THE MEDIATING ROLE OF SOCIAL DOMINANCE ORIENTATION BETWEEN

DARK TETRAD PERSONALITIES AND HAZING BEHAVIORS IN COLLEGE

STUDENTS

by

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DEDICATION

To my parents, Javier and Mary, whose affection, love, and support have helped me through good and hard times. Also, to Monique, whose joy, sense of humor, and advice made it possible for me to go through graduate school.

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ABSTRACT

This study investigated whether dark tetrad personalities (psychopathy, machiavellianism, narcissism, and sadism) can predict hazing behaviors, whether Social Dominance Orientation (SDO) has a mediating role between these variables, and whether group cooperation level and personal role in a group can also predict hazing behaviors. For this project, 416 students at Texas State University were recruited via the Human Subjects Pool webpage created by the Department of Psychology. These participants completed an online survey including scales for the previously mentioned variables. Statistical analyses showed that males tended to favor more severe hazing behaviors than females and that the level of group cooperation also predicted hazing severity. Furthermore, SDO did not act as a mediator between dark personalities and hazing behaviors. However, machiavellianism, sadism, and SDO predicted severe hazing. Lastly, machiavellianism and sadism acted as moderators in the relation between SDO and hazing behaviors while controlling for the effects of gender and group cooperation. Implications and directions for future research are discussed.

CHAPTER 1

INTRODUCTION

College students who seek to join campus organizations, in order to be able to socialize and be part of a group, sometimes undergo initiations. This is a common occurrence for these young men and women all over the world (Finkel, 2002). However, these initiations can entail many diverse acts which sometimes are capable of producing severe physical and psychological repercussions. Some examples of harsh inductions include paddling, being forced to drink excessive amounts of alcohol, stripping naked under extreme cold weather, body shaming, and many others (Ellsworth, 2006). These types of initiation acts are known as hazing and they can be particularly dangerous, sometimes leading to the deaths of victims. Furthermore, the fact that hazing takes place throughout the U.S has been a great cause for alarm and continued research. Therefore, it is important to study the factors associated with the desire some college students may have for hazing their peers.

<u>Hazing Behaviors in College Students</u>

Although many may think that hazing is a relatively new occurrence of modern society, Finkel (2002), reported that this practice can be traced to the early 1600s and that it has been a common occurrence all over the world, taking place in areas such as North Africa, Europe, Greece, and the United States. Hazing, then known as pennalism, was encouraged by university authorities who viewed students as people in need of "grooming." However, this practice was eventually eliminated because of the increasing number of injuries and fatalities that occurred as a consequence of it.

Today, hazing is seen as a punishable criminal act by local and nationwide authorities. However, necessary legal changes were, for the most part, implemented separately only after serious events took place in each community (Montague, Zohra, Love, McGee, & Tsami, 2008). Two examples of events that sparked local legislation are given by these authors. The first one took place at the University of Arizona, where pledgees were forced to step into a freezer and consume their own vomit. Another such incident occurred at a state university in Los Angeles, in which pledgees drowned because they had been required to walk into the ocean while blindfolded.

However, just because these acts have been made illegal, it does not mean that college students have stopped hazing their peers. In a study where 434 college students were asked about whether they had heard about, experienced victimization, or committed acts identified as hazing, Owen, Burke, and Vichesky (2008), reported that 67.3% of them had witnessed organizational harassment and 46.8% had witnessed harm to self or others. Therefore, it is important to understand whether students are aware of what hazing constitutes and the potential risks of being criminally charged and prosecuted that this behavior entails.

Ellsworth (2006) showed that college students from different organizations (fraternity, sorority, athletes, NCAA, ROTC, and marching band members) were successful in identifying several activities as hazing acts. Among these were forced consumption of alcohol, striking someone with an object, handcuffing someone to a building or structure, giving someone a brand or tattoo, drinking or eating substances not intended for human consumption, depriving people of beverages or food, performing

sexual acts, participating in streaking or other activities while naked, depriving someone of sleep, and stealing items.

The fact that students are aware that several acts qualify as hazing, however, only raises the question of why they go through with them. One way of examining this is to study attitudes of students towards pledging and their organizations. Drout and Corsoro (2003) examined this question on a sample of 231 college students by giving them a hypothetical scenario in which an induction ended up in alcohol overdose of a student. The results showed that sorority and non-Greek students tended to blame commitment to the initiation and obligation to the organization for the incident. However, fraternity students did not find the previously mentioned factors to be the cause of the overdose. Therefore, there may be a difference between males and females, who belong to Greek-letter organizations, in the attachment level they feel toward campus organizations to which they belong.

There are also authors, such as Cimino (2011), who view hazing as an activity that serves the purpose of strengthening the group by allowing admission to only those who show the greatest commitment and share the same ideals as the rest of its members. In his study, Cimino (2011) assigned college students to four groups: ice walkers, aid workers, bug watchers, and audiophiles. The first two groups required more cooperation among members, involved dangerous tasks, and allowed individuals to obtain more benefits from membership. Participants were asked to assign the level of stress acceptable for an induction of new members to these groups. Overall, the results showed that participants believed that new members who wanted admission into the first two groups, which required more cooperation for arduous tasks and brought more benefits to

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members, should go through more stressful initiations. These participants associated a higher stress to proving the initiates' commitment and ability to contribute to the group.

Keating et al. (2005) conducted a survey and two experiments with college students to test the theory that threatening initiation rituals function to support and maintain groups. Under this theory, hazing can help the group by promoting group relevant skills and attitudes, reinforcing the group status hierarchy, and stimulating cognitive, behavioral, and affective forms of social dependence in group members. Furthermore, groups can benefit from hazing by means of maltreatment which produces uncertainty, emotional extremes, and stress in victims. This leads to more affective and affiliative behavior towards the group by the person being hazed. Keating et al. (2005) also showed that members of athletic groups reported more physical challenge and pain while Greek letter organization members reported more embarrassment and social deviance during initiations. Furthermore, when there was more perceived hierarchy in the organization there was more social deviance in the initiation. Lastly, harsh initiations were associated with more perceptions of group importance to the individual.

Even though initiations might serve utilitarian functions, this does not mean that all of its forms can be classified as non-aberrant behavior. This is especially true since the range of initiation activities that are conducted by different student organizations can vary a great deal in the amount of effort, risk, and potential consequences for the inductee. For this reason, some studies have addressed the different characteristics of people who engage in hazing. For example, Owen, Burke, and Vichesky (2008) surveyed college students who participated in initiations and their results showed that 46.5% of students reported having committed relatively harmless organizational harassment (e.g., requiring

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inductees to run errands, wear unusual clothing, blindfolding, perform calisthenics, eat strange food, and others), but 22.2% reported harming others (e.g., forcing members to consume alcohol, to be tied up, to be deprived of sleep, to use illegal drugs, be paddled, and others). This proportion is consistent with studies showing that most criminal activity is largely generated by a small number of offenders (Owen et al., 2008).

Furthermore, Montague et al. (2008) were able to identify two types of people who engage in hazing. The first category identified is the "teacher," who is someone that thinks of himself as having knowledge about the organization that needs to be passed on but who may also violate rules from time to time. A second category is the "fool," who is someone that does not use common sense when exerting power and who often has self-esteem and drug problems. This latter category was highly associated with hazing incidents. For these reasons, it becomes relevant to study the small segment of the population of college students who may exhibit abnormal personality traits and tendencies. Therefore, the next step in discerning the nature of hazing perpetration is to review important personality traits associated with anti-social behaviors.

