental psychologists have conceded that clinical sexual sadism refers to a dimensional, not categorical, latent condition or syndrome (e.g. Marshall & Kennedy, 2003; Mokros et al., 2014; Longpré et al., 2017; Mokros et al., 2019; Longpré et al., 2019).

Clinical and forensic psychologists agree on multiple precise measures that have been validated in particular ways. They also generally agree, however, that SSD as a general construct is poorly operationalized (see Marshall & Kennedy, 2003; Nitschke et al., 2009; Marshall et al., 2016; Longpré et al., 2019). One issue is unclear psychological and even behavioral boundaries between clinical sexual sadism and the other sadism and aggression constructs. Even within clinical or forensic pathologies, SSD lacks pathognomonic characteristics (Mosby, 2009). One faction of researchers proposed that the coercion facet of SSD (i.e. paraphilic coercion or PC) is unique and an operational distinction from other sadism types. Empirical evidence from several studies has refuted this trait structure, however (e.g. Thornton, 2009; Knight, 2010; Richards & Jackson, 2011; Knight et al., 2013; Longpré et al., 2020; Liu et al., 2022).

SSD lacks discriminant, but also convergent validity: the four primary measures of SSD tend not to agree or be strongly correlated in various

contexts. Some measures indicate a positive diagnosis where others suggest a negative result, and some predict recidivism while others don't (e.g. Longpré et al., 2016; Eher et al., 2015; Marshall et al., 2002; Kingston et al., 2010). It seems possible that these measures intended to capture the same latent construct are measuring different variables.

### ***Trait Sadism***

Distinct from the clinical sadist whose sadistic motivations disrupt their ability to live and thrive as free citizens, subclinical sadists or “everyday sadists” take their aggression to less antisocial extremes. The idea of a distinct subclinical sadism was prompted by research indicating a far from negligible prevalence of sadistic traits and behaviors in non-clinical and non-forensic populations (Coolidge et al., 2001; Chabrol et al., 2009). Personality psychologists began to conceptualize a “subclinical sadism” and study its similarity to other subclinical manifestations of personality pathologies: subclinical narcissism, subclinical psychopathy, and Machiavellianism (e.g. Chabrol et al., 2009; Reidy et al., 2011; APA, 2013). These three traits are known collectively as the *dark triad* of personality, now primarily re-conceptualized as the *dark tetrad* to include everyday sadism (see Paulhus, 2014; Mededovic & Petrovic, 2015; Johnson et al., 2019). Everyday sadism shares sub-facets and behavioral correlates with all dark triad traits, but particularly subclinical psychopathy, and secondarily Machiavellianism (e.g. Paulhus, 2014; Meere & Egan, 2017; Chabrol et al., 2009; 2017).

The informal literary consensus is that at least one facet of everyday sadism is *aggression enjoyment*, and its structure beyond that is inconsistently and unclearly operationalized. Some authors conceptualize the

trait as aggression enjoyment itself, specifically devoid of external motivation (see Paulhus, 2014; Reidy et al., 2011; Buckels et al., 2013). Others subjectively describe or measure the trait with additional facets of social power seeking or callousness (e.g. Plouffe et al., 2019; 2020; Paulhus, 2014; O'Meara et al., 2011). The Short Sadistic Impulse Scale (SSIS) is a binary response scale consisting largely of items depicting aggressive desire devoid of described motivation or purpose (O'Meara et al., 2011). Other common measures are the Assessment of Sadistic Personality (ASP) Scale and the Varieties of Sadistic Tendencies Scale (VAST) (Buckels et al., 2014; Plouffe et al., 2019; 2022). The VAST measures two purported sub-types of sadism: direct (i.e. through first party aggression) and vicarious (i.e. witnessing suffering without inflicting it oneself). The ASP conceptualizes everyday sadism on 3 subscales representing pleasure-seeking (i.e. aggression enjoyment), callousness, and subjugation. Callousness and subjugation are conceptually and psychometrically associated with aberrant empathy and high desire for social power or dominance, respectively (e.g. Waller et al., 2020; Plouffe et al., 2019; Paulhus, 2014; Mededovic & Petrovic, 2015). These two facets are associated with the other dark triad traits to some degree, but pleasure seeking is purported to be a defining feature of (trait) sadism, analogous to aggression enjoyment (e.g. Buckels et al., 2013; Reidy et al., 2011). As with SSD measures, evidence these measures of trait sadism lack convergent validity is unsurprising given the inconsistency of their sub-facets.

Most sadism researchers understandably extend that the association between aggression and pleasure among “everyday sadists” should predispose them to more aggressive behavior. Empirical evidence supports

this general hypothesis, as do the limited experimental studies conducted.

Most of these findings are summarized in table 1 below. In short, trait sadism uniquely predicts indiscriminate and unprovoked aggression that may be associated with aberrant moral reasoning or emotional processing of violent visual stimuli (e.g. Duckitt & Sibley, 2017; Pfattheicher & Schindler, 2015; Ferguson et al., 2003; Sest & March, 2017, Mededovic, 2017). Additionally, there is preliminary evidence suggesting that everyday sadists have uniquely antagonistic attitudes toward mating and romantic relationships (e.g. Tetrault et al., 2017; Koscielska et al., 2019). The research on everyday sadism is mostly limited to particular sub-fields, but there is enough evidence to conclude it is a distinct personality trait with unique social and mating outcomes.



**Table 1***Behavioral and Psychological Correlates of Everyday Sadism (ES)*

Domain	Finding(s)	Citation(s)
Antisocial Behavior Toward Peers	ES is the strongest personality predictor of delinquent behavior among adolescent boys; more antagonistic or criminal workplace and college behaviors.	Chabrol et al., 2009; Fernandez-del-Rio et al., 2021; 2022; Chester et al., 2019; Min et al., 2019
Internet (Virtual) Trolling	ES is the strongest predictor of internet trolling, or one of two strongest along with psychopathy.	Buckels et al., 2014; Craker & March, 2016; March et al., 2017; Sest & March, 2017
Social Punishment	ES predicts less discriminate/more antisocial punishment in public goods games when self-esteem is threatened.	Pfattheicher & Schindler, 2015; Pfattheicher et al., 2017
Moral Judgement	ES predicts minimized impact of intention and causal responsibility when judging others' behavior.	Tremoliere & Djeriouat, 2015
Disgust Sensitivity	ES predicts greater animal reminder (but not contamination or core) disgust.	Meere & Egan, 2017

*Note.* This table is inclusive of most published empirical findings on this topic, but some thematic replications have been omitted for brevity.

**Table 1 (cont.)***Behavioral and Psychological Correlates of Everyday Sadism (ES)*

Domain	Finding(s)	Citation(s)
Sexual Competition	ES predicts more self or other-reported sexual coercion, rape, aggression, conflict within mate pairs <sup>a</sup> , desired control over mates, and antagonistic sexual attitudes (e.g. rape myth acceptance, hostile femininity).	Koscielska et al., 2019; Russell, 2016; Russell et al., 2017; Russell & King, 2016; Plouffe et al., 2020 <sup>a</sup> ; Hughes & Samuels, 2021; Tetrault et al., 2017; Klann, 2017
Miscellaneous Findings	Among DT traits ES is the strongest predictor of positive affect associated with killing bugs, and harming confederates; willingness to incur a cost for the opportunity to inflict pain on innocent confederates; more intense aggression toward dolls; longitudinal increases in violent video game play.	Buckels et al., 2013; Paulhus et al., 2021; Chabrol et al., 2017; Reidy, 2011; Chester et al., 2019; Mededovic & Kovacevic, 2020; Greitemeyer & Saglioglou, 2016

*Note.* This table is inclusive of most published empirical findings on this topic, but some thematic replications have been omitted for brevity.

<sup>a</sup>This finding did not replicate measuring ASP in Canadian post-secondary students.

***BDSM***

BDSM—bondage and discipline, dominance and submission, sadism and masochism—may be the most difficult of the broader sadism constructs to define, partly due to heterogeneity and the interdisciplinary nature of its study. This construct seems to refer, colloquially and objectively, to a construct sharing elements of trait sadism and sexual sadism: the sadism is concentrated (typically, but not necessarily) within the context of sexual gratification, though those who practice or desire BDSM lack the psychopathological element of SSD. Rather than an antisocial behavior that gratifies sexual desire, BDSM practitioners practice only among consenting and equally enthusiastic participants. It's assumed to encompass sexual desires, practices, and preferences that fall under each of the aforementioned categories, seemingly to make for a heterogeneous and psychometrically complex construct.

Research indicates that the type of BDSM practiced varies on many metrics. There are thousands of distinct kinks and roles identifiable across the scholarly literature and online BDSM communities, and even arguably ubiquitous components of BDSM such as power exchange and consent manifest in various forms across practitioners and communities. Unlike trait sadism and SSD, which have relative severity or disruption inherent in their operationalizations, the degree of involvement in BDSM is highly variable. For practitioners, BDSM ranges from one of many infrequent sexual practices to something that is engaged in 24 hours a day, being the central component of one's life around which everything else is designed (e.g. Browne et al., 2019).

In my review, only one research group has attempted to qualify BDSM in a manner allowing for cross-study comparison. Weierstall & Giebel published the Sadoomasochism Checklist in 2017, intended to measure a comprehensive set of kinks and specific behaviors falling under the category of “sadoomasochism”. I describe the theoretical limitations of this scale in the following section, but as of now empirical evidence validating its intended purpose is also limited. Due to unreliable operationalization, prevalence estimates of BDSM are inconclusive, but generally suggest rates of practice that range from not rare to more common than not. Point prevalence of identifying as a practitioner ranges from 2.2-7.6%, and lifetime population prevalence is reported around 10% (e.g. De Neef et al., 2019; Richters, 2008; Holvoet et al., 2017; Strizzi et al., 2020). Lifetime prevalence of engaging in BDSM far exceeds that of identifying as a practitioner, depending on the specific measure—estimates range drastically from 10 to almost 50% in general population samples (e.g. Strizzi et al., 2020; Holvoet et al., 2017; Brown et al., 2019). Reported estimates of fantasizing about participating in BDSM can in turn exceed the frequency of the actual behavior, ranging from 30-60% of adults in general population samples (Joyal, 2015; Joyal et al., 2015).

**Table 2***Psychophysiology of BDSM Practice and Identity*

Domain	Finding(s)	Citation(s)
Social Outcomes (Associated with BDSM Practice)	Positively associated with self-reported social belongingness, acceptance, integration; Described subjectively as decreasing social isolation, increasing belongingness, increasing opportunities for friendship, connections, and enjoyment.	Graham et al., 2016; Hebert & Weaver, 2015; Ha, 2019; Weiss, 2011; Sprott & Hadcock, 2017
Stigma (Associated with <i>Perceptions of</i> BDSM Practice)	Clinicians inappropriately pathologize, lack basic practice knowledge, and hold associated harmful beliefs; are less comfortable working with practitioners than LGBT+ clients; ~ 1/2 of practitioners feel uncomfortable about “outing”	Kelsey et al., 2013; Rodemaker, 2011; Yost, 2010; Lawrence & Love-Crowell, 2008; Connolly, 2006; Ford & Hendrick, 2003

*Note.* Many ethnographic findings have been thematically replicated; these citations represent a selection thereof.

**Table 2 (cont.)***Psychophysiology of BDSM Practice and Identity*

Domain	Finding(s)	Citation(s)
Physiological Outcomes	Lower cortisol after scenes; neurophysiology during scenes associated with arousal, improved affect, less subjective stress; Decreased empathy neurophysiology during humiliation and facial immobilization.	Sagarin et al., 2006; Ambler et al., 2017; Luo & Zhang, 2018
Mating Outcomes	Practice subjectively improves romantic relationships; Practice or scenes associated with similar or better dyadic communication, sexual satisfaction, intimacy, trust, honesty, and excitement.	Kimberly et al., 2018; Rogak & Connor, 2017; Newmahr, 2010; Strizzi et al., 2020
Subjective Well-Being	Various practice components described subjectively as therapeutic, liberating, euphoric, or otherwise appetitive; Practice associated with increased sense of safety, self-esteem, positive affect, and decreased anxiety and anger.	Silva, 2015; Barker et al., 2007; Newmahr, 2010; Wismeijer & van Assen, 2013; Yost, 2010; Baker, 2016; Sprott & Hadcock, 2018; Hebert & Weaver, 2015; Lindemann, 2011

### **Limitations of our Current Understanding**

As suggested above, sadism constructs are imprecisely defined and poorly understood within psychology. The following section details the ways in which our understanding is limited and how those limitations promote the current research design.

### ***Operationalization and Trait Structure***

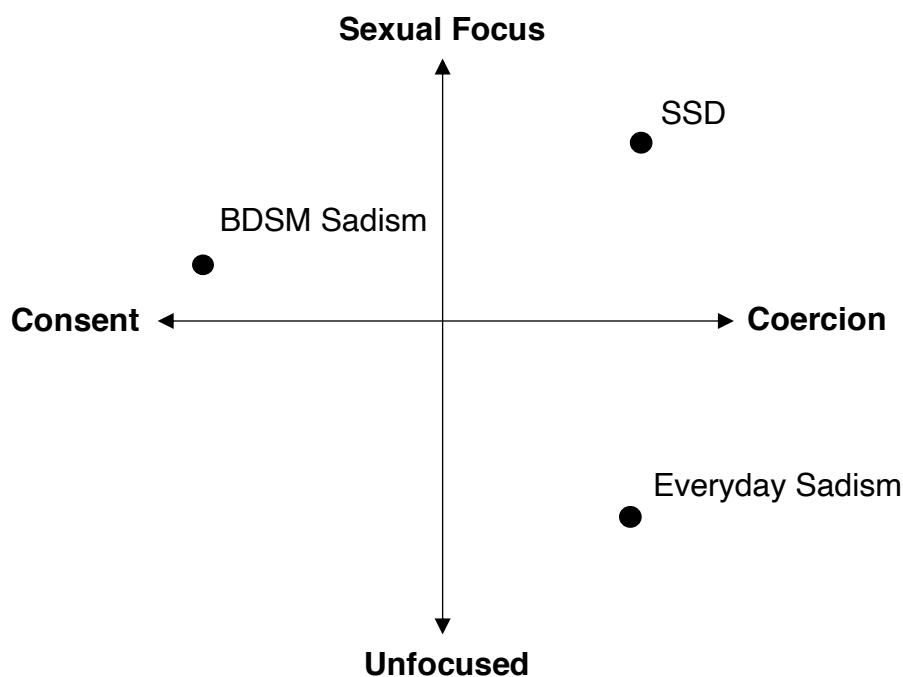
As introduced above, the validity of most sadism measures is questionable at best. Regardless of the specific convergent, discriminant, and content validity of existing measures, however, the depth of our understanding of sadism is ultimately limited by poor construct validity. Due to unreliable and atheoretical operationalizations, the validity of research measuring sadism with existing measures is unclear.

**Subjective Characterization.** Sadism researchers across disciplines appear to have arrived at a mostly unspoken consensus on the three vaguely distinct constructs introduced in the prior section. These can be defined and differentiated subjectively by their placement on two adjacent axes: consent to coercion, and sexual to non-sexual focus, as illustrated in figure 1. This figure represents a subjective summary of the relationship between these constructs as currently described in the scholarly literature. It's unclear whether the constructs that are typically believed to involve degrees of coercion—SSD and trait sadism—are specifically motivated by this coercion (i.e. paraphilic coercion, theoretically), or if consent is simply irrelevant in that context (e.g. Knight, 2010). How the facet of sexual motivation interacts with BDSM-type sadism is unclear. The construct is described as inherently sexual by some scholars, but non-sexual practice motivations are also reported, including

among those not identifying as asexual (e.g. Sagarin, Lee, & Klement, 2015; Simula, 2019; Sloan, 2015). The relationship between sexual and non-sexual BDSM psychology and practice has yet to be examined empirically, however.