<div align="center">The Dark Tetrad</div>

According to Kowalski (2001), of the personality traits associated with aversive behaviors in interpersonal relationships, the three which have been empirically studied the most are machiavellianism, narcissism, and psychopathy. Paulhus and Williams (2002) examined these three constructs and found that although they share a core of callous-manipulation, they are conceptually distinct. For this reason, both authors recommended their study and coined the term "Dark Triad of personality." Later on, it was also shown that sadism is relevant to this construct and it was added in order to

create what Chabrol, Leeuwen, Rodgers, and Sejourne (2009) called the "Dark Tetrad of Personality." The connotations of these personality traits and their relationship to anti-social behaviors are discussed in the following sections.

<u>Psychopathy</u>

Psychopathy was originally described as "a constellation of interpersonal, affective, and behavioral personality traits that include a superficial and manipulative interpersonal style, a profound lack of empathy or remorse, frequent impulsivity and irresponsibility, and socially deviant behavior or antisociality" (Schaich Borg et al., 2013, p. 668). Additionally, people who score high in psychopathy often show a tendency towards criminal behavior while causing harm and misfortune to others (Juni, 2009). The relevance of these traits has been so great in the study of antisocial behavior that they have also been studied in non-clinical populations.

One such example is provided by Ragatz, Anderson, Fremouw, and Schwartz (2011), who researched psychopathic traits, criminal thinking patterns, and aggression style in a sample of college students who reported being either victims of bullying or having committed bullying acts during their last two years of high-school. This was accomplished through the use of the Levenson's Self-Report of Psychopathy Scale which measures psychopathic traits within a non-forensic population. The results showed that participants who were victims of bullying, and who later became bullies themselves, scored higher for psychopathic traits such as carelessness, self-centeredness, tendency to manipulate others, and irresponsibility.

Studies like these represent an important step in the investigation of criminal behavior because they let us assess the relevance of psychopathic traits in populations

that would otherwise have been overlooked. Salihovic, Özdemir, and Kerr (2013) assessed teenagers in a longitudinal study and concluded that although most of them eventually showed a reduction in psychopathy scores as the years progressed, there was a subgroup for which these scores did not decrease as fast. Therefore, it can be concluded that although teenagers who score high on psychopathic traits will eventually grow out of these behaviors, the rate at which this process takes place is not the same for everyone.

Usually, psychopathic traits are assessed using methods such as the Psychopathy Checklist-Revised (PCL-R) which focuses on interpersonal, affective, and antisocial aspects of psychopathy (Hare & Neumann, 2006). However, according to Lilienfeld and Fowler (2006), these tools present limitations because of the inappropriateness of their questions and extensive time required for implementation in non-criminal samples such as college students. Therefore, other methods must be used for analyzing these traits which will be more convenient for the researcher and participants.

Fortunately, such methods have been developed and are currently being successfully implemented. Ragatz et al. (2011) presents an example through the use of the Levenson Primary and Secondary Psychopathy Scales (LSRP), which is a self-report measure that has been shown to possess moderate correlations with the PCL-R. This is beneficial because it allows for the evaluation of college samples in a more convenient way. Additionally, a study of non-criminal samples using self-reports for psychopathic traits by Andershed, Gustafson, Kerr, and Stattin (2002) revealed that these methods can be used to identify early problem-behavior in adolescents. Through an assessment of a large sample, 1279 eighth grade students with a mean age of 14.42 years, these authors found that the number of times these individuals engaged in property offences, violent

offences, vandalism, use of illegal drugs, and alcohol intoxication, among others, were correlated to scores in psychopathy-like traits.

Finally, it is also important to note that although self-report scales for psychopathy are relatively new, studies assessing the correlations of these with older and more established scales continue to be carried out. One such example is the analysis and comparison of the Inventory of Callous-Unemotional Traits, a self-report scale, with the PCL-R and two other self-report scales, the LSRP and the Psychopathic Personality Inventory Revised (PPI-R) on a sample of 687 college students done by Kimonis et al. (2013).

Psychopathic traits can be a very important aspect of the study of non-criminal populations and their anti-social behavior. The fact that callous-manipulation can interact with recklessness, and impulsive traits in the psychopathic individual (Jones & Paulhus, 2014), makes it a personality trait that might influence motivation to haze people. Furthermore, it is possible that submitting newcomers to physical and psychological stress is a means for showing hierarchy (Keating et al., 2005) and manipulating victims of special interest for people scoring high in psychopathy. This could happen because the psychopath is interested in personal gain without any regard for the victim.

Narcissism

Research into subclinical narcissism originated with a study by Raskin and Hall (1979), who created an inventory based on criteria for classification of the disorder given by the DSM-III. The resulting construct defined the narcissistic person as someone with an elevated sense of grandiosity, entitlement, dominance, and superiority. These

characteristics are very similar to their clinical counterpart and only differ in their magnitude in the non-clinical populations.

The subclinical narcissist is characterized by a constant need for ego-reinforcement (Morf & Rhodewalt, 2001), which leads to an almost interminable quest for recognition by others, and this in turn, can often result in the occurrence of self-destructive behaviors (Vazire & Funder, 2006). It is important to mention, however, that the cognitive processes that lead narcissists to act in this way have been found to be self-deceptive. In other words, these individuals believe their own false claims when it can be verified that they are exaggerating their own qualities and capabilities (Paulhus & Williams, 2002).

Further studies have found narcissism to be a multidimensional construct with two factors. The first one is the maladaptive factor, which is characterized by entitlement, exhibitionism, and exploitativeness; and the second is an adaptive factor, characterized by leadership, superiority, and self-sufficiency (Barry, Frick, Adler, & Grafeman, 2007). It is the maladaptive aspect of narcissism, which is of interest for this study because it has been associated with aversive behaviors such as delinquency and aggression (Barry et al., 2007). Indeed, it has been shown that when their grandiose self-image is put into question or threatened, a narcissistic person is likely to respond with proactive aggression as a mechanism to protect a fragile self-esteem (Washburn et al., 2004).

Another interesting finding about narcissists is that they tend to see themselves as good leaders (Furtner, Rauthmann, & Sachse, 2011; Zuroff, Fournier, Patall, & Leybman, 2010). Therefore, college students scoring high in sub-clinical narcissism could potentially see themselves as a figure of authority in an organization. Since these people

want to maintain that image of themselves, and because they possess callous-unemotional

traits, they may be capable of hazing newcomers more severely. Unlike individuals

scoring high in psychopathy and machiavellianism, narcissists could haze others not

because they are seeking personal gain but because they feel threatened by what they

believe is expected of them during an initiation.

Machiavellianism

Christie and Geis (1970) identified aspects of social behavior present in some

individuals, which involve a disposition to exploit and manipulate others for self-

interests. People exhibiting these machiavellian traits are quite cynical. They exhibit

qualities necessary for a leader to maintain political control according to Machiavelli in

his famous 1513 book *The Prince*. Furthermore, this personality translates into a lack of

conventional morality, a belief that people are untrustworthy and weak, the use of

antisocial tactics, emotional detachment, and a focus on achieving personal goals.

Recent studies have revealed that people who score high in machiavellian traits

report that power, money, and competition are high priorities (Stewart & Stewart, 2006).

In contrast, self-love, community building, and family concerns, are a low priority for

these individuals (McHoskey, 1999). Of particular interest is the fact that machiavellians

have been shown to possess a belief in winning and achievement at any cost (Ryckman,

Thorton, & Butler, 1994).

Even though people exhibiting machiavellian traits show these aversive

characteristics, it has been revealed that younger machiavellians can be perceived by

others as well adjusted and are even liked by their peers (Hawley, 2003). Furthermore,

these individuals can be preferred as leaders when they become adults (Coie, Dodge, &

Kupersmidt, 1990). Therefore, it would not be surprising to find that some of the college students in positions of power in fraternities, athletics, and other special interest organizations, score higher in machiavellian traits.

The approval that some of these machiavellians receive, could be explained, in part, by the manipulation tactics they employ in order to control the impression others have about them. Some of these tactics used by machiavellians include supplication (attempting to be seen as helpless), and intimidation (use of threatening behaviors) (Jones & Paulhus, 2009). Indeed, these qualities can make machiavellians quite capable of achieving their goals and being socially successful.

Lying and cheating have also been found to be common behaviors of machiavellian individuals. In a study where participants kept daily diaries, it was found that those who scored higher in machiavellianism reported telling more lies (Kashy & DePaulo, 1996). These individuals have also shown lower intention of keeping their word on deals made by them (Forgas, 1998), and it has also been reported that they are more likely to abstain from revealing information that could potentially have a negative economic impact for them (Sakalaki, Richardson, & Thepaut, 2007). Studies on the cheating behaviors of machiavellians have revealed that they are more likely to behave this way if the chances of being caught or of retaliation are low (Fehr, Samsom, & Paulhus, 1992). Furthermore, Jones and Paulhus (2009) have shown that machiavellians will not report any antisocial behavior if they expect that the information might be used against them by the authorities.

On aggression and hostility, studies using self-reports have shown that these behaviors tend to have only a small positive correlation with machiavellianism (Fehr et

al., 1992). However, it could be that machiavellians are reporting aggression and hostility only under certain circumstances, such as in completely anonymous studies (Locke & Christensen, 2007). Some of the observed positive correlations related to hostility include greater willingness to coerce employees (Corzine & Hozier, 2005), higher verbal aggression (Martin, Anderson, & Thweatt, 1998), and higher occurrence of bullying (Andreou, 2000).

The characteristic of manipulating others in order to achieve personal goals might explain why machiavellians could potentially haze newcomers more severely. By employing aggression during initiations, not only is a sense of hierarchy conveyed (Keating et al., 2005) but also long-term benefits may be achieved since individuals accepted into the group will probably be subordinate to the machiavellian person. This capability of planning for the future separates the machiavellian from the psychopath (Paulhus, 2014) and makes the former a better candidate for committing severe hazing.

Sadism

Sadistic personality disorder, as it appeared in the DSM-III (American Psychiatric Association, 1987) was characterized by a distinct pattern of enjoyment of aggression, cruelty and demeaning behavior directed toward others. Although the disorder was removed from later versions of the DSM, it has been continuously studied, mostly in criminal populations and those exhibiting sexual fetishes (Fedoroff, 2008; Nitschke, Osterheider, & Mokros, 2009). On the other hand, few studies have been found on non-offender populations (Chabrol et al., 2009), however, those that have been published report interesting results regarding the rates of occurrence for sadism traits. Indeed, it has been observed that, in a sample of college students, up to 5.7% showed

qualifying criteria for sadistic personality disorder (Coolidge et al., 2001). Furthermore, in another sample of 407 undergraduate college students, 6.9% reported considering themselves as sadistic while 5.6% declared that they enjoy hurting others (O'Meara, Davies, & Barnes-Holmes, 2004).

Among the most relevant findings related to sadism and anti-social behaviors, it has been found that murder has been associated with pleasure in individuals who score high in sadistic traits and it can be especially gratifying when the act is performed in direct physical contact with the victim (Taylor, 2009). Additionally, acts of aggression, which can occur as a consequence of provocation or as a form of revenge in an average individual, can act as a way of reinforcing a desire for cruelty in sadists (Taylor, 2009). Because of this, these individuals can aggress without any additional causes and will often hurt innocent people (Baumeister & Campbell, 1999). Experiments demonstrating this phenomenon include those in which participants high in sadistic traits, who had not been provoked, made other people listen to increasing levels of discomforting white noise (Reidy, Zeichner, & Seibert, 2011).

A study assessing college students revealed that individuals scoring high on sadism chose to kill bugs rather than do other unpleasant tasks such as cleaning dirty toilets or enduring pain from holding their hands in ice water. Furthermore, these same individuals also reported the highest levels of satisfaction from killing bugs (Buckels, Jones, & Paulhus, 2013). Furthermore, Chabrol et al. (2009) have shown that sadism is also another important predictor of aversive and delinquent behavior, independent of the dark triad personality traits. Due to the unique characteristics of sadism, this personality has been studied together with the other personalities of the dark triad on sub-clinical

populations. This research has shown that "everyday sadists" can be differentiated from people scoring high in other dark traits by their need to observe or inflict suffering to people (Paulhus, 2014).

The previously mentioned qualities make this personality trait of special interest in the study of hazing behaviors. Since sadists obtain pleasure from hurting others, initiations can offer an opportunity for these individuals to satisfy their cravings by submitting newcomers to acts of violence and humiliation which are sanctioned by the group. Consequently, the sadist is one of the types of dark personality most likely to inflict severe hazing.

Relationship among the Dark Tetrad Personality Traits

In comparison to psychopathy and narcissism, the machiavellian person is less impulsive and therefore more likely to use strategy and more covert and less severe tactics. However, according to Lau and Marsee (2013), machiavellians are as likely to engage in antisocial behavior characteristic of psychopathy, and narcissistic traits since all exhibit callous-unemotional traits. Indeed, it is this lack of empathy which has been proposed as the main core common to all the members of the dark tetrad (Paulhus, 2014). However, there are some key differences that characterize each personality trait which are important to emphasize.

When examining the personality traits in the dark triad, Jones and Paulhus (2011) found that the main differences are that narcissistic behavior is characterized by ego-enhancing goals whereas instrumental goals underlie the behavior of Machiavellian and psychopathic individuals. Additionally, psychopathy has an immediate focus whereas machiavellianism has a long-term focus, and all dark triad traits have a callous core

which can explain part of the manipulative behaviors shown in them. Finally, sadism is characterized by enjoying the pain of others although there is less impulsivity and manipulation involved (Buckels et al., 2013). Because of these differences, it may be possible that not all of these personality types intend to haze with equal severity.

<div align="center">Social Dominance Orientation</div>

Among the explanations of the interactions found among different groups, Social Dominance Theory (SDT) stands out for its relevance. According to Sidanius, Pratto, Martin, and Stallworth (1991), SDT can explain interactions between social systems by maintaining that there is a tendency for distinct groups to form hierarchies in which an in-group and out-group are identified. SDT also gives us a way of assessing how attitudes towards out-groups affect the evaluations and behaviors individuals can have towards them through the Social Dominance Orientation (SDO) construct.

SDO has been defined as the desire for people to have their in-group deemed better, superior, and dominant over other out-groups (Sidanius, 1993). The endorsing of these intergroup hierarchies can result from a tough-minded personality and competitive worldview (Duckitt, 2005), and can include negative stereotyping towards out-groups, an internal attribution to out-group failures, and discrimination and violence towards members of out-groups (Sidanius, Pratto, & Mitchell, 1994). Furthermore, SDO has been associated with a preference for aggression and punishment of low-status group members (Glenn et al., 2009).