### Figure 1

*Subjective Placement of Three Sadism Constructs on Two Theoretical Axes*



*Note.* The two variables represented by the vertical and horizontal axes in this figure are subjectively described as the primary sources of variability between the three most discussed sadism constructs.

The constructs also seem to possibly differ on some dimension or combination of dimensions representing severity (e.g. metrics such as intensity of force or preoccupation with motivation) and social acceptability. Depending on the measure, SSD is characterized with a degree of violence that is at least more severe and less socially palatable than the aggression associated with everyday sadism. For both trait and BDSM-type sadism, however, the dimensionality is not operationalized, and “severity” in the



context of SSD or trait sadism is difficult to generalize to sadism that includes organized safety and consent. Regardless of what this same variable means in the context of BDSM, however, I argue that all potential metrics of severity seem to be distributed dimensionally in the context of BDSM-type sadism.

The consensus described by figure 1 is not directly addressed in the literature nor tested empirically, so the specific content and boundaries of what we're referring to with any of the three constructs remains unclear. Despite some attempts to differentiate between pairs of constructs and clear evidence that the three do represent heterogeneous characteristics, sadism constructs are still conflated, even in scholarly publications (e.g. Marchis, 2019).

**Psychometric Measures.** In the case of trait sadism and clinical sexual sadism, the constructs are defined precisely with purportedly generalizable measures, but evidence suggests these measures don't necessarily align with the authors' associated theories, nor evolutionary theory. Trait sadism, for example, is defined at least partially by aggression enjoyment, but the scales measuring it don't mirror the psychometrics of trait aggression. The VAST differentiates physical from verbal sadism without addressing a relational facet that would parallel relational aggression (Buckels et al., 2013; Buss & Perry, 1992). Additionally, as described earlier, trait sadism is perceived by some authors to possibly include social dominance motivations, but the corresponding measure items reflect pure aggression-enjoyment (O'Meara et al., 2011). The subsequent chapter also covers how our theoretical conceptualization of aggression enjoyment may be overly reductive in the context of trait sadism, and how an alternate

conceptualization may improve validity. In the case of BDSM, empirical measures have scarcely been proposed. Weierstall and Giebel's Sadoomasochism Checklist is limited, in my estimation, due to assumptions about the homogeneity of their estimated SM construct and the comprehensiveness of the measure. Rather than being rooted in any causal theory, the structure of the most common measures of trait sadism and SSD seem predicated on circular logic. They're defined by the scales or qualitative criteria they're measured with, which were originally based on subjectively sadistic behavior observed by clinical and forensic psychologists. Sexual sadism is classified as pathological by the DSM using the same harm/disruption criteria used throughout the manual (APA, 2013). This criterion is arguably useful for clinical purposes. It can be misleading, however, if used to identify constructs intended to approximate latent variables, which is necessary for studying them from a functional perspective (see Lilienfeld & Marino, 1995; Wakefield, 1997). Beyond these validity issues, the dimensionality of sadism constructs have scarcely been addressed. The taxometrics of SSD are actively contested and the dimensionality of BDSM and trait sadism are not focused on in their respective literatures (e.g. Longpre et al., 2013; 2019; Mokros et al., 2014; Liu, 2022). Some trait sadism scales present the trait as a binary variable and others a dimensional one, but this distinction has yet to be addressed, either empirically or theoretically.

**Discriminating Between Constructs.** Beyond the critical issues that come with any poorly operationalized constructs, poor operationalization presents unique challenges in the field of sadism research. Due to the unclear

and possibly inaccurate operationalizations of trait sadism, BDSM, and non-consensual sexual sadism, the factors differentiating these constructs from one another and the boundaries between them are also ill-defined.

Direct comparisons of any of the three primary sadism constructs are scarce, but some sub-fields of research compare facets related to each. Attempts to isolate distinct constructs representing consensual sadism (i.e. BDSM-type) and “paraphilic coercion” (PC), respectively, indicate these variables are better modeled by a single continuum called “sexual agonism” (e.g. Richards & Jackson, 2011; Longpré et al., 2020; Wollert, 2011; Liu et al., 2022). Another research group theorized about the qualitative distinction between BDSM and everyday sadism directly. They proposed that trait sadism captures a general interest in gratuitous aggression while BDSM-type sadism is a sub-type elicited specifically in sexual contexts (Kinrade et al., 2022). This research doesn’t address the consent element of BDSM, however, which subjectively differentiates between those two constructs.

Though their distinctions have not been specified, there is ample evidence suggesting SSD, trait sadism, and consensual sexual sadism capture heterogeneous psychology. Exploratory factor analyses indicate that BDSM and SSD-related items load onto distinct factors in a behavioral checklist measure (Martin et al., 2015). Correspondingly, neither clinical sexual sadism nor any known psychopathology is over-represented among BDSM practitioners (Wismeijer & Van Assen, 2013; Moser, 2002; Brown et al., 2019; Watts et al., 2019). BDSM practice is also not associated with childhood risk factors that predict SSD such as sexual abuse or all-cause trauma (Rogak & Connor, 2018; Richters et al., 2008; Moser, 2002). Everyday

sadism has only been empirically compared in BDSM practitioners and non-practitioners once, in my review, which indicated that the trait wasn't overrepresented even specifically among sadist-identifying practitioners (Erickson & Sagarin, 2021). Certain studies have identified relationships between dark triad traits and various aspects of BDSM practice, but none of these findings have been consistent (Baughman et al., 2014; Williams et al., 2009; Lodi-Smith et al., 2014; Connolly, 2006).

Research has also indicated that BDSM-type and everyday sadism share distinct variance, from each other, with measures of dominance and pleasure (Kinrade et al., 2022). Other findings are consistent with the idea that the social power exchange psychology associated with BDSM is distinct from that associated with everyday sadism. BDSM practitioners have lower than average rape myth acceptance (RMA) and sexism scores, and no higher dominance scores than non-practitioners. Everyday sadism and SSD, however, are associated with higher dominance striving, RMA, and other measures of competitive sexuality (e.g. Klement et al., 2017; Jansen et al., 2020; DeNeef et al., 2019; Russell, 2019). Rather than antisocial constructs like psychopathy and outcomes like sexual coercion, BDSM practice is generally associated with positive relationship and social outcomes, as summarized in table 1 above. The difficulty with interpreting any of these results, however, is that the validity of any chosen measure is questionable at best. Findings specifying or attempting to identify areas of divergence between sadism constructs will be more valuable when replicated with improved measures of the constructs themselves.

## **A Future for the Field**

Here I briefly summarize the overarching research questions about sadism psychology that need prioritizing and introduce how the aims of the current study promote those ultimate research goals.

### ***Overarching Research Questions***

Sadism constructs appear to have high stakes social outcomes and relevance across many academic disciplines, yet basic questions about their psychology have yet to be addressed. Determining anything conclusive about the evolutionary psychology of sadism requires a clearer picture of its psychometric structure and the relationships between its constituting constructs. What exactly are each of the sadism constructs, and how specifically do they relate to one another on psychometric and psychophysiological levels of analysis? Even the idea of these three constructs as the highest-level subcategories of a homogenous “sadism” category should be studied, as this structure was not deliberately defined using bottom-up evidence nor top-down theory. Given uncertainty about the dimensionality of these constructs and their differentiating features, conceptualizing and measuring them as currently established may even be detrimental to the pursuit of accurately assessing the latent sadism variable(s) we seek to understand.

Our ability to study the function or etiology of any sadism construct is limited by unclear trait structures and an apparent lack of convergence between measured variables and their intended constructs. In turn, interventions designed to affect sadism based on current measures are less likely to target relevant psychology. Given a clearer operationalization of

sadism and sadism sub-types, the identified constructs and proximate motivators can be used to test causal questions related to evolutionary etiology. Many potential proximate causes have been identified as correlates of sadism constructs, but most have yet to be studied experimentally such that causal conclusions can be drawn about ontogeny or functionality (see tables 1 and 2). The deeper our understanding of the evolutionary etiology and proximate causes of sadism, the more precise and effective our targets of intervention. Eventually, the potential may exist to modify the development or maintenance of these constructs.

### ***The Current Study***

Given the need to empirically identify the facets of each of the sadism constructs and how they relate to one another, the current study is primarily concerned with improving our operationalization of trait sadism and BDSM practice. I aim to pilot a measure both quantifying and qualifying BDSM practice and use it to supplement a comparison of trait sadism in BDSM practitioners and non-practitioners. In the process of doing so I also expand upon existing work suggesting an alternative personality structure and novel subtype of trait sadism.

The current state of the literature promotes an exploratory design for these aims. The current study includes the first iteration of a checklist measuring BDSM, for which existing data directly relevant to item composition and content was severely limited. Another sadism variable measured here is relatively novel as well and therefore provides no predictive value yet. Aside from uncertainty surrounding these novel measures, however, this study is also predicated on the theory that our current conceptualization of sadism

sub-types may not parallel the latent variables we seek to study. When current questions about operationalization and trait structure are so basic, research effort may be better spent exploring those than questions about the predictive value of measures that may not approximate latent variables. The current study is therefore designed to probe the distinction between trait sadism and BDSM more generally in lieu of testing specific hypotheses.

## Chapter 2: Theoretical Background

This chapter reviews empirical and ethnographic findings under a functional lens, summarizing my theoretical arguments for the content structures and potential functions of trait sadism and BDSM. This background was the basis for the development of a novel BDSM measure introduced in the current study, and an unpublished trait sadism scale I previously developed and also employed here (Russell, 2019). Many evolutionary and personality psychologists have assessed hypotheses about the functional value of other dark personality traits, but complete hypotheses of that nature for trait sadism have yet to be proposed. The empirical study of BDSM has been near-exclusively descriptive. One hypothesis for its evolutionary etiology has been proposed, but it leaves many components of BDSM unaddressed, and has not been directly assessed with more empirical evidence since (Jozifkova & Flegr, 2006).

### **Trait Sadism: A Functional Hypothesis**

As reviewed in the prior chapter, everyday sadism has been defined behaviorally as a willingness to aggress or witness suffering for no benefit beyond enjoyment (e.g. Reidy et al., 2011; Buckels et al., 2013; Paulhus, 2014). Alternative conceptions and measures of this construct include facets representing dominance or callousness in addition to sadistic pleasure (i.e. aggression enjoyment). In following with the former characterization, many psychologists describe the type of aggression measured in the context of sadism as “unprovoked” (e.g. see Thomas & Egan, 2022 and citations from table 1). Characterizing sadistic aggression as unprovoked or defining it with an “inherent” enjoyment, however, should not suggest everyday sadism has



no function. Facets of the construct determined in the absence of compelling theory should not be assumed valid, even if empirically associated with subjectively similar constructs. It is plausible that either dominance or callousness, for example, are causally associated with sadism. Their inclusion in operationalizations of the trait is unwarranted and counter-productive, however, without compelling theoretical explanation or bottom-up empirical evidence. How and why the latent sadism variable is associated with the psychological correlates that have identified is largely unaddressed.

Regardless of whether trait sadism is an adaptation or not, its current manifestation has an undiscovered evolutionary etiology. Aggression is costly, and sadistic aggression is theoretically among the more costly forms. Sadism is characterized by violence or harm that is gratuitous and therefore energetically expensive. In addition to basic energetic and opportunity costs, harming or humiliating others in a way that is not socially sanctioned nor otherwise warranted theoretically puts sadists at higher risk of injury and diminished social support. If trait sadism is adaptive, it should be associated with fitness benefits that offset its risks and costs. These fitness benefits also have clinical ramifications as they may inform research about or become targets of developmental and treatment interventions. If trait sadism is a malfunctioning or environmentally mismatched manifestation of an evolved trait, the associated functional psychology can be identified. The sadism construct manifests in several distinct forms of psychology which seemingly vary on social, mating, and clinical outcomes. Some forms may be mismatched or malfunctioning while others have distinct etiology or represent adaptive manifestations.

Callousness and instrumental aggression make sense as components of evolved strategies promoting short term mating. Deceit and coercion can be viable interpersonal strategies, so psychological adaptations promoting aggression in service of those means should be expected (e.g. Thornhill & Thornhill, 1992; Janovic et al., 2003). The gratuitous aggression associated with trait sadism, however, is defined subjectively as going beyond that which can be explained as instrumental force or coercion fulfilling short term goals. In comparison to the type of aggression associated with dark triad traits, sadistic aggression is subjectively ineffectual. Theory and the little evidence available suggests that this characteristic of perceived pointlessness could confer distinct fitness benefits on those exhibiting sadistic aggression.

If the dark triad traits confer fitness benefits, it's unlikely they are limited to the direct instrumental consequences of aggression such as successful rape or corporate climbing. Acts of aggression promoted by these traits may also serve as social cues, conferring information about one's formidability or trait aggressiveness to others who can be expected to calibrate their behavior accordingly (e.g. Boone, 2008; Snyder et al., 2011; Zheng et al., 2022). I propose that trait sadism confers fitness benefits in a similar manner, by promoting gratuitous aggression as a social cue. Specifically, I hypothesize that gratuitous aggression connotes perceptions of beneficial characteristics, such as dominance and prestige, that increase a sadist's social status. Behaving aggressively in a context that seems non-instrumental to peers theoretically suggests various traits of social relevance—psychopathology, concern for norms, formidability, resource access, and physical health, for example. Not only does aggression that seems gratuitous suggest

superfluous resources and energy, but it may suggest a combination of callousness and interest in harming others that is particularly effective at harboring fear and subservience. The “indiscriminate” aggression associated with sadism violates social norms, but more importantly, it may promote perceived unpredictability.

A couple of the limited experimental studies examining trait sadism indicate that it is associated with less discriminate social punishment and that this effect may be mediated by decreased discernment in moral judgment (Tremoliere & Djeriouat, 2015; Pfattheicher & Schindler, 2015). In a public goods experiment, the harmful intent of an actor was considered less relevant by everyday sadists than non-sadists in deciding to enact social punishment. Additionally, there is preliminary evidence suggesting this effect is related to sadism’s distinct enjoyment of cruelty facet (Tremoliere & Djeriouat, 2015; Pfattheicher & Schindler, 2015). Everyday sadism is also associated with sexual competitiveness over and above the effects of the dark triad traits (e.g. Benemann et al., 2023; Russell et al., 2016; 2017; Koscielska et al., 2019). Our limited understanding of everyday sadism and known psychology of related constructs is consistent with the trait as part of an adaptively coordinated social strategy promoting perceptively gratuitous aggression.

### ***Antisocial and Prosocial Sadism***

Given that trait sadism could adaptively confer status through displays of unnecessary and enjoyable aggression, I considered whether all aggression of this nature would signal the same information to social partners. Prosocial aggression, for example, would seem to cue something different from forms of antisocial aggression. Those committing altruistic punishment

are behaving in accordance with the group's collective values and perceived as upholding them (e.g. Nelissen, 2008). This contrasts the theoretical perception of sadists as antisocial peers. Harming others for no purpose beyond personal enjoyment is antisocial, but harming others to benefit one's social group is prosocial and a desirable trait for social partners in many contexts.