Furthermore, SDO has been associated with different attitudes towards real-world groups which involve racism, sexism, political conservatism, opposition to interracial marriage, support for military intervention, and others (Pratto, Sidanius, Stallworth, &

Malle, 1994). However, it has also been shown that different intergroup social behaviors and attitudes can be inferred through the use of SDO in hypothetical scenarios where in-groups and out-groups are defined as cognitive constructs with little context and lacking tangible reality (Sidanius et al., 1994).

Individuals scoring high in SDO might also show some of the dark personality traits because dominance attitudes can be reflections of an aversive nature. Callous-affect, present in the dark tetrad, has been thought to contribute to biases against out-groups (Hodson et al. 2009); and meanness, a possible correlate to psychopathy, has been related to SDO (Altemeyer, 2004). Machiavellianism has been correlated with SDO (Carnahan & McFarland, 2007), which can be partially explained by associations between low empathy, out-group bias, and prejudice (Batson et al., 1997). Finally, narcissists, which are self-focused by definition, also show negativity towards people from other groups as shown in the correlation of the narcissistic trait with SDO (Carnahan &McFarland, 2007). Sadism has not yet been studied in relation to SDO. However, because it is correlated with the other traits of the dark tetrad, a significant positive correlation can be expected.

Glenn et al. (2009) reported that SDO has a mediating effect on the relationship between psychopathy and moral judgment regarding in-group loyalty that can lead to altruistic behavior toward one's own group members. These authors proposed as a possible explanation for this phenomenon that individuals scoring higher in psychopathic traits may exhibit more hostility toward members of other groups, and less tolerance for individuals who betray the group. Hodson et al. (2009) reported a mediating effect of SDO between dark personalities and intergroup threat (which predicted prejudice).

Because of the relationship that SDO has been shown to have with aggression, discrimination, and punishment of members of a group with a low status, it is possible for it to be associated with hazing. Specifically, it could be possible that dark personalities affect the views that college students have in regards to groups other than their fraternity, sorority, club, or any other group with which they identify. Additionally, it has been argued that cultural socialization practices, characterized by punitive and strict social norms, can lead to the creation of a worldview full of social conflict and ethnocentrism (Ross, 1993). Consequently, the socialization practices reflected in SDO might allow it to act as a mediator in explaining the relationship between dark personalities and hazing behaviors.

Purpose of the Current Study

As previously discussed, current research has proposed several reasons for the phenomenon of hazing. For example, Keating et al. (2005) have shown that hazing can have a purpose of conveying hierarchy to new members and promoting social dependency. In addition, Cimino (2013) argues that hazing is done to avoid exploitation of group benefits by new members, which causes members of more cooperative groups to haze more severely. However, there have been no studies on the possible influence of the dark tetrad of personality and SDO on hazing motivation.

Although research on the influence of dark personality traits on hazing is scarce, there is evidence to suggest that the dark tetrad can play an important role in determining who will behave in a more criminal way (i.e., demand more severe hazing conditions from new members) and who will not approve of such behavior. Therefore, using the existing information from past literature, a few hypotheses can be proposed.

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First, individuals who score high on dark personality traits will show a higher desire to haze severely compared to individuals who score lower in these traits. Second, a high score in dark personality traits will predict a higher Social Dominance Orientation. Third, SDO will predict a higher inclination to haze severely. Fourth, dark personality traits and SDO will interact in predicting higher inclination to haze severely. Finally, since gender, organization type, and contribution to the group are important in predicting hazing behaviors, a fifth hypothesis is that men who contribute more and belong to groups that are highly cooperative will exhibit greater desire for severe hazing activities compared to females.

This study is important because it adds to the knowledge concerning how dark personality traits can be measured within non-criminal populations. Furthermore, it proposes an alternative mechanism for explaining hazing behaviors considering the influence of social attitudes and personality. If these variables prove to significantly influence the desire for harsh hazing, then existing models considering hazing as a natural process may benefit. This would occur because, for the most part, previous theories have explained hazing only in the context of strategies for obtaining improved group performance, cooperation, and respect for hierarchy. However, there might be a subgroup of individuals who take advantage of these group processes to satisfy their personal needs through the commitment of aggressive antisocial behaviors.

CHAPTER 2

METHOD

Participants

The participants for this study were 439 undergraduate students enrolled in psychology classes at Texas State University who were recruited via the Human Subjects Pool webpage created by its Department of Psychology. After excluding cases with incomplete data, the sample was reduced to 416. All participants received extra credit as compensation for their voluntary help in the study. As shown in Table 1, the sample was comprised of 30.3% males and 69.7% females with a mean age of 19.24. Furthermore, the ethnicities reported were whites (49.8%), Hispanic (32.2%), African Americans (13.7%), Asian (1.9%), Native American (0.5%), and other (1.9%). Also included in this table is the sample distribution according to college classification.

Table 1
Age, gender, ethnicity, and college classification

	Full Sample (n=416)
Age	M = 19.24 (SD = 1.50)
Gender	
Male	30.3% (n = 126)
Female	69.7% (n = 290)
Ethnicity	
White	49.8% (n = 207)
Hispanic/Latino	32.2% (n = 134)
African American	13.7% (n = 57)
Asian	1.9% (n = 8)
Native-American	0.5% (n = 2)
Other	1.9% (n = 8)
College Classification	
Freshman	49.5% (n = 206)
Sophomore	33.2% (n = 138)
Junior	11.3% (n = 47)
Senior	6.0% (n = 25)

In addition, 64.3% (n=266) of the sample claimed to feel attachment to a campus organization. Table 2 shows the frequency distributions for these organizations available at Texas State University.

Table 2
Affiliation to campus organizations

	Full Sample (n=416)
Athletic Team	11.1% (n = 46)
Honor Society/Fraternity	2.4% (n = 10)
Professional Society/Fraternity	3.4% (n = 14)
Social Society/Fraternity	10.8% (n = 45)
Music or Performance Organization	4.6% (n = 19)
Religious Organization or Campus Ministry	7.9% (n = 33)
Special Interest Club or Organization	12.7% (n = 53)
Other	11.3% (n = 47)
None	35.8% (n = 149)

Measures

Participants completed an online questionnaire with demographic questions similar to those asked to college students by Cimino (2013). Data was collected on gender, age, ethnicity, academic year, and college organization with which the participants identified the most (Appendix A). Other questionnaires included the *Predictors of Hazing Motivation Questionnaire* (Cimino, 2013), the *Social Dominance Orientation Scale* (SDO-6; Pratto, Sidanius, Stallworth, & Malle, 1994), the *Short Dark Triad* (SD3; Jones & Paulhus, 2014), and the *Short Sadistic Impulse Scale* (SSIS; O'Meara, Davies, & Hammond, 2011b).

The Predictors of Hazing Motivation Questionnaire includes nine statements, measured on a 7-point Likert scale, which proposes scenarios for assigning stress to individuals undergoing hypothetical initiation scenarios (Appendix B). Example items include "As a member of the Ice Walkers, you have a say in whether the initiation will

have a pleasant component, and if so, how pleasant will it be?" and "Finally, as an Ice Walker, you have a say in whether the group should pressure all new members to complete the initiation, and if so, to what extent?"

The SDO-6 includes 16 statements, evaluated on a 7-point Likert scale (rated from very negative to very positive), which evaluate a person's attitudes toward inequalities and hierarchies between groups (Appendix C). Example items include, "To get ahead in life, it is sometimes necessary to step on other groups" and "we would have fewer problems if we treated people more equally". Cronbach's alpha for this scale is .81 (Pratto, 1999).

The SD3 includes 27 statements, evaluated on a 5-point Likert scale (rated from disagree strongly to agree strongly). The 27 statements are divided into three groups of nine in order to assess narcissism, Machiavellianism, and psychopathic personality traits (Appendix D). Example items include "I know that I am special because everyone keeps telling me so" for narcissism, "you should wait for the right time to get back at people" for Machiavellianism, and "people who mess with me always regret it" for psychopathy. Alpha reliabilities for the SD3 subscale are .71 for narcissism, .77 for Machiavellianism, and .80 for psychopathy (Jones & Paulhus, 2014).

The SSIS consists of 10 statements which are responded in a dichotomous form by selecting answer categories "like me" and "unlike me" (Appendix E). The purpose of the scale is to assess sadistic tendencies which can manifest themselves in different ways in individuals. Example items include "I have hurt people for my own enjoyment" and "I have humiliated others to keep them in line." The alpha for internal consistency of the SSIS is .86 (O'meara, Davies, & Hammond, 2011b).

Design and Procedure

College students were invited to participate in this study in order to obtain extra
credit in an introductory psychology course. These students accessed an online survey via
a link provided by the Human Subjects Pool webpage created by the Department of
Psychology of Texas State University. Once they accessed the survey, created using
Qualtrics, students were able to read a consent form which explained the purpose of the
study, had examples of the items involved, and gave information regarding the
participants' rights, benefits and risks involved, as well as contact information of the
researcher (Appendix F).

Once the participants agreed to the conditions of the study, they answered
questions from the demographics questionnaire. Then, they were randomly assigned to
one of four conditions. In each of these conditions the participants read about different
scenarios which asked them to imagine themselves as members of a group admitting new
members through an initiation. The scenarios varied according to the level of cooperation
of the group and also the level of personal contribution they could have in that group. The
level of group cooperation was either "high" if the group was composed of ice-walkers
who engaged in dangerous exploration activities in cold regions, or "low" if the group
was composed of bug-watchers who engaged in the observation and study of insects. The
level of personal contribution was also divided into two levels: high or low, which were
described to the participants as the amount of work, involvement, and joy obtained from
participating in the group. Once the participants read the scenario, which is part of the
Predictors of Hazing Motivation Questionnaire, they proceeded to answer its questions
along with others from the SDO-6, SD3, and SSIS.

This study can be classified as an experiment because participants were assigned randomly to one of four conditions: "High" or "Low" in the group cooperativeness condition and "High" or "Low" for individual contribution to the group condition. The dependent variable was desired hazing. Individual difference variables were psychopathy, narcissism, machiavellianism, sadism, social dominance orientation. All the independent variables in the study were between-subjects variables because the participants were tested only once regardless of the group to which they were assigned. Gender, group cooperation, and individual contribution to the group were also assessed as possible covariates. All analyses were conducted using SPSS version 22 and the probability of Type I error was set at $p = .05$.

CHAPTER 3

RESULTS

Independent samples t-tests were conducted comparing males and females in psychopathy, machiavellianism, narcissism, sadism, social dominance orientation, and desired hazing. As shown in Table 3, the results of these independent samples t-tests revealed that there was a significant difference between males and females for all the variables observed at $p<.01$.

Table 3
Differences by gender

	Male M (SD)	Female M (SD)	p
Machiavellianism	3.36 (0.57)	3.11 (0.54)	.000
Narcissism	3.24 (0.50)	3.09 (0.52)	.005
Psychopathy	2.31 (0.63)	1.93 (0.57)	.000
Sadism	0.30 (0.23)	0.22 (0.21)	.001
Social Dominance Orientation	3.27 (0.82)	2.85 (0.90)	.000
Desired Hazing	3.55 (1.60)	3.00 (1.51)	.001

A 2x2 factorial ANOVA was conducted in order to examine differences within the levels of gender and group cooperation given by desired hazing. For gender, males had higher desired hazing scores, $M = 3.53$, compared to females, $M = 3.01$, with a mean difference of *Mdiff*= .528, p=.001. For group cooperation, those in the strong cooperation category had higher desired hazing scores, $M= 3.59$, compared to those in the weak cooperation category, $M= 2.95$, with a mean difference of *Mdiff*= .635, $p<.001$. The interaction of gender and group cooperation was not statistically significant, $p>.05$.

Furthermore, a one-way ANOVA was conducted to compare differences in desired hazing among the different types of organizations with which students identified

the most. These results are shown in Figure 1. For the 266 participants who identified

themselves with an organization, there was a significant effect of organization affiliation

on desired hazing at the $p < .05$ level, $F(7, 259) = 2.18$, $p = .036$.
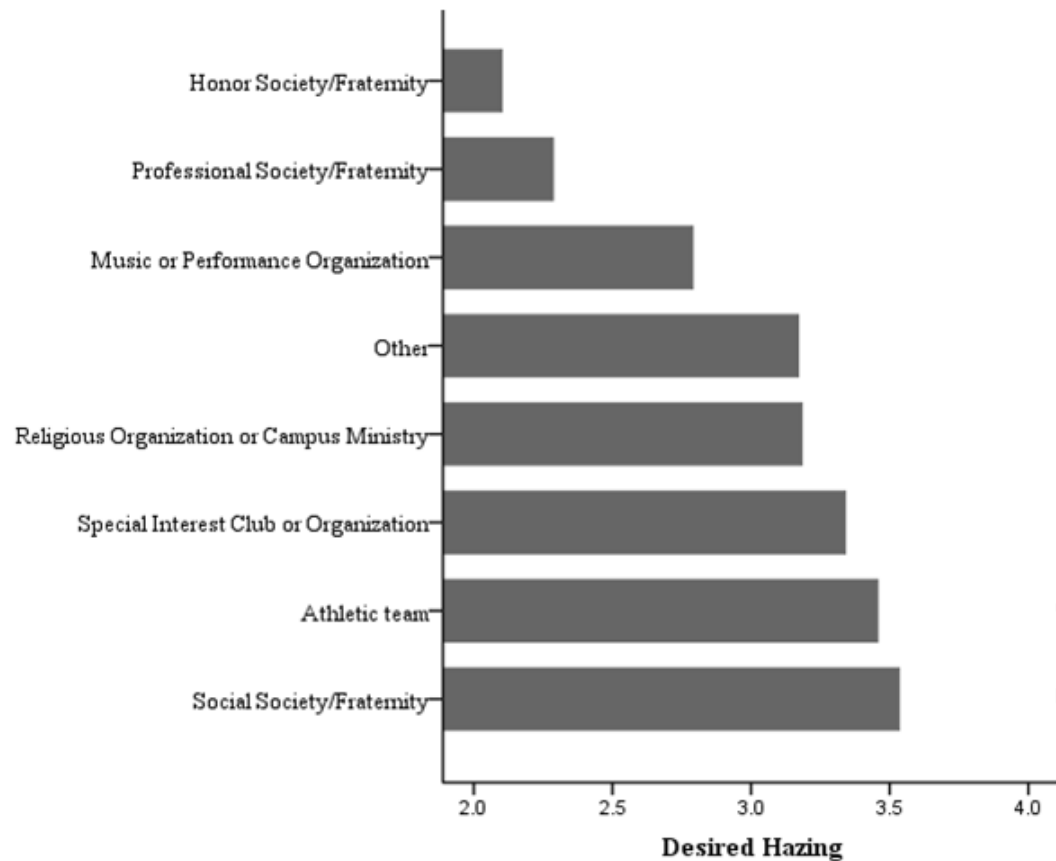
Figure 1. Desired level of hazing according to campus organization.
Individuals identifying themselves with social societies/fraternities desired hazing the
most whereas those who identified with honor societies/fraternities desired hazing the
least.