Theoretically, aggression enjoyment may occur in prosocial and socially neutral contexts as it does antisocial. I suggest re-conceptualizing aggression enjoyment as a less specific psychological motivation that is potentially associated with multiple discrete functions (Russell, 2019; Semynyna & Honey, 2015). Moderated by context, gratuitous aggression could promote prosocial, antisocial, or socially neutral behavior, each cueing something different to peers. I further proposed that "everyday sadism" may be best operationalized as one possible form of antisocial sadism specifically cueing social dominance. As reviewed in the introduction to everyday sadism, some authors propose social dominance motivation to be an underlying facet of everyday sadism, and empirical evidence strongly suggests they are at least somehow related (e.g. Russell, 2019; O'Meara et al., 2011; Taylor, 2020).

I hypothesized that I could isolate a novel "prosocial sadism" construct, suggested to confer social status via prestige rather than dominance. Prestige is associated with reverence from one's social group due to the actor's demonstrated skills or abilities (Cheng et al., 2010). Prosocial sadists are expected to act aggressively in ways that benefit the social group, such as altruistic punishment, promoting the notion that this aggression is both within

their means and of particular interest to them. Altruistic punishment is desirable in social partners, and associated with positive reputational effects such as formidability, trustworthiness, and likeability (e.g. Barclay, 2006; Raihani & Bshary, 2015). Formidability is also associated with dominance, but the latter two are specifically characteristic of prestige (Gordon et al., 2014; Jordan et al., 2016). I previously developed two novel measures intended to capture prosocial sadism and complete a preliminary correlational probe of my trait sadism hypothesis. One prosocial sadism measure was directly comparable to an existing everyday sadism measure such that each item was modified to include a prosocial motivation for the same eventual action. Results consistently suggested prosocial and everyday sadism were similar but distinct constructs. Findings were also consistent with everyday sadism and prosocial sadism distinctly conferring dominance and prestige, respectively (Russell, 2019).

### **BDSM: A Functional Perspective**

Despite its prevalence, the sadism manifesting in BDSM contexts is subjectively costly compared to comparatively *vanilla* (i.e. non-BDSM, non-kinky, normative) sexual or mating practices. BDSM is a more involved practice requiring a greater time and often financial commitment. This increased commitment ranges from additional time spent discussing boundaries and consent with partners to a complete devotion of all of one's time and finances to "24/7 lifestyle" BDSM (e.g. Cascalheira, 2022; Newmahr, 2010). Also referred to as "total power exchange" (TPE), individuals who practice this spend all their time engaging in or preparing for power exchange dynamics. In a survey of practitioners, over half reported that they had

modified at least one room in their house for BDSM-related activities (Browne et al., 2007; Newmahr, 2010). Many specific practices require a somewhat scholarly dedication to the craft so that expertise, skill, and knowledge can prevent dangerous or fatal consequences. Ethnographic research indicates that practitioners believe this to be particularly true for those in dominant roles. Bondage experts, for example, describe the critical importance of learning procedures that prevent the compression of nerves and blood vessels, and quick release practices for removal of compression devices in emergencies (Moser & Kleinplatz, 2007).

Those who practice BDSM also experience the social costs of stigma, and seemingly to a greater degree than comparable marginalized identities or dedicated interests. 86% of a general population sample reported stigmatizing beliefs about BDSM practitioners in 2022, who appear to consistently experience greater prejudice than LGBTQ+ non-BDSM practitioners (e.g. Hansen-Brown & Jefferson, 2022; Boyd-Rogers & Maddox, 2022; Schuerwegen et al., 2022). Despite the pervasive stigma associated with BDSM practice, practitioners remain without sociolegal protections that many other marginalized groups retain. Importantly, research suggests that the costs of BDSM practice are subjectively associated with concern about the social stigma rather than the sexual desire itself: across ethnographic literature, self-reported shame is ascribed much more commonly to fear of social rejection than self-disgust about sexual desires. Even historically, practitioners tend toward positive subjective feelings about their practice of or interest in BDSM much more than negative ones (Moser & Levitt, 1987; Breslow et al., 1985).

These specific costs are also theoretically associated with the opportunity cost of committing to a specific lifestyle at the expense of seeking alternative social partners and mates. Given how involved the practice is, compatibility between practitioners and non-practitioners may be limited. Practitioners may be even more limited by the stigma and discrimination associated with their sexual behavior (e.g. Yost, 2010; Lawrence & Love-Crowell, 2008; Connolly, 2006).

### ***Proposed Structure***

I conducted a cross-disciplinary review of literature on BDSM to classify its heterogeneity. Due to the limited empirical findings, the construct structure proposed is based largely on functional theory and behavior described by ethnographers. I made estimations of what I believed most likely to be the universal components of the construct and identified components I considered more variable across practices. I then developed a checklist that measures each of these on a dimensional Likert scale so that behaviors and interests could be compared quantitatively. The measure is intended to capture a breadth of BDSM-related behaviors and desires on a level of analysis that relates to psychological motivations. This design lends itself to thoroughly operationalizing BDSM and testing functional research questions about it.

I reviewed not only instances of described BDSM, but behaviors and psychologies I argue fall under the same latent variable(s). This approach to categorizing BDSM psychology and behavior is intended to avoid top-down assumptions and accomplish a less biased operationalization. At least until the construct is well-operationalized, it seems useful to conceive of it on a

dimensional scale. Many elements of *vanilla* sex that are exhibited by large majorities of sexually active adults (e.g. hair pulling, spanking) can be said to exist on a continuum of severity or interest with more “extreme” forms of BDSM. Additionally, almost half of the population who do not consider themselves regular practitioners report engaging in BDSM at least occasionally, and others fantasize about more extreme elements of the practice such as rape play (e.g. Holvoet et al., 2018; Herbenick et al., 2021). Many facets of sexuality associated with BDSM are not exclusive to practitioners, and studying these aspects in more moderate forms may shed light on their function. Reciprocally, if BDSM-behaviors are exaggerated manifestations of behaviors seen across the population, practitioners may become tools for identifying elements of evolved sexual psychology in especially salient contexts.

I found pain exchange, power exchange, and consent to be the most overarching components of BDSM. Pain exchange, sometimes synonymized with “sadomasochism” in BDSM, is conceptually similar to the aggression enjoyment facet of trait sadism. Power exchange and consent each share conceptual elements of the paraphilic coercion facet of SSD and the dominant, social hierarchical motivation for everyday sadism (e.g. Plouffe et al., 2019; Longpre et al., 2020). Power exchange in the context of BDSM is subjectively similar to social hierarchy dynamics, and one of the few functional hypotheses for BDSM is predicated on this parallel psychology (Jozifkova & Flegr, 2006). No compelling empirical evidence supports this hypothesis yet. Submissives, for instance, are not typically characterized as holding less subjective power than dominants (e.g. Moser & Kleinplatz, 2007).



It is possible this power exchange component of BDSM differs psychologically from its analogous construct in trait sadism. If so, it is also plausible that consent would be a moderating factor. On a certain level of analysis, DMTS (dominant, master, top, sadist) and SSBM (submissive, slave, bottom, masochist) oriented pairs are not exchanging any *true* power because of the way practitioners consent. Descriptions of BDSM overwhelmingly include consent as the most ubiquitous component (e.g. Pitagora, 2013). The community engages deeply with the concept, debating best practices for upholding ongoing consent during scenes and continuously evaluating new models for its practice (Williams, 2006). All of these models share the value of harm reduction and ongoing, informed consent continuously through scenes. Those perceived as not earnestly focused on consent within their practice are reported as swiftly and unanimously excluded from the community (Barker et al., 2017; Gross, 2006; Pitagora, 2013; Williams, 2002).

Regardless of whether consent moderates the psychology of coercion or social dominance in the context of BDSM, this power exchange may share psychophysiology with trait sadism. A common practice in BDSM scenes is “consensual non-consent” (CNC), in which partners enact power exchange dynamics either as short-term roleplay or a component of 24/7 lifestyle dynamics. Psychological differences between (true) coercion and consensual non-consent have not been quantified yet.

Pain exchange is often identified as a critical or overarching component of BDSM. It is not described as primary or necessary motivation for practice as consistently, however, as power exchange or consent are. Theoretically, pain exchange may be motivated by and subsumed within power exchange

on a psychological level of analysis, but the opposite relationship is non-sensical. Many practitioners and ethnographers explicitly distinguish between pain and power exchange, but there is no empirical evidence defining their relationships to one another on any psychological level of analysis (Lindemann, 2012; Newmahr, 2010).

The role of pain exchange in BDSM practice varies on several metrics. Subjective experiences of pain from practitioners range from its “transformation” into an appetitive stimulus to use of its aversiveness as a tool for increasing the salience of pleasure and inciting feelings of achievement. One of the most commonly cited motivations for engaging in pain exchange not clearly related to power exchange on some level is “*transformed pain*”. Practitioners describe transformed pain as physiologically experiencing a conventionally painful stimulus or event as pleasurable. Many specify a subjective distinction between transformed pain (i.e. *pain as pleasure*, sometimes) and other common experiences of painful stimuli as appetitive, such as *pain as release* (e.g. Dunkley et al., 2020; Newmahr, 2010). The objective psychology is elusive, however, due to the limited empirical research conducted on participants during active practice (e.g. Dunkley et al., 2020). The experience of transformed pain during BDSM scenes is not limited to those in SSBM roles. Many dominants report transformed pain or other types of altered consciousness more typical of DMTS roles (e.g. see descriptions of “top space”). If pain exchange motivates BDSM practice outside of the context of power exchange, it may often be through transformed pain or other altered states of consciousness. These and other potentially related motivators, such

as spirituality, are therefore measured here for preliminary evidence of or against their importance and relation to other practice components.

I found no evidence of bondage and restraint clearly manifesting outside of a power or pain exchange context. I suggest that it is likely a lower-order component of BDSM than consent, power exchange, and possibly pain exchange. Though it seems to be often or always motivated by an underlying exchange of power or pain, many subjectively describe it as a fundamental to BDSM. It is one of only three named practice components, yet I found no explanation for its inclusion that was logically consistent with the corresponding rationale for pain exchange (i.e. sadomasochism) or power exchange (i.e. dominance and submission). Determining the relationship between bondage and both proximate motivators such as transformed pain and overarching components such as power exchange will be an informative use of the novel measure introduced here.

Sexuality is conceptualized as a defining feature of BDSM in popular culture and is described as nearly ubiquitous in scholarly literature as well. There are many compelling recorded instances of BDSM described as asexual or non-sexual, however, typically by ethnographers or practitioners. I found little commentary directly comparing sexual and asexual practice, but several described proximate motivations for asexual practice. Asexual practitioners have been specifically studied, but I do not estimate that they account for all or even most of non-sexual BDSM practice. Several non-sexual motivations for BDSM, such as spirituality and personal exploration, are reported among practitioners who don't identify as asexual (e.g. Greenberg, 2019; Cascalheira, 2021; Sprott, 2020). It is unclear if interest in

sexual and asexual practice are separate constructs or two ends of the same continuum, so in the current study they're conceptualized and measured separately to explore the relationship in a bottom-up manner.

I also categorized the relatively common but variable components of BDSM practice on a level of analysis that psychologists can meaningfully compare to overarching components. All reported motivations on an emotional or cognitive level of analysis could be categorized under humiliation, fear, disgust, (sexual) pleasure, comfort, or altered states of consciousness (including transformed pain). The current sample is too small to test research questions about the hierarchical relationship between these psychological constructs and overarching BDSM components. These psychological variables are still discussed and measured in the current study, however, to compare with other BDSM components and pilot an exhaustive checklist.

### **Current Aims**

The aims of the current study are reviewed in detail below. They focus on improving operationalization of several sadism constructs in service of improving the validity of related research across disciplines. The first aim is to compare the two hypothesized types of trait sadism across BDSM practitioners and non-practitioners. The second is piloting a checklist—the BDSM Identities and Behaviors (BIB) checklist—intended to exhaustively quantify and qualify BDSM practice.

### ***Comparing Trait Sadism in BDSM Practitioners and Non-Practitioners***

The current study measures prosocial and everyday sadism separately in a sample of experienced BDSM practitioners and non-practitioners. It is

correlational and fundamentally exploratory, so I make no strong predictions about the difference between practitioner and control samples on everyday sadism. The limited empirical evidence that touches on this relationship suggests no relationship, however, between BDSM-type sadomasochism and everyday sadism. Considering that DMTS and SSBM oriented practitioners may theoretically differ on dominance-related traits, I predict any group difference identified is likely to be driven by increased everyday sadism among those strongly endorsing DMTS roles.

Illustrating the necessity of exploratory studies in this field is the consideration that everyday sadism findings may be complicated by poor measure generalizability. Many items depicting everyday sadism deliberately omit a specified motivation for aggression, making the presence or absence of consent ambiguous. BDSM practitioners may therefore respond affirmatively to some items even when their corresponding behavior does not fall under the latent "trait sadism" variable, artificially inflating those item scores.

I refrain from predicting anything about the relationship between BDSM experience and prosocial sadism. Given no empirical evidence in either direction, logical arguments can be made for several expected relationships between these two variables. The current study explores the possibility that prior research showing no relationship between everyday sadism and BDSM experience does replicate, while BDSM experience still relates to a different, prosocial type of trait sadism. Artificially inflated prosocial sadism scores among practitioners are possible, however, for the same reason as inflated everyday sadism scores.

I also compare the three dark triad traits—subclinical psychopathy, narcissism, and Machiavellianism—across practitioners and non-practitioners. These comparisons improve interpretation of the trait sadism findings by contextualizing them within a more robust literature.

### ***Piloting a Measure that Qualifies and Quantifies BDSM***

This practitioner sample serves as an opportunity for piloting the BDSM Identities and Behaviors (BIB) Checklist. I designed the BIB checklist to exhaustively characterize the heterogeneous psychological elements of BDSM identities and behaviors. It focuses also on operationalizing key components of BDSM in a manner that is easily replicable across studies. I intend for this measure to promote more objective and meaningful study of BDSM. Secondly, I've designed it to probe psychological constructs that are easily contextualized within existing literatures on the evolutionary etiology of aggression and antisocial personalities. Rather than specific kinks, this measure captures conserved psychology and associated behavior so it can be used in future studies to probe functional questions about BDSM facets. In the current study I assess BIB checklist validity and compare these findings to the conclusions drawn from my interdisciplinary BDSM review.

With these specific aims I intend to inform future research operationalizing and eventually discerning the function of sadism. Ultimately, an understanding of the evolutionary etiology of the construct will afford meaning to existing sadism research conducted by personality psychologists, sociologists, and ethnographers.

### Chapter 3: Methodology

#### Sample

Two groups of participants were recruited separately for this study. The general population group—those individuals that did not identify as BDSM practitioners—were recruited from Amazon Mechanical Turk (MTurk) between January 27<sup>th</sup> and February 14<sup>th</sup>, 2022. Inclusion criteria for this group were US residence, fluency in English, age of at least 18 years, and an MTurk approval rating equal to or greater than 95%. The approval rating criterion was included to prevent an overwhelming human intelligence task (HIT) response from non-human participants, without biasing the sample toward particularly conscientious responders. BDSM practitioners were recruited around the same time as the non-practitioner group via online advertising (on Twitter) and word of “mouth” (i.e. keyboard) via email, Facebook, and other social networking websites. Inclusion criteria for this group were the same, with the addition of their participation in a minimum of 20 cumulative hours of BDSM throughout their lifetimes thus far.

I aimed to recruit a total of 50 participants per sample for a total of at least 100 participants. None of the submissions in the BDSM group were excluded for failure to meet inclusion criteria, insufficient responding, or inattentive responding, but a total of 80 MTurk participants were recruited for a final sample of only 49 after excluding for the aforementioned reasons. A total of 58 participants in the BDSM sample met inclusion criteria for a total final sample size of 107.