Additional Post hoc comparisons using the Tukey LSD test indicated that the

mean score of the Honor Society/Fraternity ($M = 2.10$, $SD = .568$) was significantly

different from the mean scores of the Social Society/Fraternity ($M = 3.53$, $SD = 1.995$), p

$= .008$, the Athletic Team ($M = 3.46$, $SD = 1.545$), $p = .012$, and the Special Interest

Club/Organization ($M = 3.34$, $SD = 1.544$), $p = .02$. Finally, the Post hoc analyses also

showed that the Professional Society/Fraternity mean score *(M* = 2.29, *SD* = 1.204) was

significantly different from the mean scores of the Athletic Team (*M* = 3.46, *SD* = 1.545),

p = .013, the Social Society/Fraternity (*M*= 3.53, *SD* = 1.995), *p* = .009, and the Special

Interest Club/Organization (*M* = 3.34, *SD* = 1.544), *p* = .023.

The next step of the analysis, bivariate correlations among the variables, showed

that machiavellianism, sadism, social dominance orientation, and desired hazing were all

significantly correlated, *p* < .01. However, it was observed that narcissism only correlated

with desired hazing at *p* = .024 and the correlation between psychopathy and desired

hazing was not significant, *p* = .081. Furthermore, it should be noted that all the inter-

correlations observed between the variables were not large. The Pearson coefficients for

every correlation can be seen in Table 4.

Table 4
Correlations among measures

	1	2	3	4	5	6
1. Machiavellianism	_	.17**	.36**	.37**	.16**	.19**
2. Narcissism		_	.19**	.17**	.15**	.11*
3. Psychopathy			_	.38**	.35**	.08
4. Social Dominance Orientation				_	.29**	.15**
5. Sadism					_	.20**
6. Desired Hazing						_

Note. **p<.05 **p<.01*

<u>Mediating Effects of Social Dominance Orientation</u>

Given that gender and group cooperation levels showed significant differences

between their levels in their relation with the DV, desired hazing, these two variables

were controlled for in the regressions. Upon conducting initial regression analyses in

order to test whether the IVs predicted the DV, it was seen that psychopathy did not

significantly predict desired hazing, $p > .05$; the same was observed for narcissism, $p > .05$. For this reason, both variables were excluded from further analysis.

When assessing the possible role of SDO as a mediating variable in the relationship between machiavellianism and desired hazing, a regression was initially conducted to see if machiavellianism predicted desired hazing. After controlling for gender and group cooperation, machiavellianism explained 3.3% of the variance in desired hazing, $F_{change}(1, 412) = 15.161, p < .001$. Then, a hierarchical regression was conducted which found that SDO explained .9% of the variance in desired hazing after controlling for gender and group cooperation, $F_{change}(1, 412) = 4.179, p < .05$. Finally, Machiavellianism was added to the previous model in a third step where it was observed that it explained 2.5% of the variance in desired hazing after controlling for gender, group cooperation, and SDO, $F_{change}(1,411) = 11.437, p < .001$. As can be seen in Table 5, the contribution of machiavellianism in predicting desired hazing, remained significant after controlling for SDO, although it went down from 3.3% to 2.5%. However, because in the third model SDO becomes insignificant with $p= .448$, it cannot be said that SDO acts as a moderator in the relationship between machiavellianism and desired hazing.

Table 5

Mediating role of SDO between machiavellianism and desired hazing

	B	SE B	B	p	R^2	R^2 change	F change
Regression 1: Machiavellianism predicting Desired Hazing							
Step 1					.069	.069	15.264***
Gender	-.527	.161	-.155	.001			
Group Cooperation	.648	.148	.208	.000			
Step 2					.102	.033	15.161***
Machiavellianism	.518	.133	.186	.000			
Regression 2: Mediating role of SDO							
Step 1					.069	.069	15.264***
Gender	-.527	.161	-.155	.001			
Group Cooperation	.648	.148	.208	.000			
Step 2					.078	.009	4.179*
SDO	.173	.085	.100	.042			
Step 3					.103	.025	11.437**
Machiavellianism	.480	.142	.173	.001			
SDO	.068	.089	.039	.448			

Note. SDO, Social Dominance Orientation.

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

The next variable tested as a predictor of desired hazing was sadism. As seen in Table 5, sadism explained 3.1% of the variance after controlling for gender and group cooperation, $F_{change}(1, 412) = 14.090$, $p < .001$. SDO was then added into the model as a potential mediator and it was observed that after controlling for gender, group cooperation, and SDO, sadism explained 2.4% of the variance in desired hazing, $F_{change}(1, 411) = 11.106$, $p< .001$. Once again, the contribution of the IV, sadism, to the variance remained significant after controlling for SDO, going down from 3.1% to 2.4%. However, SDO became insignificant in the third model, $p = .257$, which makes it possible to conclude that SDO is not a moderator between sadism and desired hazing.

Table 6

Mediating role of SDO between sadism and desired hazing

	B	SE B	*B*	*p*	R^2	R^2 change	*F* change
Regression 1: Sadism predicting Desired Hazing							
Step 1					.069	.069	15.264
Gender	-.527	.161	-.155	.001			
Group Cooperation	.648	.148	.208	.000			
Step 2					.100	.031	14.090***
Sadism	1.252	.334	.178	.000			
Regression 2: Mediating role of SDO							
Step 1					.069	.069	15.264
Gender	-.527	.161	-.155	.001			
Group Cooperation	.648	.148	.208	.000			
Step 2					.078	.009	4.179*
SDO	.173	.085	.100	.042			
Step 3					.102	.024	11.106**
Sadism	1.150	.345	.164	.001			
SDO	.098	.087	.057	.257			