The final MTurk sample ( $n=49$ ) is 57.1% male, 65.3% heterosexual, 8.2% homosexual, and 22.4% bisexual or pansexual. Participant ages ranged

from 21 to 66 with a mean of 38 years. Racial demographics were 93.9% white, the remaining proportion of non-white identifying participants representing only three respondents, all of whom identified as black. The final BDSM practitioner sample ( $n=58$ ) is 34.5% male, and 56.9% female, with the remaining proportion of respondents identifying as non-binary. Only 31% of respondents in this sample identified as heterosexual, while 10.3% identified as homosexual, and bisexual and pansexuals represented the largest response category at 48.3%. Participant ages ranged from 19 to 54 with a mean of 33 years. Racial demographics were again overwhelmingly white, with 87.9% of respondents identifying as such. The remaining 5 non-white respondents those who indicated a race identified as black (2), brown (1), Asian (1), and mixed (1).

This overrepresentation of non-heterosexual orientations among practitioners and the consequential difference in sexual orientations across the two samples is unsurprising. BDSM practitioner sample mirrors existing findings indicating on over-representation of minority sexual orientations among practitioners while the MTurk sample more closely approximates national proportions. The MTurk sample is still disproportionately white and bisexual/pansexual identifying, which I estimate is a result of bias in this small sample.

### **Procedure**

Control participants were administered a questionnaire of 3 scales with 59 total items hosted on Google Forms. They gained access to the Google Form by accepting our MTurk HIT and following a hyperlink. Before beginning the demographic portion of the questionnaire, potential participants read our



consent waiver and responded to questions confirming they met inclusion criteria. They were asked to confirm their eligibility under our inclusion criteria here, but aside from English fluency, potential participants were automatically filtered for eligibility by MTurk. Fifty total HITs were released in groups of nine at various times of day to avoid temporal bias. After releasing all 50 HITs, rejected HITs (i.e. excluded submissions) were re-released to new participants. Participants who submitted approved HITs were then compensated \$1 to their MTurk accounts. Upon completion of data collection for this sample, all data were downloaded from Google Forms and hosted on IBM SPSS version 28.

The same questionnaire, with the addition of a 41-item BIB checklist, was hosted on Google Forms and administered to BDSM practitioner participants through online advertisements (i.e. Listserve emails, Facebook, and Twitter posts) and online word of “mouth”. In addition to the BIB checklist, this version of the questionnaire also included one additional question at the end of the survey. This group of participants was compensated indirectly with a donation of \$2/participant (for a total goal of up to \$100 for our desired sample of 50 participants) to a kink-positive organization of their collective choosing. They were therefore asked to select their preference of organization or write-in a suggestion as the last item of their questionnaire. The monetary “compensation” for these participants is double that of the MTurk participants due to the additional time commitment required of this version of the questionnaire. Upon completion of data collection for this group, all data were again downloaded from Google Forms and hosted on IBM SPSS version 28.

## **Measures**

See Appendix A for a copy of all materials used in the current study.

### ***Short Sadistic Impulse Scale (SSIS)***

This ten-item scale is one of the most commonly used self-report measures of everyday sadism (O'Meara et al., 2011). Items each describe a desire to engage in some type of gratuitous aggression, including items that touch on physical, verbal, and sexual forms. Examples include "I would enjoy hurting someone physically, sexually, or emotionally" and "I have hurt people because I could". This scale has often been administered with a binary yes/no response option, but I administered it with a 5-item Likert scale ranging from "strongly disagree" to "strongly agree" for a more direct replication of its administration in my prior study on trait sadism. 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 scoring for reverse-coded item 4.

### ***Prosocial Aggression Motivation Scale (PAMS)***

This is a ten-item scale intended to measure "prosocial sadism", a construct proposed and tested in my prior study on trait sadism in the general population (Russell, 2019). Each item corresponds to a similar SSIS item such that it depicts the same aggressive behavior but includes an additional prosocial motivation that was absent from the original SSIS item. The item "I have hurt people to punish them for their wrongdoings", for example, corresponds to the SSIS item "I have hurt people for my own enjoyment" (see Appendix A). This scale was administered with the same Likert scale as the SSIS and item scores were again calculated the same.

***Short Dark Triad (SD3)***

The Short Dark Triad (SD3) is a 27-item composite scale measuring the Dark Triad of personality (Jones & Paulhus, 2014). Nine items measure subclinical narcissism, nine measure Machiavellianism, and the remaining nine measure subclinical psychopathy. These scales were included to allow for comparison of trait sadism and dark triad traits, centering the current study within the context of existing personality literature. The items of this scale had response options on the same Likert scale as the sadism scales. Subclinical narcissism, Machiavellianism, and psychopathy scores were calculated as means of their respective individual items.

***BDSM Identities and Behaviors (BIB) Checklist***

This novel 41-item checklist was designed and administered here to quantify the heterogeneity of BDSM-related identities and behavior. Items are constructed to collectively capture a breadth of components describing the psychology of the BDSM construct. They're written with a degree of specificity allowing for researchers to both capture all facets of the construct and test its causal psychology in future studies. Examples of checklist items include, "In the context of BDSM roles, I identify as a bottom", "My BDSM practice involves physical humiliation or degradation", and "I practice BDSM in a community setting". Respondents were asked to rank on a 5-item Likert scale how frequently they engage in the behavior or identify with the role described, with 1 being "never or almost never" and 5 being "always or almost always".

The identities, behaviors and desires described by the checklist items were selected as a result of a cross-disciplinary review covering scholarly English language literature on behavior described as BDSM or otherwise

sadistic, and some literature appearing to possibly describe behavior belonging within the same latent construct. This review included both scholarly and layperson's accounts of BDSM experience. I categorized components of BDSM that I hypothesized to be universal and then identified those that re-occurred in practice descriptions more variably. Items depicting pain exchange and power exchange were included along with consent (and, for comparison, CNC) as components I expected to find most overarching. Pain and power exchange dynamics were described with a pair of items each so that their interaction with SSBM and DMTS dynamics could also be assessed in a preliminary fashion. Bondage and sexuality items were included with the expectation that they would be strongly endorsed compared to most other items if the BIB checklist has face validity. Items probing CNC and non-sexual practice are included separately from consent and sexuality to explore their relationships with theoretically associated constructs and items that may or may not exist on their same axis.

All potential proximate motivators of power exchange, pain exchange, consent, or bondage discussed in the first chapter were included as checklist items, as were others beyond the scope of the current study. Specific interests that seemed particularly salient to practitioners, such as rape play, were also included despite being theoretically subsumed by other items. There are many thousands of kinks reported across these literatures, but qualifying BDSM to the precision of all specific kink content would not be practically possible, nor would it be efficient for studying function. Generalizable psychological motivators such as social hierarchy are easier to interpret for these purposes, for example, than specific actions such as

“sounding” or law enforcement roleplay. The intention of the chosen checklist items is to cover a breadth of kinks that can be captured under common psychological motivators likely to be relevant to construct etiology. They’re designed with a degree of detail intending to allow researchers to probe functional questions while remaining salient to practitioner respondents. An open response option asking participants to list any important or recurring elements of their practice that weren’t captured by any of the given items was the final checklist item. Responses to this item were considered in assessing the checklist for future iterations.

### **Statistical Analyses**

The statistical analyses reported here were conducted on SPSS version 28. For direct comparison to the results of my original study comparing the SSIS to the PAMS, the distribution of each of these variables in each group (i.e. control and, separately, BDSM practitioners) were plotted, as were the bivariate relationships between these two variables. Comparisons of the means of relevant demographic variables age, gender, and sexual orientation were then made to determine which covariates to include in the primary analyses comparing trait sadism and dark triad traits across groups.

To compare the practitioner and non-practitioner groups, I included descriptive statistics along with regressions comparing on SSIS scores, PAMS scores, and each of the three SD3 sub-facets, separately. The BIB checklist items were analyzed descriptively alongside a correlation matrix and various exploratory regressions to evaluate preliminary checklist validity and probe the relationships between various traits and item pairs.

## Chapter 4: Results

### Preliminary Analyses

Following the elimination of ineligible participants, the final MTurk data set was missing less than .0021% of cases, and the practitioner sample had no missing values on any of the variables analyzed in the current study. Given the very limited frequency of missing cases in the MTurk sample, I had them deleted pairwise. Outlier analyses were not performed for the purpose of finding objective criteria for eliminating data points due to the exploratory intention of the study and the limited and specialized nature of the sample. I reasoned that no legitimate data points can be said to have undue influence on these results as the practitioner sample is expected to be highly heterogeneous, making potential “outliers” both interesting and potentially relevant outside of the current study. Additionally, no hypotheses are tested, nor conclusions drawn, so extreme cases are both interesting and unlikely to cause misinterpretation of evidence.

### *Internal Consistency Reliability*

The Cronbach’s alpha ( $\alpha$ ) values of each scale measured in this study are summarized in table 3. All scales in each sample—except the psychopathy subscale of the SD3 (SD3-P) in the BDSM sample—had coefficients within the conventionally acceptable range (i.e. at least  $\alpha=.60$ ). Most, however, had higher than acceptable internal consistency, ranging between  $\alpha=.84$  and  $.94$ , with the notable exception being subclinical narcissism (SD3-N) in the BDSM sample ( $\alpha=.69$ ). The removal of item 2 of

the SD3-P alone brings alpha for the practitioner sample within acceptable range ( $\alpha=.65$ ).

**Table 3**

*Internal Consistency Reliabilities for Each Sample*

Scale	$\alpha$	
	BDSM <sup>a</sup>	MTurk <sup>b</sup>
Everyday Sadism	.88	.94
Prosocial Sadism	.87	.92
Short Dark Triad	.87	.94
Machiavellianism	.89	.88
Narcissism	.69	.84
Psychopathy	.50 <sup>c</sup>	.87

<sup>a</sup>BDSM references the BDSM practitioner group; <sup>b</sup>MTurk references the non-practitioner (i.e. Amazon MTurk) group; <sup>c</sup>Coefficient was calculated prior to eliminating item 2 from the SD3 psychopathy subscale. Subsequent analyses are conducted on the modified 8-item subscale with  $\alpha=.65$ .

***Sample Descriptions***

I compared mean differences in the BDSM practitioner and MTurk samples on demographic variables and present the corresponding descriptive statistics in tables 4 and 5 below. The demographic variables assessed for group differences were either of interest because they had been assessed in existing studies on similar populations or because they were potential covariates in my primary analyses. Potential covariates exhibiting significant group differences were then included in analyses comparing the dark triad and sadism traits across samples to match groups as closely as possible. Age, heterosexuality, and bisexuality were the only demographic characteristics found to have significant group differences.

**Table 4***Descriptive Statistics of Select Sample Characteristics*

Variable	Proportion or Mean		SD		Min, Max	
	BDSM	MTurk	BDSM	MTurk	BDSM	MTurk
Age (years)	33.26	38.37	10.03	10.48	19, 54	21, 66
Male	34.5%	57.1%				
Heterosexuality <sup>a</sup>	31.0%	65.3%				
Bisexuality <sup>a</sup>	48.3%	22.4%				
Homosexuality <sup>a</sup>	10.3%	8.2%				
Latinx <sup>b</sup>	17.2%	22.4%				
White <sup>c</sup>	87.9%	93.9%				
Education <sup>d</sup>	3.58	4.04	1.36	0.93	1, 6	2, 5

<sup>a</sup>These refer to dummy coded variables capturing heterosexuality, bisexuality, and homosexuality, respectively; <sup>b</sup>Ethnicity; <sup>c</sup>Race. Too few observations of race with values other than “white” were collected to make other comparisons with this variable; <sup>d</sup>Education refers to an ordinal variable representing one’s highest completed level of education, coded such that 1=Elementary school, 2=High school or GED, 3=Associate degree, 4=Bachelor’s degree, 5=Master’s degree, and 6=Professional doctorate degree (e.g. MD, PsyD, JD) or PhD.



**Table 5***Group Differences for Select Demographic Characteristics*

Variable	Test Statistic	<i>p</i>	95% CI
Age	$t = -2.56$	.012*	[1.169, 9.048]
Male	$\chi^2 = 2.91$	.088	
Heterosexuality	$\chi^2 = 12.53$	<.001*	
Bisexuality	$\chi^2 = 7.65$	.006*	
Latinx	$\chi^2 = .46$	.50	
White <sup>a</sup>	$\chi^2 = 1.11$	.29	
Education	$t = 2.06$	.042*	[.0166, .9071]

<sup>a</sup>Too few observations of race with values other than white were collected to make corresponding comparisons.

\* $p < .05$

### **Personality Comparisons in Practitioners and Non-Practitioners**

#### ***Univariate and Multivariate Distributions***

**Dark Triad.** The three dark triad traits were subjectively normally distributed in both the practitioner and MTurk samples, for the most part. The distribution of subclinical psychopathy and narcissism scores in the MTurk sample appeared positively kurtotic, though not severely, as did the Machiavellianism (SD3-M) scores in the practitioner sample. Statistical tests of normality confirm these visual observations, indicating that subclinical narcissism (SD3-N) and psychopathy (SD3-P) within the MTurk sample and Machiavellianism within the practitioner sample were close to or slightly outside standards for normality, with negative kurtosis values (Table B1, Appendix B). Full kurtosis and skewness statistics for all personality variable distributions in this study are found in Appendix B.

**Trait Sadism.** Distributions of the SSIS and PAMS in practitioners and non-practitioners were compared to each other and to their corresponding distributions from the study piloting the PAMS (figures 1 and 2). Figure 3 graphs and compares the linear relationship between the SSIS and PAMS in each of the three aforementioned samples. It's expected that the sampling noise is particularly predominant in samples as small as the current ones. Across corresponding univariate and multivariate distributions of everyday sadism and prosocial sadism, samples were subjectively noisy but had identifiable similarities. The current and prior MTurk distributions were particularly similar, with the practitioner sample from the current study deviating most from the others.

The distribution of everyday sadism from both MTurk samples appeared possibly bimodal, with increased response frequency at both extremes (figure 1). Comparatively, the current practitioner sample exhibited a greater frequency of mid-range responses, which may be representative of a more normally distributed trait among practitioners than non-practitioners. Alternatively, everyday sadism may be distributed bimodally among practitioners in a manner more obscured by issues of scale generalizability in this population.