Note. SDO, Social Dominance Orientation.
*p<.05 **p<.01 ***p<.001

Moderating Effects of Machiavellianism and Sadism

Because the possibility existed that the interactions between machiavellianism and SDO, and between sadism and SDO, were significant, a moderator effect was considered. Therefore, an initial analysis of covariance was conducted to test the interaction between machiavellianism and SDO towards desired hazing while controlling for gender and group cooperation. ANCOVA results showed that the interaction between machiavellianism and SDO significantly influenced desired hazing $F(1, 410) = 4.530$, $p = .03$. The covariate of gender significantly influenced desired hazing $F(1, 410) = 6.754$, $p = .01$, and the same was true for the covariate of group cooperation $F(1, 410) = 18.699$, $p < .001$. These results suggest a significant moderator effect of machiavellianism in the relationship between SDO and desired hazing and can be seen in figure 2.
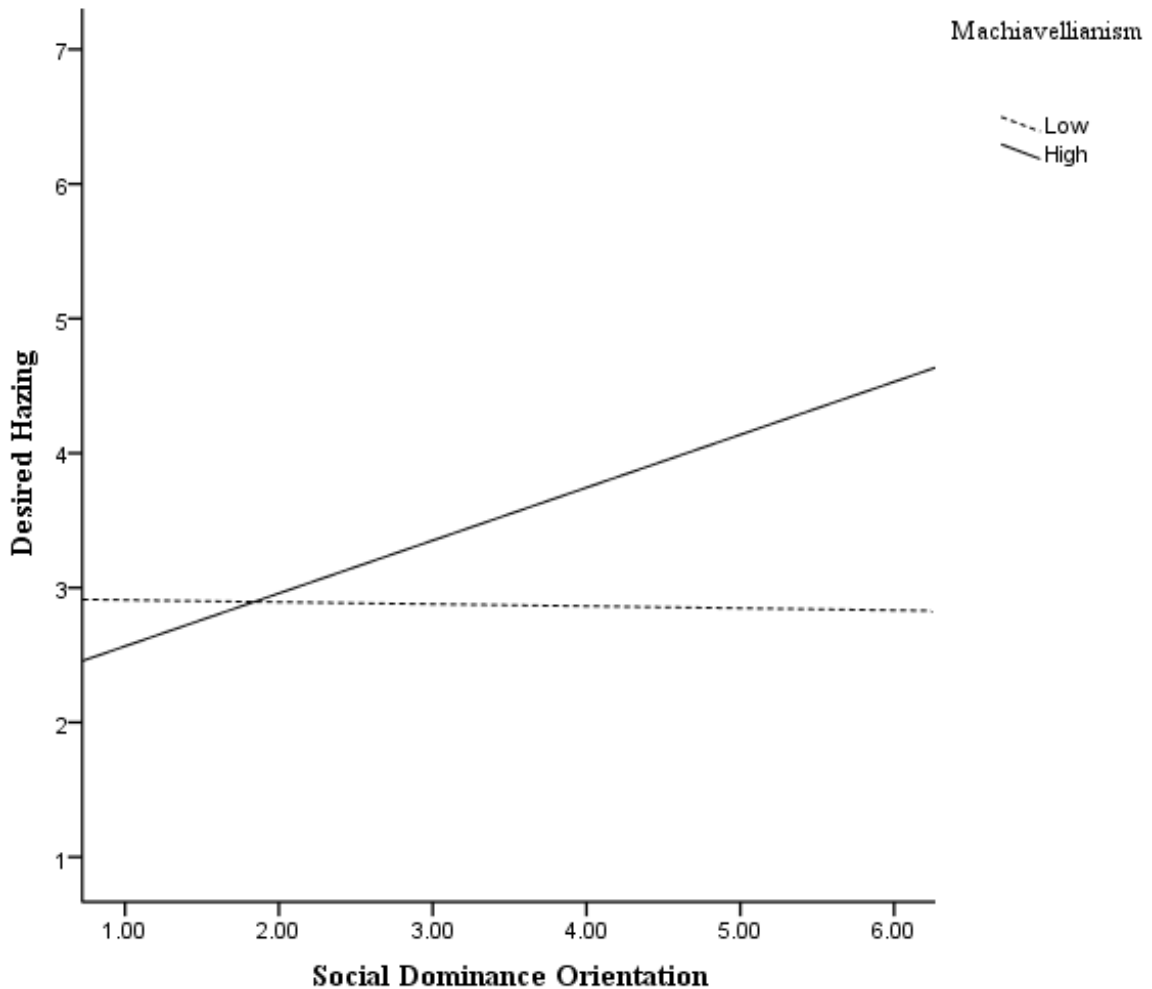
Figure 2. Moderator effect of machiavellianism.
The relation between SDO and desired hazing is moderated by machiavellianism

A second analysis of covariance was conducted to test the interaction between sadism and SDO towards desired hazing while controlling for gender and group cooperation. ANCOVA results showed that the interaction between sadism and SDO significantly influenced desires hazing $F(1, 410) = 8.452$, $p = .004$. The covariate of gender significantly influenced desired hazing $F(1, 410) = 5.765$, $p = .017$, and the same was true for the covariate of group cooperation $F(1, 410) = 18.421$, $p < .001$. These results suggest a significant moderator effect of sadism in the relationship between SDO and desired hazing and can be seen in figure 3.

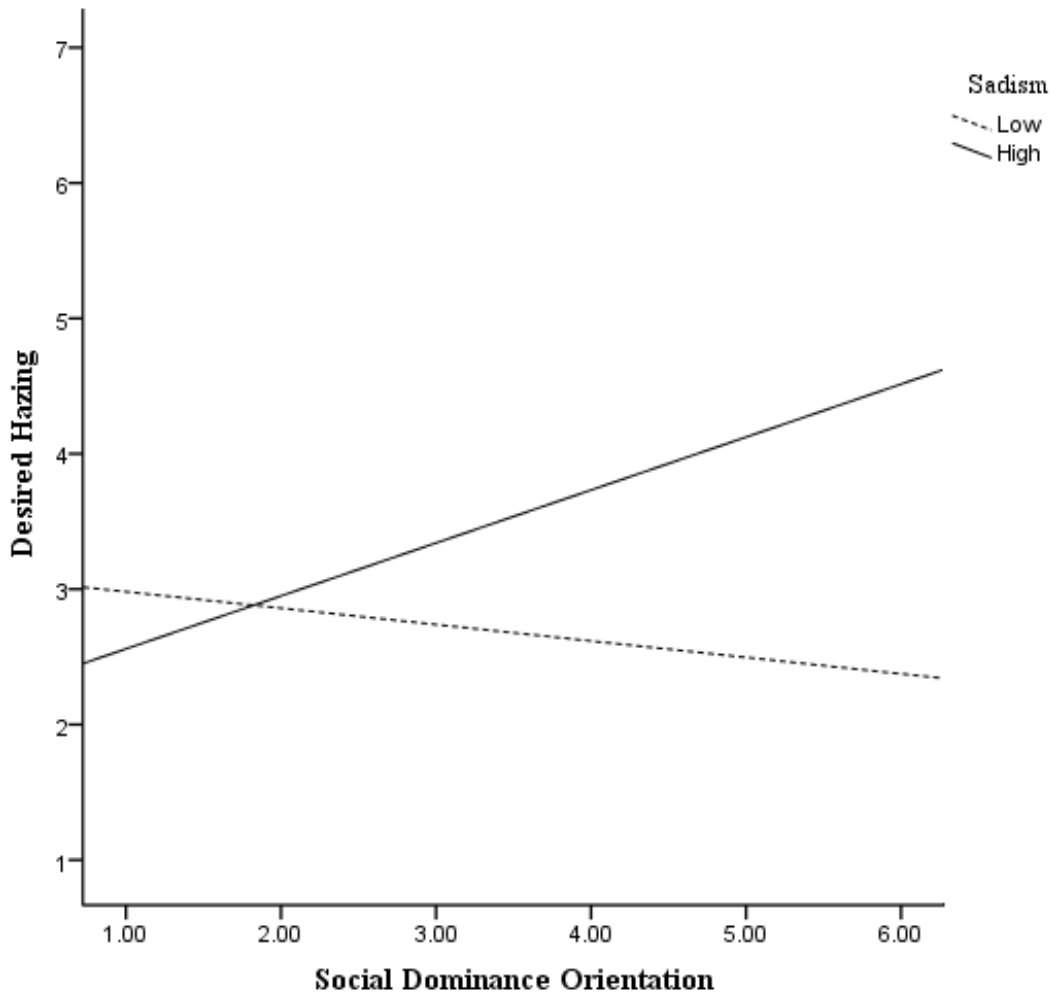**Figure 3. Moderator effect of sadism.**
The relation between SDO and desired hazing is moderated by sadism

CHAPTER 4

DISCUSSION

The present research was designed to study factors that possibly influence the level of hazing some college students may desire for their peers. Consistent with findings of Cimino(2013), Chabrol et al., (2009), Furnham, Richards, & Paulhus (2013), and Pula, McPherson, & Parks (2012), the present study found that males scored higher than females in hazing behaviors, dark personalities, and SDO. This supports the notion that special attention must be given to males when designing anti-hazing campaigns. Furthermore, it was also found that students who identified themselves with social fraternities and athletic clubs scored highest in desire for hazing, in contrast to honor and professional fraternities. This is in agreement with the findings of Cimino (2011) and Keating et al. (2005) who identified specific organizations as responsible for most hazing behaviors among college students.