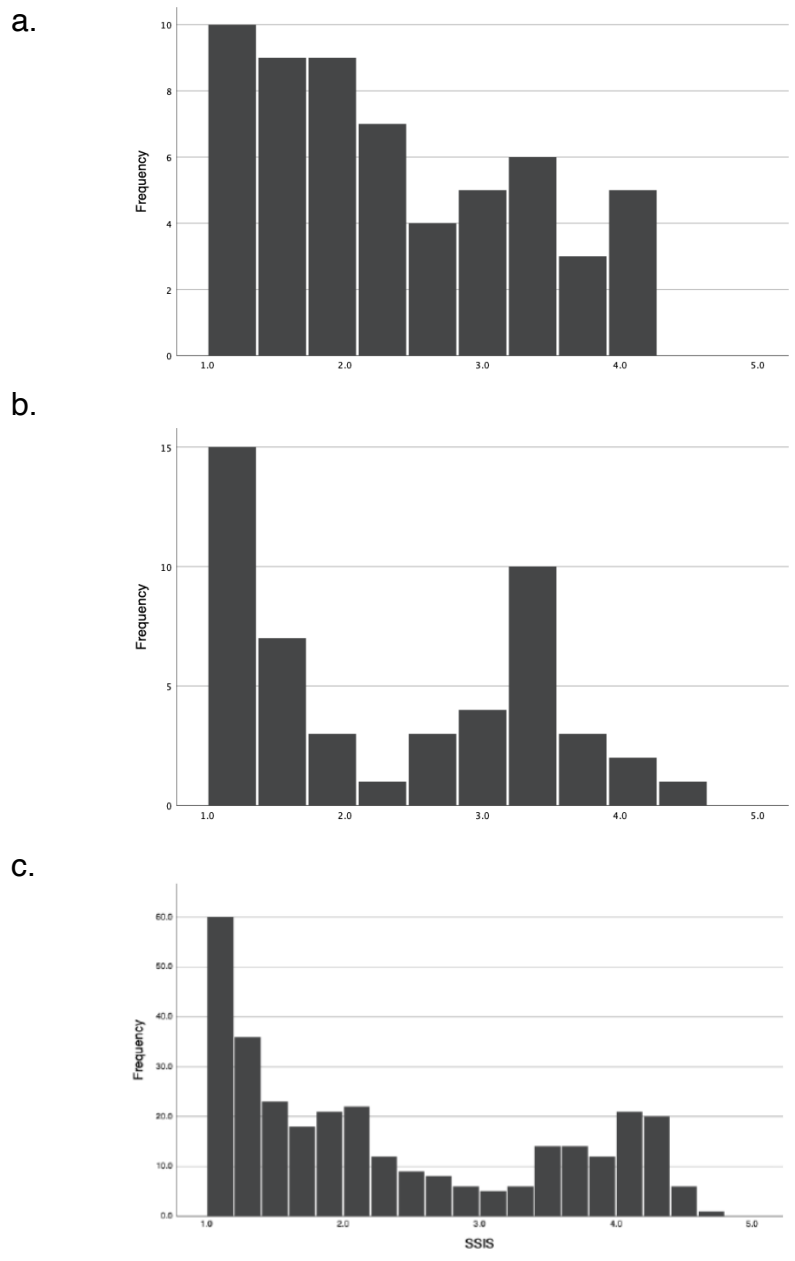
The prosocial sadism distribution in the prior MTurk sample was approximately uniform while the current distributions of this variable appear comparatively normal, or possibly bimodal in the same pattern as the SSIS (figure 2). Tests of skewness and kurtosis indicated that the practitioner sample's prosocial sadism distribution was within conventions for normality, though approaching a slight positive skew (Table B1; B2). Prosocial sadism in

the current MTurk sample was distributed slightly flatter than normal with a negative kurtosis and skewness within conventions for normality.

Similar to the MTurk sample from the prior study, the current non-practitioner sample had a cluster of individuals who score low on everyday sadism and relatively high on prosocial sadism, but *not* a cluster of individuals exhibiting the opposing pattern. Prosocial and everyday sadism are strongly and significantly correlated with one another in both current practitioner and MTurk samples, respectively ( $r=.70$ ,  $r=.84$ ).

**Figure 1**

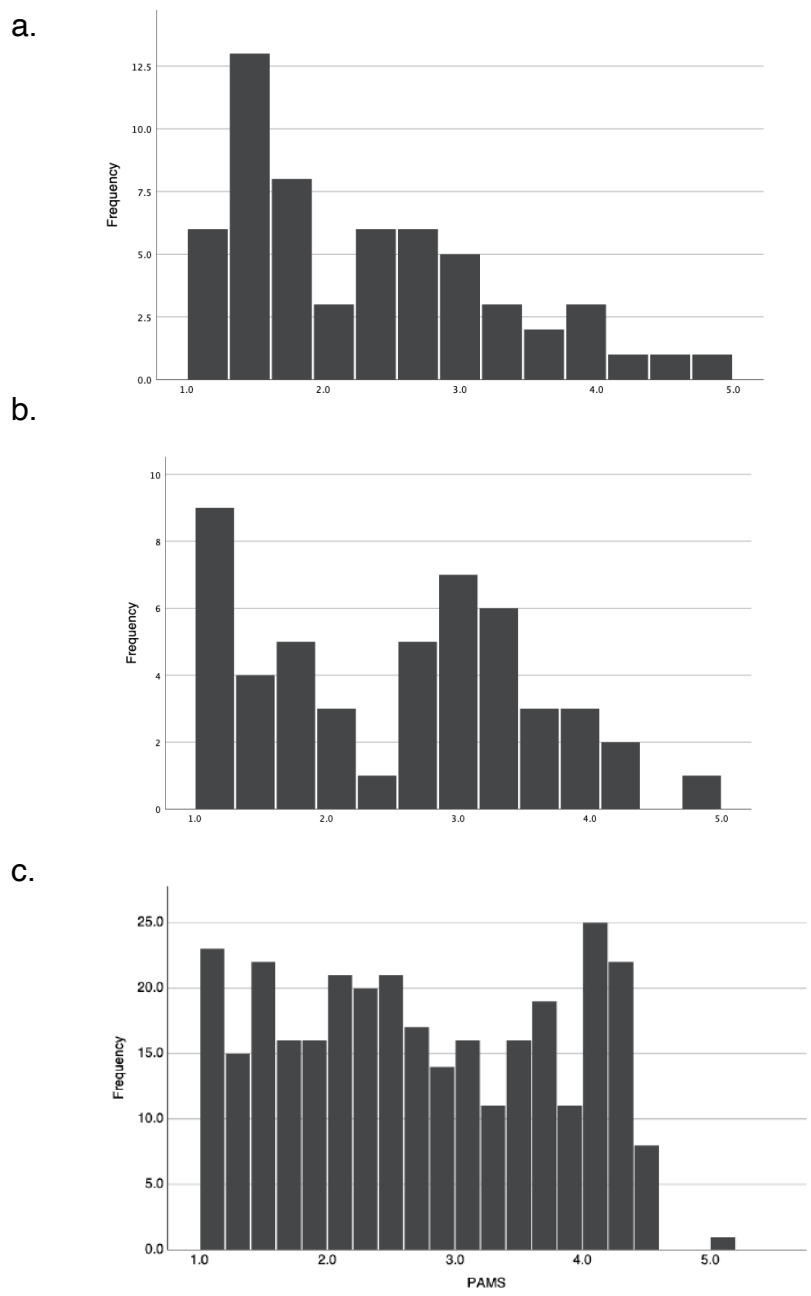
*Everyday Sadism Distributions Across Samples*



*Note.* Comparison of SSIS distributions in a) the BDSM practitioner sample, b) the current MTurk sample, and c) the MTurk sample ( $n=314$ ) collected in 2018.

**Figure 2**

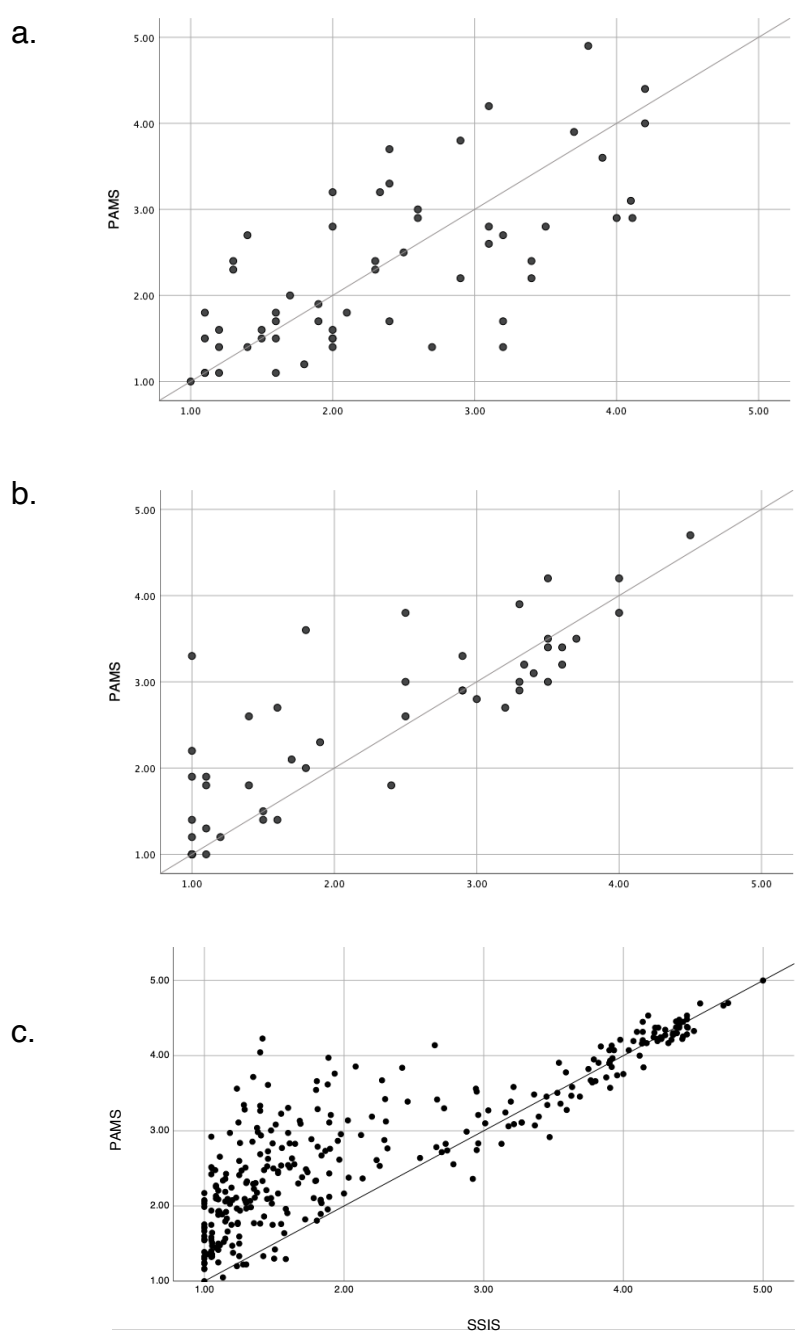
*Prosocial Sadism Distributions Across Samples*



*Note.* Comparison of PAMS distributions in a) the BDSM practitioner sample, b) the current MTurk sample, and c) the MTurk sample ( $n=314$ ) collected in 2018.

**Figure 3**

*Scatterplots of Everyday and Prosocial Sadism Across Samples*



*Note.* Comparison of scatter plots of SSIS (X-axis) and PAMS (Y-axis) scores with a diagonal reference line in a) the BDSM practitioner sample, b) the current MTurk sample, and c) the MTurk sample ( $n=314$ ) collected in 2018.

### ***Inferential Comparisons***

Regression analyses of group membership (i.e. BDSM practitioner vs. MTurk) on each trait sadism and dark triad trait were conducted. The results of these analyses are described below and summarized in table 6. Bivariate correlations between each of the dark personality traits and select BIB checklist items support interpretation of the findings in table 6 so a correlation matrix is also included below (table 7).

**Table 6**

*Group Differences in Sadism and DT Traits*

IV	DV	<i>B</i>	<i>SE</i>	<i>p</i>
Everyday sadism	Group <sup>a</sup>	-.16	.22	.48
“Prosocial sadism”	.	-.50	.24	.036*
Machiavellianism	.	-.67	.26	.011*
Narcissism	.	-.65	.30	.031*
Psychopathy	.	-1.01	.29	<.001*

*Note.* Age and sexual orientation were included as independent variables in each regression along with the relevant personality variable to control for their effects.

<sup>a</sup>Group is dummy coded such that BDSM practitioners score 1 and MTurk participants score 0.

\* $p < .05$

**Table 7***Correlation Matrix of Dark Personality Traits and Select BIB Items*

Item	1	2	3	4	5	6	7	8
1. Submissive	–							
2. Dominant	-.85*	–						
3. Gain Power	-.79*	.78*	–					
4. SSIS	-.39*	.42*	.53*	–				
5. PAMS	-.27*	.36*	.48*	.70*	–			
6. SD3-P	-.12	.29*	.44*	.64*	.76*	–		
7. SD3-N	-.08	.19	.32*	.44*	.43*	.46*	–	
8. Consent	-.10	.13	.09	.09	.04	.06	.07	–
9. CNC	-.04	.13	.02	.18	.26*	.10	-.10	-.12

\* $p < .05$ 

Regression analyses indicated no significant relationship between BDSM practice and everyday sadism. The BDSM practitioner sample did, however, have significantly lower prosocial sadism, subclinical narcissism, Machiavellianism, and psychopathy scores than the MTurk sample. To further probe these findings, I calculated bivariate correlations of the PAMS, SD3-N, SD3-P, and SD3-M and each BIB behavioral item to identify any potentially motivating facets of BDSM that may be partially driving the negative relationships. I found very few negative correlations, however: psychopathy and non-sexual practice ( $r = -.28, p = .034$ ), Machiavellianism and non-sexual practice ( $r = -.34, p = .009$ ), and Machiavellianism and TPE ( $r = -.27, p = .043$ ).

I then performed a series of regression analyses and bivariate correlations differentiating the effects of each personality trait on opposing BIB identity role items (see table 8). These were intended to assess the possibility that the negative associations between BDSM practice and various



personality traits are artefacts of the over-representation of SSBM oriented practitioners (or the under-representation of DMTS practitioners) in the current sample. The personality traits all tended to have opposing relationships with SSBM and DMTS role items, but their positive relationships with DMTS roles were consistently stronger than their corresponding negative relationships with SSBM roles. Additionally, when regressed on corresponding DMTS and SSBM item pairs, PAMS and subclinical psychopathy tended to be associated with DMTS roles and not the corresponding SSBM role (table 8).

**Table 8**

*Personality Differences Across Reciprocal BDSM Roles*

IVs	DV	$\beta$	t	p	95% CI
Top	Prosocial Sadism	.36	2.24	.029*	[.026, .47]
Bottom		.07	.44	.66	[-.16, .25]
Sadist	Psychopathy	.31	2.43	.019*	[.03, .27]
Masochist		.054	.42	.68	[-.09, .13]

*Note.* These analyses are select examples of a set of regressions conducted to further probe the findings depicted in table 6. Three regressions were each conducted with PAMS, psychopathy, narcissism, and Machiavellianism as the dependent variables. Each personality variable was regressed on top and bottom, sadist and masochist, and dominant and submissive roles, respectively. These identities were selected because they were the most commonly endorsed. No significant relationships were identified with Machiavellianism or narcissism as dependent variables.

Prosocial sadism and psychopathy exhibited the same results pattern when regressed on sadism and masochism, and dominance and submission, respectively.

\* $p < .05$

## **BDSM Identities and Behaviors (BIB) Checklist**

Subjective analyses of the checklist items, both as individual distributions and in comparison to each other, support the proposition that the BIB captures a breadth of BDSM-related identities and behaviors.

### ***Validity***

**Coherent Responding.** To evaluate whether checklist items are accurately understood and responded to by participants, I conducted a series of bivariate correlations between select item pairs. Given that certain item pairs represent mutually exclusive behavior, significant positive correlations between these items warrant a deeper examination. As would be expected of coherent responses, there was a negative correlation between items measuring how often one's practice is sexual, for example, and how often one's practice is non-sexual, as well as between how often one's practice was community centered vs. private ( $r = -.35, p < .05$ ;  $r = -.48, p < .05$ ). Rather than having mutually exclusive meaning, some item pairs are related such that one is logically subsumed by the other. In lieu of a positive correlation between these, a significant negative correlation between items of this nature would indicate incoherent responding. The item measuring frequency of engagement in rape play is one such item, for example: it should be positively correlated with the item measuring frequency of practicing CNC, because rape play is a specific type of CNC. Indeed, the bivariate correlation between these items ( $r = .71, p < .05$ ) suggests no issue with coherent responding for this pair, nor any of the other potentially redundant item pairs.

**Item Redundancy.** The correlation matrix presented below includes items pairs or groups evaluated for redundancy (table 9). In addition to those,

identity role items were also examined for redundancy (table 10). None of the identity and/or behavior item pairs correlations above .84., suggesting none were so redundant they should necessarily be eliminated before the next iteration of the checklist. Verbal and physical humiliation were highly correlated ( $r=.84$ ,  $p<.05$ ), however, and the corresponding implications for the subsequent BIB iteration are discussed in chapter 5.

**Table 9***Correlation Matrix of Potentially Redundant BIB Items*

Item	1	2	3	4	5	6	7	8	9	10
1. CNC	–									
2. TPE	-.09	–								
3. Rape	.71*	.05	–							
4. Body Mod <sup>a</sup>	-.21	.36*	.06	–						
5. Vis <sup>b</sup>	.03	.23	.05	.39*	–					
6. Com <sup>c</sup>	.01	.15	-.04	.11	.40*	–				
7. Priv <sup>d</sup>	.11	-.25	.08	-.11	-.21	.35*	–			
8. Sex	.16	-.16	.16	-.12	-.38*	.48*	.14	–		
9. Non-sex	-.22	.34*	-.09	.33*	.28*	.13	.00	-.48*	–	
10. H-P <sup>e</sup>	.31*	.15	.23	.14	.21	.00	.05	.24	-.06	–
11. H-V <sup>f</sup>	.29*	.09	.28*	.15	.14	-.06	.06	.10	.11	.84*

<sup>a</sup>Body modification; <sup>b</sup>visible injury; <sup>c</sup>community practice; <sup>d</sup>private practice;

<sup>e</sup>physical humiliation; <sup>f</sup>verbal humiliation

\* $p < .05$

**Table 10***Correlation Matrix of Select BIB Roles*

Item	1	2	3	4	5	6	7	8	9	10
1. top	–									
2. bott <sup>a</sup>	-.62*	–								
3. sub <sup>b</sup>	-.72*	.82*	–							
4. dom <sup>c</sup>	.73*	-.75*	-.85*	–						
5. sad <sup>d</sup>	.50*	-.33*	-.53*	.59*	–					
6. mas <sup>e</sup>	-.47*	.65*	.60*	-.56*	-.11	–				
7. BT <sup>f</sup>	.65*	-.50*	-.59*	.65*	.43*	–				
8. brat	-.27*	.33*	.41*	-.25	-.06	.35*	–			
9. mst <sup>g</sup>	.52*	-.68*	-.71*	.78*	.38*	–				
10. slv <sup>h</sup>	-.29*	.49*	.50*	-.39*	-.24	.51*	.56*	–		
11. vers	.30*	.05	.00	.20	.28*	.12	.38*	.24	.10	.14

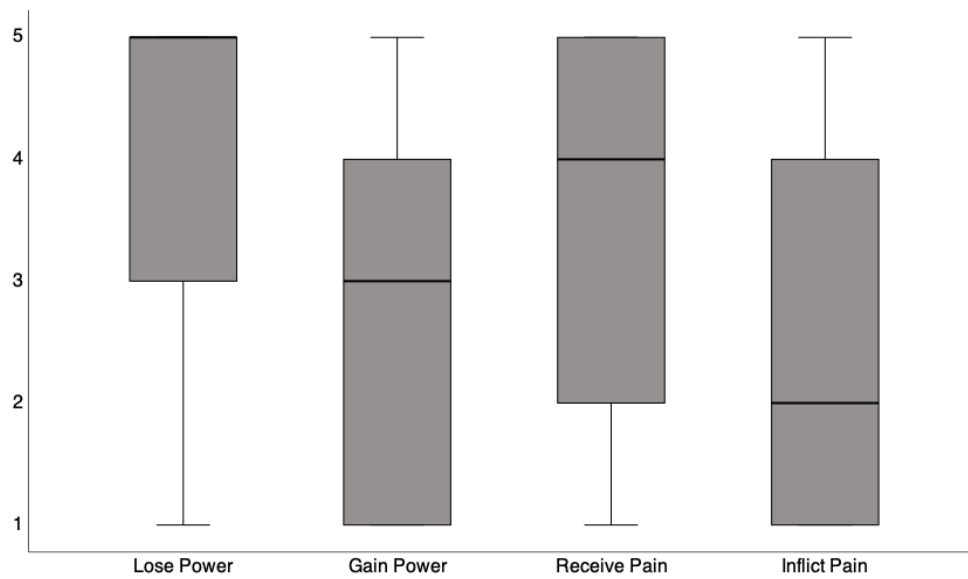
<sup>a</sup>Bottom; <sup>b</sup>submissive; <sup>c</sup>dominant; <sup>d</sup>sadist; <sup>e</sup>masochist; <sup>f</sup>brat tamer; <sup>g</sup>master;

<sup>h</sup>slave

\* $p < .05$

**Content Validity.** Existing checklists of similar or even related measures do not exist for help in assessing the convergent validity of the BIB checklist here. A subjective examination of the descriptive statistics for the checklist responses here indicates, however, that response patterns are generally in line with expectations based on the structure of BDSM proposed in chapter 2. Several of the figures below depict boxplots comparing checklist item response means and distributions. Generally, the means of the items that were intended to measure components proposed to be relatively more overarching or higher order were higher than those of items intended to capture more specific, variable components of BDSM. In some cases, core

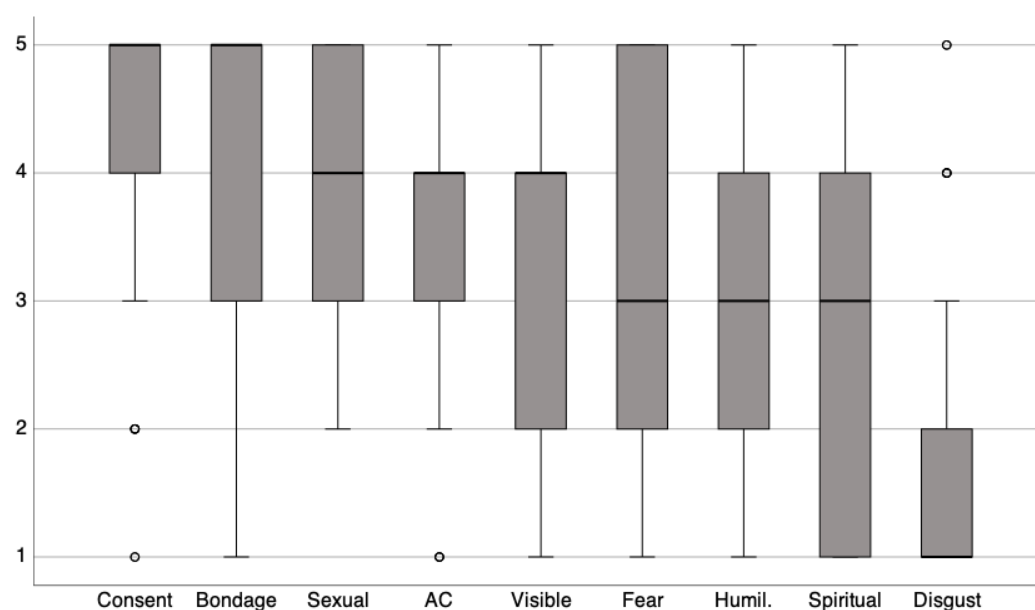
components were parsed into two corresponding items, in which case direct comparisons could not be made with other items. Figure 4 compares the distributions of reciprocal power and pain exchange items, which are proposed to be overarching components of BDSM. Power exchange items are endorsed to a greater degree on average than their corresponding pain exchange items. Figure 5 compares the distributions of two types of BIB items in order of descending endorsement. Three of these items capture components of BDSM identified as potentially fundamental (i.e. consent, bondage, and sexuality), and the others capture potentially motivating components suggested to be more variable across practitioners. Verbal humiliation was omitted from this comparison because of its redundancy with physical humiliation ( $r=.84, p<.05$ ). Though the power and pain exchange items in figure 4 cannot be directly compared with the items in figure 5, these figures together seem to suggest power and pain exchange items would have had higher mean responses than other behavioral items (aside from consent and possibly bondage), had they been written in a comparable manner.

**Figure 4***Boxplots of Reciprocal Power and Pain Exchange Items*

*Note.* These distributions are not directly comparable to those in figure 5 because power and pain exchange endorsement was parsed into two reciprocal items each: “Receiving pain is important for my BDSM practice” and “Inflicting pain is important for my BDSM practice”, and also “Relinquishing power or control to my partner(s) is central to my BDSM practice” and “Gaining power or control over my partner(s) is central to my BDSM practice”. This figure exemplifies the consistent pattern of greater endorsement of SSBM than DMTS oriented roles in these data.

**Figure 5**

*Boxplots of Consent, Bondage, and Other Behavioral Items*



*Note.* AC refers to the *altered consciousness* item here, *visible* to visible injury, and *humil.* to physical humiliation. CNC, non-sexual, and body modification items are not included in this figure because their distributions were visually identical to the visible injury, spiritual, and disgust distributions, respectively. Mommy or daddy, (little) girl or (little) boy, brat tamer, and brat roles were endorsed less than the others and are omitted.

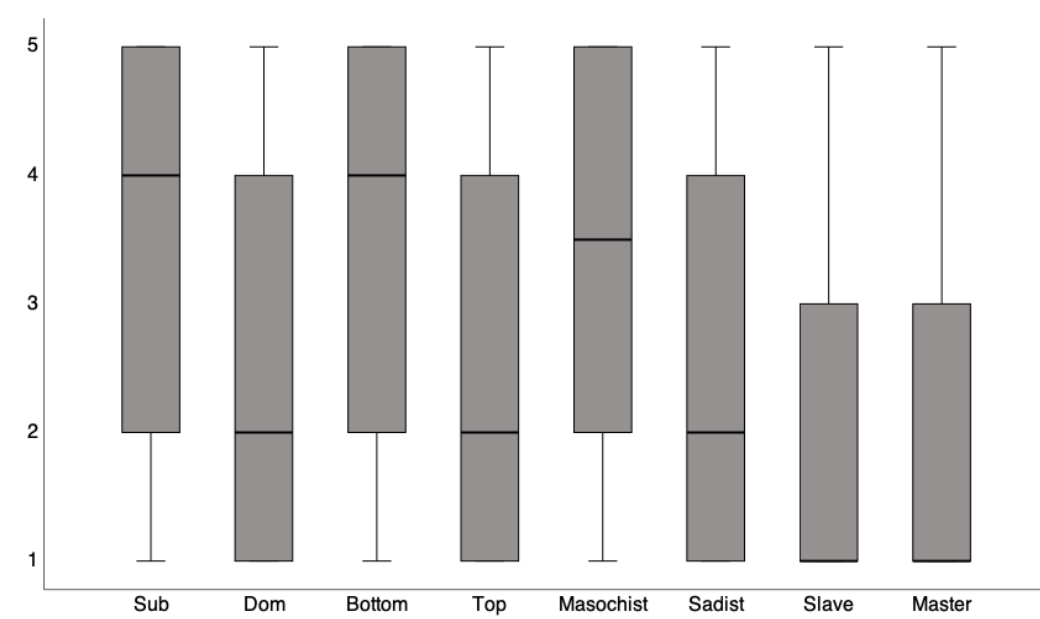
Lastly, figure 6 combined with the list of open responses in the following section allowed me to determine whether the item roles included in pre-existing BIB items represented the most common identities and roles well. The endorsement of these items relative to each other indicates that the broader and more encompassing identities such as submissive and bottom are more commonly adopted than those which are theoretically more specified such as brat and slave. The sample pattern of relatively greater

endorsement of SSBM than DMTS roles evident in figure 4 is even clearer in figure 6.

Table 11 further probes the subjective meaning of identifying with particular BDSM roles (see also table 10) by exploring patterns of association between various identities and behaviors. When power and pain exchange items are both included in the models, identification as a sadist or masochist was significantly associated with inflicting or experiencing pain, respectively, but not gaining or relinquishing power. The reverse was true of identifying with the more generalized top or bottom roles.

### Figure 6

*Boxplots of Most Common Identities or Roles*



*Note.* This figure exemplifies the expected pattern of more generalized, theoretically over-arching roles being more strongly endorsed than roles that are subjectively more specific and arguably subsumed within others. It also demonstrates the consistent pattern of greater endorsement of SSBM than DMTS oriented roles across these data.



**Table 11***Relationships Between BDSM Roles and Behavioral Motivators*

IVs	DV	$\beta$	$t$	$p$	95% CI
Gain Power	Sadist	-.004	-.025	.98	[-.26, .25]
Inflict Pain		.72	5.083	<.001*	[.43, .99]
Gain Power	Top	.53	3.68	<.001*	[.21, .73]
Inflict Pain		.22	1.65	.13	[-.065, .51]
Lose Power	Masochist	.12	1.20	.23	[-.083, .33]
Gain Pain		.73	7.47	<.001*	[.54, .94]
Lose Power	Bottom	.61	5.58	<.001*	[.40, .85]
Gain Pain		.22	2.03	.047*	[.003, .43]

\* $p < .05$

**Open Responses.** In addition to helping characterize the sample itself, the write-in item is highly valuable particularly in these early iterations of the checklist because the frequency and type of responses provides information about how well the values and behaviors of the respondents are captured by the current items. Twenty-one respondents (36.2%) included 42 separate write-in responses. A list of raw responses can be found in Appendix B and table 12 lists and comments on responses that weren't clear duplicates or synonyms of existing items.

**Table 12***Notable Open Responses to BIB Checklist Item 41<sup>a</sup>*

Response(s)	Notes (Including Potentially Related Item(s)(#))
Pet; pet handler; leather boy	Identities infrequently endorsed enough to refrain from adding them as pre-categorized identities and/or represent subcategories of existing items ((little) girl/boy, 14).
Denial; begging; interrogation; reliving trauma (also below); edge play (also below); forced orgasm; forced bisexuality; cuckoldry; primal play	Behaviors that may contain motivational components of power exchange (20,21) or pain exchange (17,18), and more specifically humiliation (28,29), fear (31), and/or disgust (32), and/or may be subsumed by other aggression item (30). Alternatively, they may be overlooked in the current BIB, as respondents suggest.
Acts of service; praise; protecting/nurturing my submissive	Potential proximate motivators of BDSM, possibly related to power (20,21) and/or pain exchange (17,18). Highlights that multiple behavioral items associated with conventionally appetitive stimuli (aside from sexual arousal, spirituality) may be overlooked from current scale.

<sup>a</sup>“There are important or recurring elements of my BDSM practice or identity that aren’t captured by any of the items above (please list here, with each element separated by a comma if there are more than one)”

**Table 12 (cont.)***Notable Open Responses to BIB Checklist Item 41<sup>a</sup>*

Response(s)	Notes (Including Potentially Related Item(s)(#))
Adrenaline; edge play (also above)	May share variance with altered states of consciousness (23). Also possibly related to many other motivators, such as power (20,21) or pain exchange (17,18), fear (31), CNC (25), etc.
Creating a shared fantasy	Considered for inclusion under a category such as “intimacy” in second iteration of BIB due to a potential association with positive relationship and social belongingness outcomes (see table 2 for examples of these findings).
Reliving trauma (also above)	Could be a psychological analogue of transformed pain. See (Hammers, 2013) and (Thomas, 2020).
Importance of competence and skill	Not within intended scope of BIB.

<sup>a</sup>“There are important or recurring elements of my BDSM practice or identity that aren’t captured by any of the items above (please list here, with each element separated by a comma if there are more than one)”

## Chapter 5: Discussion

The current study evaluated two primary questions. One concerned the validity of the first iteration of the BDSM Identities and Behavior (BIB) checklist designed to operationalize BDSM. The second research question concerned how trait sadism constructs compared in BDSM practitioners and non-practitioners. Findings related to these and the secondary aims of this study are summarized and discussed below.

### Demographic Characteristics of BDSM Practitioners

Demographic traits of BDSM practitioners in this study were consistent with the historical pattern of overrepresented educated, non-straight white people in BDSM communities (e.g. Richters et al., 2008; Damm et al., 2018; Moser & Levitt, 1987; Hunt & Sigma, 1990). Compared to the MTurk group, the practitioner group was more likely to identify as either bisexual or homosexual than heterosexual. There was no group difference in race, but white people accounted for over 87% of respondents in both study groups. This is likely to be partially related to the small individual sample sizes of each group, but also consistent with expectations for the practitioner group. Contrary to prior samples, I found no difference in having completed any degree of higher education among BDSM practitioners. This sample is too small, however, for useful speculation related to this result. Future iterations of this checklist with larger sample sizes will help determine whether any particular components of the heterogeneous BDSM construct are responsible for demographic differences among practitioners.

## **Comparing Practitioners and Non-Practitioners**

### ***Trait Sadism Distributions***

The distributions of prosocial and everyday sadism were compared across groups and to their corresponding distributions from the general population sample in the original PAMS study (Russell, 2019). There are differences between the two current samples that don't differ between the current and prior general population (MTurk) samples. Everyday sadism appears to approximate a bimodal distribution in the current MTurk sample, as it did in the prior general population sample, but among BDSM practitioners the SSIS distribution is noisier and difficult to interpret. Prosocial sadism approximated a normal distribution with a positive skew in the current practitioner sample, which was less uniform than the prior general population sample. The current MTurk sample appears to have a noisy prosocial sadism distribution approximating either a uniform distribution or a normal distribution with a strong positive skew.

The linear relationship between everyday and prosocial sadism across each of the three aforementioned samples were then compared to each other. The current MTurk sample exhibited the same cluster of high PAMS, low SSIS respondents found in the prior sample, but BDSM practitioners exhibited a less linear relationship between the two variables and did not exhibit the same subjective clustering. In light of this replication, I suggest the depicted relationship between prosocial and everyday sadism may be robust in the general population.

Due to limited sample size and therefore limited confidence in these distributions, I draw no conclusions about why the relationship between

everyday and prosocial sadism may differ across practitioners and non-practitioners. I suggest, however, that the current distributions of sadism traits among practitioners may be a result of limited scale generalizability in these populations. These scales were constructed with antisocial, non-consensual aggression in mind, and some items seem to unintentionally overlap with BDSM-type behavior. This could cause inflated scores on either or both scales, depending on the individual respondent, creating a situation such that some individuals score higher on the PAMS than the SSIS, but the inverse also occurs. Additionally, SSIS items are vaguer and depict amotivational aggression subjectively more likely to be interpreted as applying to consensual BDSM-type aggression than the PAMS items with specified behavioral rationale are. This may lead to inflated SSIS scores to a greater degree than PAMS scores, masking the presence of relatively high prosocial sadism and low antisocial sadism respondents. Other results consistent with poor generalizability are identified and discussed further in the future directions section.

### ***Personality Differences***

BDSM practitioners scored lower than non-practitioners on prosocial sadism, subclinical narcissism, Machiavellianism, and psychopathy. Prior studies have mixed findings on the relationships between dark triad traits and BDSM practice, so the current results are not consistent with any particular precedent. They also do not differ in the direction that would be explained by only DMTS identities sharing dominance variance with the aggressive personality traits (i.e. if the finding was driven by DMTS identities alone and SSBM identities were not associated with the personality traits). I therefore

conducted more exploratory analyses probing the sample differences to identify possible explanations for these findings. One such explanation could be that SSBM and DMTS identified practitioners tend to lie on opposite ends of the psychopathy, narcissism, Machiavellianism, and “prosocial sadism” spectrums, and the over-representation of SSBM leaning practitioners in the current sample is therefore responsible for lower mean personality scores among practitioners. As expected, bivariate correlations between each of the personality traits and each of the identity items indicated opposing relationships between the personality traits and items of each identity pair. Psychopathy, for example, is positively correlated with DMTS items and negatively correlated with corresponding SSBM items. Correlations between personality traits and DMTS roles were larger and significant in more cases than with SSBM roles, however, and when regressed on pairs of corresponding roles, personality traits tended to predict the DMTS role but not the SSBM one.

Though the current data cannot probe these sample differences with any further confidence, several non-mutually exclusive explanations are possible if they generalize to the practitioner population. Practitioners may react to the stigma associated with their sexual practices or identities with increased socially desirable responding to subjectively antisocial scale items. Alternatively, the group differences may represent true personality differences between practitioners and non-practitioners. Peer-selection of antisocial individuals out of the BDSM community is documented by many BDSM ethnographers, and self-selection of less antisocial individuals into the community is also theoretically possible. As reviewed in chapter 2, BDSM is

often a highly involved practice requiring practitioners to spend large amounts of resources and time, much of which is spent caring for play partner(s).

Committing to this practice and finding partners may have a costly enough barrier for the majority of people to benefit from entering. The practice is socially intimate, and current findings suggest its benefits may include community-acceptance, relationship satisfaction, and other effects likely to be motivational for prosocial individuals particularly concerned with intimate social connections (e.g. Weiss, 2011; Sprott & Hadcock, 2017; Kimberley et al., 2018; Hebert & Weaver, 2015). By contrast, antisocial individuals may not have strong inclinations toward the practice unless for nefarious (i.e. non-consensual, non-BDSM compatible) intentions, in which case the BDSM community is not likely to be their easiest source for victims (e.g. Pitagora, 2013; Williams, 2002).

If these differences do represent a true population difference, it's notable that everyday sadism doesn't also differ. Additionally, prosocial sadism also exhibiting a negative association with BDSM experience is inconsistent with the above explanations for the differences in dark triad traits. Again, however, variable degrees of scale generalizability may interact with any other explanations for the findings related to personality traits in way that can't be discerned by the current study. I reason that the most likely scenario in the event of a true population difference in prosocial sadism, Machiavellianism, narcissism, and psychopathy traits among practitioners is that the current results are obscured due to the poor generalizability considered above. Only some items of the SD3 and PAMS should theoretically have difficulty generalizing to practitioners, while others should



measure the same construct regardless of BDSM identity. The SSIS items are vaguer, however, and largely don't specify behavioral motivations, so more (most) potentially apply to consensual sadism. If everyday sadism scores would otherwise be lower among BDSM practitioners than non-practitioners, they could here be artificially inflated among practitioners causing no mean difference.

### **BDSM Identities & Behaviors (BIB) Checklist**

#### ***Validity***

Correlational and descriptive analyses suggested generally coherent responding on the BIB checklist. Individual item distributions followed logical patterns indicating that participants understood and responded to items in a manner consistent with how they responded to other items and what we know about BDSM behavior and identity. Multicollinearity analyses indicated that no items should necessarily be removed for redundancy. I do suggest combining the verbal and physical humiliation items into one, however, because their redundancy suggests including both is minimally useful for studying BDSM structure or function. Some of the non-corresponding role items (e.g. dominant and top) had strong correlations, but not so strong that I suggest removing items in the next iteration of the checklist. A degree of overlap is expected between role pairs and certain non-pairs that are oriented in the same direction (e.g. both SSMB roles), as practitioners don't often adopt a single or static role. It is also consistent with the expected factor structure and useful for analyzing nuanced relationships between role items and behaviors. Even item pairs such as sexuality and non-sexuality, and community and

private practice, are not strongly correlated enough to be considered redundant.

Preliminary analyses and subjective evaluation of the item descriptives suggested the BIB scale may successfully capture most BDSM-related motivations and behaviors. First, the write-in responses suggested that practitioners generally found the most important components of their practice and identity represented among existing BIB items. There was an average total of only .29 items listed per participant, and most responded with 0-2 items. Of the open responses that fell within the scope of the BIB checklist, most were either synonymous with existing items or specific behaviors subsumed within them. The majority of the open responses consisted of specific types of physical or psychological control or coercion. All seem likely to be motivated by power or pain exchange components, but I still categorize and consider them in scale modifications due to their apparent salience among practitioners.

### ***Characterizing BDSM***

Analyses of item descriptives and the relationships between them aligned with the expected structure of BDSM. Here I discuss what these data suggest about the psychology and psychometric structure of BDSM. The subsequent section covers general suggestions for future BIB checklist iterations based on these results.

**Power and Pain Exchange.** The data collected from this sample are generally consistent with the components and structure of BDSM summarized in chapter 2. I suggested that power exchange and pain exchange were likely to represent higher order components of BDSM and be among the most

commonly endorsed items. I also characterized power exchange as more likely to be a consistent component of BDSM, possibly subsuming pain exchange. The current data support these conclusions. Additionally, different role items were preferentially associated with either power or pain exchange in ways that were consistent with how practitioners subjectively define the roles. Identification as a sadist or masochist was more associated with pain exchange preoccupation, for example, than the more generalized top and bottom identity items were. Top and bottom identities, by contrast, were associated with power exchange but not pain exchange items.

**Consent.** The current findings support consent as the least variable component of BDSM. It was the most endorsed item with the strongest negative skew and still unrelated to most other items. I sought out negative bivariate correlations between consent and any other scale items to identify components of BDSM associated with more variability in consent vs. coercion. I reason that if BDSM and non-consensual forms of sadism overlap at all on metrics of coercion (e.g. paraphilic coercion), traits negatively associated with consent would be useful to identify. The importance of consent was only correlated with identification as a sadist, identification as a parent (i.e. mom or dad), and engagement in total power exchange (TPE), however, all of which were positive associations.

Reasoning that TPE practitioners seem to have unique relationships with many other scale items, I explored whether this item fully accounted for the shared positive variance between the DMTS role items and consent. Even when controlling for TPE, however, identification as a sadist or parent predicted greater preoccupation with consent. I suggest, therefore, that

increased emphasis on consent may be found among those who practice TPE or specified DMTS-type roles because of the even greater responsibility involved. TPE involves ongoing CNC dynamics, further complicating the necessary precautions for the DMTS partner. DMTS practitioners are known to take practice more subjectively seriously than those in SSBM roles, which I suggest is driven by the same factors causing the current findings (e.g. Brown et al., 2019). I reason that DMTS practitioners may be even more preoccupied with consent than the average practitioner because a careless demeanor or serious mistake in this area may threaten their role in the community. I also expect that commitment to BDSM is associated with specified role identities more-so than generalized ones, because those who adopt more specialized identities may also be more experienced.

**Bondage and Restraint.** Much like consent, the importance of bondage and restraint was mostly uncorrelated with the importance of other construct components. Average endorsement of the bondage item was similar to consent but had more variance. It was endorsed to a degree greater than any comparable BIB items, including sexuality, aside from consent. These findings are consistent with the suggestion that bondage is relatively fundamental to the BDSM construct but more variable than consent. The only item bondage was significantly associated with was the importance of experiencing pain (*not* inflicting pain), with which it was slightly positively correlated. These findings support subjective descriptions of bondage and restraint which suggest its motivation is not explained by power or pain exchange alone. They also beg the question of why bondage is motivational,

on either a proximate or ultimate level of analysis, if not associated with any of the proximate or potentially ultimate motivators measured here.

**Sexual and Non-Sexual Practice.** Findings were also consistent with the suggestion that sexuality is among the most common components of BDSM, but not an operational necessity. Compared to variable components such as disgust and body modification, practitioners rated sexuality as a more frequent practice component. They rated it as just slightly less important than consent on average, but responses were more variable and less negatively skewed. Though BDSM is colloquially inextricable from sexuality, literature reviews and the current data both suggest non-sexual motivations for BDSM are not rare. Participants here rated the frequency of non-sexual motives in their practice around the same as rape play or top roles, and more frequently than disgust and some specialized identity roles. Bivariate correlations shed little light on practitioners' motivations for non-sexual practice, as its relative frequency was only correlated with TPE. I estimate that the connection between TPE and non-sexual practice is not due to motivational causes but because when one is engaged in 24/7 BDSM a greater proportion of practice is inevitably non-sexual. This highlights one specific reason non-sexual or asexual BDSM can occur, but it's unclear based on the current items what psychological factors non-sexual practice is motivated by in other contexts. Sexual and non-sexual BIB items were also not redundant with each other, suggesting the two facets may exist in parallel and be best measured on distinct scales.

**Community and Private Practice.** Private practice was reported as more frequent than community practice, which was one of the rarer positively

skewed variables. Relatively weak endorsement of the community item compared to others was surprising given the social benefits of community described in the literature. The low endorsement is not explained by practitioners getting their community participation in online settings, as endorsement of the online variable was also much less than private practice and negatively skewed. This might suggest the community benefits of BDSM are derived from community engagement unrelated to active practice such as attending munches or other non-play style event. In this case, subjective interviews or experimental studies will be required to determine whether this is the case, unless the BIB checklist were modified to include non-practice components of BDSM culture.

**Other Measures.** The proximate psychological components measured that could theoretically be motivators for the pain and power exchange themes were mostly unrelated to the measures capturing those constructs. It is surprising that few interpretable connections could be drawn between the proximate components and the more conceptual, overarching motivations for BDSM. Many of the potential psychological motivators were, however, rated almost as important as bondage and sexuality, suggesting they should also be considered as potentially overarching facets of the construct.

The proximate psychological components rated most important to practitioners were altered states of consciousness, visibility of injuries, humiliation, and fear. Body modification was rated much less important than visible injury, suggesting the acute visual effects of aggression might be more relevant than the lasting ones in the context of BDSM. Given the small sample size here, even components that are weakly endorsed (e.g. disgust, body

modification, and transformed pain) may be relevant to the etiology and function of the construct. Some of these less endorsed components were correlated significantly with items representing specific acts, such as rape and CNC, but not correlated with items expected to represent overarching facets. This suggests the more variable motivational factors such as disgust may be associated with BDSM practice through associations with specific and also variable practice components.

### **Study Limitations**

This study is limited by the small sample size of both groups. Sample bias is difficult to identify in this study, however, due to the questionable generalizability of various measures. I detected group differences in several variables, but again, confidence in the associated confidence intervals is limited. Given the preliminary success of the BIB checklist and how many items it includes, a larger sample of practitioner participants for future iterations is a priority. Aside from the small sample size, the interpretation of these results is also limited by the seemingly lower quality data collected from MTurk participants. It took a total of 89 initial respondents for a final sample size of 49 due to inattentive responding. In more recent years MTurk data has gone through what some researchers refer to as a “quality crisis” (e.g. Kennedy et al., 2020).

Another limitation is the questionable generalizability of dark personality scales in BDSM practitioners. Practitioners may have difficulty interpreting and responding to items measuring antisocial aggression because some erroneously apply to both consensual and non-consensual aggression. Practitioners in this study may be particularly likely to interpret these items as

referring to BDSM because they had been primed to think about BDSM by the questionnaire itself. The BIB checklist was administered last to reduce priming effects, but inclusion criteria inevitably reminded participants of their identity as practitioners before they began the study.

### **Future Directions**

In general, continuing research into the psychometric structure of sadism should prioritize administering the BIB checklist to a much larger sample alongside measures of dark personality traits, prosocial sadism, paraphilic coercion, and aggression enjoyment. Given the heterogeneity of BDSM and how many discrete variables will therefore be involved in its operationalization, large datasets will be particularly important for developing and refining accurate measures. Given the infancy of sadism research in general and the number of novel variables introduced here, the implications of the current study are diffuse. Here I focus on how the current results inform the next iteration of the BIB and suggest an area of primary focus in future research seeking to improve sadism operationalization.

### ***Checklist Modifications***

**Power and Pain Exchange Items.** I suggest the power and pain exchange item pairs be divided into two items each. These would measure the importance of power exchange and pain exchange to one's practice without the associated effects of role orientation (i.e. SSBM vs. DMTS). The two new items would be written similar to the current bondage item. The way they are currently written prevents direct comparisons of pain and power exchange with items capturing bondage, consent, or any other components. Here bondage and consent importance could be compared to proposed



lower-order components such as disgust and fear, but pain and power exchange endorsement could not because they were parsed into two separate items each.

**Humiliation Items.** Physical and verbal humiliation items are highly correlated here ( $r=.84$ ). If this finding is representative of the corresponding population parameters, physical and verbal humiliation items should be combined into a single general humiliation item. The minimal variability they convey that doesn't overlap is not likely worth the practical cost of the additional item, particularly when subsequent iterations are likely to retain so many items.

**Other Punishment Item.** Item 30, which rates the importance of punishment or torture components of practice that aren't associated with humiliation, degradation, or power exchange, was endorsed to a moderate degree and only correlated with one other behavioral item: fear. This suggests there may be meaningful variation in BDSM practice not captured by the other existing items. It also suggests that the item doesn't convey much interpretable information in its current form, however, so I suggest removing it in lieu of obtaining the intended information with an alternative measure. The endorsement of this item indicates participants believe behavior(s) they're engaging in, possibly related to fear in many cases, fall under this description. It's unclear why item 30 relates to the importance of fear alone; fear could theoretically be subsumed under power exchange, or pain exchange alone, or another facet. In the current sample, however, endorsement of the fear item was not associated with endorsement of power or pain exchange items, nor bondage. To probe this it would be ideal if practitioners were interviewed

about their motivations for play punishment not included in the current iteration of the BIB checklist. Without subjective data, it is unclear what behavior participants have in mind when they respond to items such as 30, and whether they've classified that behavior under the same category researchers would.

**Community-Related Items.** Given the interest in the functional value of BDSM and how it relates to the empirical benefits observed, I suggest adding items probing the specific elements of community practice that may be more clearly associated with homogeneous motivation facets. Multiple simultaneous or closely sequential play (or sex) partners and exhibitionism are my suggestions for psychological motivations promoting community over private practice. For the community practice item itself, I suggest combining it with the private practice item. Participants can provide the same information about their relative participation in each type of practice more succinctly on a bidirectional scale ranging from "always in private" to "always in community settings". Given how low the mean community practice rating was, subjective descriptions of practitioners' understanding of this item may also be worth seeking in subsequent interview or expanded questionnaire studies.

**Identity Role Items.** I suggest retaining all identity role items in at least the next iteration of the checklist. Depending on future findings, it may be efficient to combine top and bottom items with dominant and submissive items, respectively, due to their strong correlation here. It is worth collecting empirical data on practitioners' understandings and personal definitions of those constructs first in case they still have meaningful distinctions. Including them in another iteration is important for ensuring these correlations are

generalizable, and for measuring the relationship between each identity role and behavioral component in a larger sample where SEM can be used. The average importance of slave, master, (little) girl/boy, and parent roles were very low relative to other items in the checklist in general. I suggest retaining even these items, however, in hopes of capturing some meaningful variability with respect to identity roles capturing particular proximate motivations or BDSM types in a larger sample size.

**Open Response Item.** I suggest retaining the open-response item due to the quality of responses received in this iteration. Additionally, I suggest including another item more explicitly inquiring about practitioners' subjective opinions on the breadth and specificity of the scale coverage and item redundancy, if in lieu of interviewing them about these variables. The open responses collected here implied this item was generally good at capturing important facets of BDSM, but the conclusions that can be drawn from these data are very limited in their current context. The current open-response item is also limited in that it doesn't probe respondents' thoughts about elements of the checklist aside from contents. It's unclear whether the Likert scale responses employed here, for example, promote ease of responding.

**Caretaking and Intimacy-Building Items.** Data from the open-response item in the current sample suggests most concepts are well-represented at the intended level of analysis in the current BIB iteration. Items representing caretaking and/or dyadic intimacy between practitioner partners may have been overlooked. They were originally expected to be subsumed by the two power exchange items, but may still be important proximate motivators worth measuring. As currently written, the BIB checklist under-

represents more traditionally appetitive stimuli, such as praise, security, and acts of service, that practitioners indicated were important. To qualify BDSM in a thorough and unbiased manner, components of the construct that are often concentrated during aftercare or more-so among practitioners who practice “24/7 BDSM” must be equally assessed. It’s unclear as of yet what the relationship between scene play and aftercare is and whether it makes sense to quantify them within the same measure.

### ***Assessing Generalizability of Aggression-Related Measures***

The current findings suggest possible differences in dark personality traits and prosocial sadism between BDSM practitioners and non-practitioners. It’s unclear whether these reflect population differences, however, due to the questionable generalizability of dark personality scales among BDSM practitioners. Before other research questions about sadism operationalization are considered, it’s necessary to empirically assess the generalizability of sadism and dark personality scales. As discussed earlier in the context of the SSIS and PAMS, the wording of many aggression-related scale items are ambiguous with respect to consent and coercion. This could result in trait sadism and SD3 scales capturing a combination of trait and BDSM-type sadism components when administered to practitioners. If this were the case, descriptive statistics and internal reliabilities could look similar to the current findings. To determine whether these aggression related measures are valid among BDSM practitioners, they should be measured alongside corresponding behavioral operationalizations in practitioner and non-practitioner populations. Interviews collecting subjective interpretations of these scale items from practitioners will also be important in validating the

scales that don't have valid or simple behavioral analogues like trait sadism. These studies should be conducted on an exhaustive set of aggression-related measures used in the field of sadism research because of the unclear relationships between sadism and aggression constructs.

### ***Operationalizing Coercion, CNC, and Aggression Enjoyment***

There is a subjective parallel between paraphilic coercion (PC) in SSD, social dominance seeking as a component of trait sadism, and the power exchange aspect of BDSM. A corresponding parallel exists between the aggression enjoyment components of non-consensual sadism and the pain exchange (i.e. sadomasochistic) components of BDSM. Power exchange is distinct from paraphilic coercion, however, due to the complicating effects of consent and CNC within BDSM. The current findings are consistent with the idea that consent, CNC, power exchange and pain exchange each have distinct and salient meanings to practitioners. They should therefore be studied alongside each of their trait sadism and SSD analogues. I specifically suggest including an exhaustive set of measures, including scales that capture the same measure. This will maximize interpretability of the results despite the low construct and convergent validity associated with sadism measures. Additionally, including all possible scales will allow researchers to consolidate measures and maximize convergent and discriminant validity in sadism research.

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## Appendix A: Study Materials

Below are all questionnaire items, novel and cited, administered to both groups of participants. All items are scored on a five-point Likert scale, where 1=strongly disagree and 5=strongly agree, unless otherwise noted.

### Demographic Questionnaire

Inclusion Criteria: BDSM practitioner sample\*

1. Are you a fluent English reader?\*\*
  - a. Yes
  - b. No
2. What is your age?\*\*  
\_dropdown\_
3. What is your state of residence (note that residence in the USA is required for inclusion in this sample):\*\*  
\_dropdown\_
4. Have you participated in a total of at least 20 hours of BDSM (i.e. not consecutively or uninterrupted) across your lifetime?\*\*
  - a. Yes
  - b. No

\*The MTurk sample did not respond to question four of the inclusion criteria or demographic questions 8-10.

\*\* Required response. Note that if you are not fluent in English, at least 18 years of age, a resident of the United States, or have not participated in at least 20 hours of BDSM in your lifetime, you are not eligible to complete this questionnaire. Thank you for your time and for your participation.

1. Your gender is:

- A. Male
  - B. Female
  - C. Agender
  - D. Non-binary
  - E. Other: \_ Open response \_
2. Are you transgender?
- A. Yes
  - B. No
3. Your primary sexual orientation is:
- A. Heterosexual
  - B. Homosexual
  - C. Bisexual or pansexual
  - D. Asexual
  - E. Other: \_ Open response \_
4. What is/are your relationship orientation(s) or preferred structure(s)?
- Monogamous
  - Ethically non-monogamous—ENM (or “consensually non-monogamous”—CNM)
  - Polyamorous
  - Open
  - Swinging
  - Relationship anarchist
  - Other: \_Open response\_
  - None – I choose not to date



- None – I don't identify with any relationship orientation or structure
  - Uncertain
5. Do you identify as Hispanic or Latina/o/x?
- a. Yes
  - b. No
6. Select the race(s) you identify with most:
- Indigenous American or Alaska Native
  - Asian
  - Black
  - Native Hawaiian or other Pacific Islander
  - White
  - Other: \_Open response\_
7. Select the highest degree of education that you've completed:
- a. Elementary school
  - b. High school
  - c. College or a 2-year degree
  - d. University or a 3-5 year degree
  - e. Masters degree
  - f. Professional doctorate degree (e.g. JD, MD, PsyD)
  - g. PhD
8. Please estimate how many hours of BDSM you've engaged in or practiced across your lifetime thus far. This estimate should include hours spent privately with partners or alone, including online play, and scenes or play at clubs, parties or elsewhere. This estimate should

NOT include time spent socializing with partners or community outside of a play context, at munches or elsewhere.

\_ Open response \_

9. Please estimate what percentage of the above number of hours were spent on online play:

\_dropdown\_%

10. Please estimate how many years total (cumulative, not necessarily uninterrupted) you've practiced BDSM for, using this drop-down list. If you practiced actively for ten years, took a five-year break, then continued to practice for another 3 years, for example, you'd select "13". If you've practiced for less than one year, please select "0".

\_dropdown\_

Minimum: 0

Maximum: 85

### **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.*

### **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.

**BDSM Identities & Behaviors (BIB) Checklist**

Response scale:

1=never, 2=rarely, 3=sometimes, 4=usually, 5=almost always or always

1. In the context of BDSM roles, I identify as a submissive or perform  
submissiveness
2. In the context of BDSM roles, I identify as a dominant or perform  
dominance
3. In the context of BDSM roles, I identify as a slave
4. In the context of BDSM roles, I identify as a master
5. In the context of BDSM roles, I identify as a sadist
6. In the context of BDSM roles, I identify as a masochist
7. In the context of BDSM roles, I identify as a top
8. In the context of BDSM roles, I identify as a bottom
9. In the context of BDSM roles, I identify as a switch
10. In the context of BDSM roles, I identify as versatile or a vers
11. In the context of BDSM roles, I identify as masculine or perform  
masculinity
12. In the context of BDSM roles, I identify as feminine or perform  
femininity
13. In the context of BDSM roles, I identify as a mommy or daddy
14. In the context of BDSM roles, I identify as a (little) girl or (little) boy
15. In the context of BDSM roles, I identify as a brat
16. In the context of BDSM roles, I identify as a brat tamer
17. Receiving pain is important for my BDSM practice
18. Inflicting pain is important for my BDSM practice

19. Restraint or bondage are important to my BDSM practice
20. Relinquishing power or control to my partner(s) is central to my BDSM practice
21. Gaining power or control over my partner(s) is central to my BDSM practice
22. During my BDSM practice I experience pain as pleasure, or other type(s) of “transformed pain”
23. When I practice BDSM I experience altered states of consciousness
24. Explicit verbal, written, or contractual consent is central to my BDSM practice
25. My BDSM practice involves consensual non-consent
26. I describe my practice as “total power exchange” (TPE) or “24/7 lifestyle” BDSM
27. My BDSM practice involves rape play
28. My BDSM practice involves physical humiliation or degradation
29. My BDSM practice involves verbal or other types of non-physical humiliation or degradation
30. My BDSM practice involves torture or punishment (either physical or psychological) that isn’t related to humiliation, degradation, or power exchange
31. My BDSM practice involves emotions of fear or anxiety/anticipation
32. My BDSM practice involves emotions of disgust
33. I consider my BDSM practice spiritual
34. I consider my BDSM practice sexual

35. I consider my BDSM practice asexual or non-sexual, and engage in it for other reasons such as exploration of myself or my relationship(s)
36. I practice BDSM in a community setting (e.g. public or club dungeons, play parties, ...)
37. I practice BDSM in a private setting, either with close partner(s) or alone
38. I practice BDSM online
39. My BDSM practice involves body modification (e.g. scarification, branding, piercing, ...)
40. It's important for me to see or feel the physical results (e.g. red skin, bruises, rope burn, blood ...) of the pain or power exchange involved in my BDSM practice
41. There are important or recurring elements of my BDSM practice or identity that aren't captured by any of the items above (please list here, with each element separated by a comma if there are more than one):
- \_ Open response\_

### **Compensation**

These questions are not included in data analysis and are only for the purposes of providing participants with their compensation for participation. The first question was administered to BDSM practitioner participants only, and the second to the MTurk sample only.

1. Please select one of the following kink-positive grassroots organizations to receive \$100 due to yours and 49 others' participation in this survey:
  - A. Woodhull Freedom Foundation

- B. The Effing Foundation for Sex-Positivity
  - C. CARAS: Community Academic Consortium for Research on  
Alternative Sexualities
  - D. National Coalition for Sexual Freedom (NCSF)
  - E. Other suggestion (please list): Open response
1. Please enter a 5-character code that can be used to uniquely identify  
you so we can provide you with compensation via your MTurk account:  
Open response



## Appendix B: Supplementary Results

### Write-in Responses

The following is a complete list of directly quoted write-in responses to BDSM Identity and Behavior (BIB) Checklist item 41:

Begging, Christian domestic discipline, circus stuff (clowns/circus acts/flashy outfits/the general aesthetic), collars, communication, control, creating a shared fantasy, cuckolding, denial, edge play like breath play, emotional manipulation, fire play, focus on adrenaline, forced bisexuality, forced orgasm, forced physical exertion, giving/receiving a bite mark specifically on shoulder, importance of competence and skillful practice, interrogation, leather boy, mindfuckery, objectification, performing acts of service, pet handler, pet, positive praise/affirmations from my dom when doing the right thing [and] negative praise/scolding when acting against my Dom's will, primal play, protecting/nurturing my submissive, reliving trauma, tease and denial, willingness.

**Normality & Skewness Statistics****Table B1***Skewness of Personality Measures*

Measure	Skewness		SE	
	BDSM	MTurk	BDSM	MTurk
SSIS	.432	.247	.314	.340
PAMS	.722	.044	.314	.340
Machiavellianism	.077	-.385	.314	.340
Narcissism	-.272	-.293	.314	.340
Psychopathy	.229	-.348	.314	.340

**Table B2***Kurtosis of Personality Measures*

Measure	Kurtosis		SE	
	BDSM	MTurk	BDSM	MTurk
SSIS	-.945	-1.462	.618	.668
PAMS	-.213	-1.048	.618	.668
Machiavellianism	-.951	-.628	.618	.668
Narcissism	-.228	-1.056	.618	.668
Psychopathy	-.348	-1.247	.618	.668

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