Additionally, when assessing how the levels of personal contribution and the cooperation level of the organization influenced hazing, it was found that only organization cooperation was significant. This finding is consistent with Cimino (2013) who found that level of personal contribution did not contribute significant variance to hazing. Only when assessing its interaction with gender, was it observed that males in high-contribution groups desired more severe hazing. The similarity in these results indicates that initiations can act, at least partially, as a mechanism for selecting new members who will bring some benefit to the group and not just exploit its resources.

However, it was also found that a machiavellian personality predicted more severe hazing. Since machiavellians are defined by a more methodical approach to

antisocial behavior characterized by manipulation of others (Christie & Geis, 1970), it makes sense that college students who score high in this trait would be willing to haze others more severely as it is in their best interest to convey superiority to prospect members so they can be more easily manipulated and exploited. In addition, the act of hazing, as a requirement for membership by a recognized organization, gives the machiavellian an excuse for committing aggression and taking advantage of others covertly.

A high score in sadism also predicted more severe desired hazing. This finding is explained by the inherent quality of people with this personality trait to enjoy cruelty (Chabrol et al., 2009). Although this personality type may not necessarily be interested in manipulating others for personal gain, it shares a common core of callousness with all the other members of the dark tetrad (Paulhus, 2014). This callousness allows the sadist not to feel empathy for prospective group members undergoing an initiation even though they may build relationships with them in the future.

A surprising finding was that high scores in psychopathy did not significantly predict more severe desired hazing. Studies on hazing by Keating et al. (2005) concluded that one of its purposes is to show the group hierarchy to incoming members in order to facilitate cooperation. However, psychopaths are characterized by low dutifulness (Miller, Lynam, Widiger, & Leukefeld, 2001) and impulsivity in committing antisocial acts (Hare & Neumann, 2006) which could explain why these individuals do not see purpose of instructing newcomers since they do not get any immediate personal benefits from it. Therefore, it could be possible that students scoring high in psychopathy do not see the long-term benefits of demonstrating power over others and since they do not

particularly obtain pleasure from inflicting pain to others as sadists do, they are less likely to haze students severely.

Narcissism also was not found to significantly predict severe hazing behaviors; the observed p was equal to 0.53. A person high in narcissism is characterized by a sense of grandiosity, and most often becomes aggressive as a result of a hurt ego (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004). Therefore, it is possible that such individuals do not commit severe hazing because they do not feel threatened. Also, narcissistic individuals may stay away from overt aggression in order to maintain their social standing as likeable (Baughman, Dearing, Giammarco, & Vernon, 2012).

Another observation of this study was that SDO successfully predicted hazing behaviors. Although its mediating role in the relation between dark personality traits and hazing behaviors was not demonstrated, this could be because in-group bias is a default condition of interactions between groups (Mullen, Brown, & Smith, 1992). This means that since these attitudes exist universally, the presence of dark personality traits does not explain their enactment by different types of people. However, when assessing the influence of these personalities on the relation between SDO and hazing, it was found that machiavellianism and sadism act as moderators, which can be observed on figures 2 and 3. This is of great importance because it means that people who score high on machiavellianism and sadism will commit acts of severe hazing and simultaneously support attitudes of social dominance over students who do not belong to their fraternities, clubs, or other in-group organization. On the other hand, those who score low on machiavellianism and sadism may support SDO attitudes, however, this does not mean that they will commit behaviors of severe hazing.

Limitations and Future Directions

Although this study was successful in demonstrating the effects of different types of dark personalities on the relation between SDO and hazing behaviors, there were some limitations. First, the sample includes more females (69.7%) than males (30.3%). Although the effects of gender on desired hazing were controlled in this analysis, it would be important for future studies to place emphasis on males because they are at greater risk of showing dark personalities and committing severe hazing behaviors. Furthermore, even though whites and Hispanics were fairly well represented here, the other ethnicities were not. Therefore, it would be important for future studies to consider obtaining larger samples. This is also true for students who claim to feel attachment to a campus organization. In this study, a great portion of the sample, 35.8%, claimed no attachment to any campus organization. Because of this, future studies should consider obtaining samples that are more representative of all campus organizations.

Another limitation is that the present study did not include other variables that may affect the relation between machiavellianism, sadism, SDO, and hazing behaviors. Some examples could include alcohol consumption (Kingree, & Thompson, 2013) and peer pressure (Farrell, Kung, White, & Valois, 2000), which have been shown to elicit more aggression in adolescents and college students. Therefore, researchers could benefit from considering a more comprehensive model that includes dark personalities, group dynamics, social attitudes, and substance abuse in explaining hazing behaviors.

The implications of this study are important for the assessment and prevention of hazing behaviors. Since this is the first time that dark personalities have been studied in regard to hazing behaviors, further research will be necessary to replicate these results

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with other samples and perhaps different instruments. Furthermore, the results obtained here could mean that although SDO attitudes vary according to cultural socialization factors (Ross, 1993), people with machiavellian or sadistic tendencies will unequivocally support them. This could prove to be a great help for college counselors because new tools asking for these personality traits and social attitudes might be particularly useful in identify college students at risk for behaviors such as hazing.

APPENDIX SECTION

APPENDIX A: DEMOGRAPHIC INFORMATION

What is your gender? _____

What is your age? _____

Ethnicity (choose all that apply):

- o Native-American
- o Asian
- o African-American
- o Hispanic
- o White
- o Other:_____

Level of Education (please choose one):

- o High school
- o Freshman
- o Sophomore
- o Junior
- o Senior

Please choose the organization (if any) towards which you feel the highest level of affiliation.

- o Athletic team
- o Honor Society/Fraternity
- o Professional Society/Fraternity
- o Social Society/Fraternity
- o Music or Performance Organization
- o Religious Organization or Campus Ministry
- o Special Interest Club or Organization
- o None
- o Other

[Display]
In this study you will read a description of a group while imagining that you are a group member. You will then make a series of decisions about how to act within the group. Your decisions should be based on what you would do if you were actually a member.

Programming Note: Randomly assign R to one of the two groups, Ice Walkers or Bug Watchers (50% in each group).

Ice Walkers Survey

[Display]
You are in an all-**[male/female]** group called the "Ice Walkers." You are deep-snow skiers: specialists in arctic survival and high-altitude skiing. Every month, your group goes on an expedition. An Ice Walker expedition requires a helicopter trip to a remote location in the mountains. There, in the freezing wilderness, your life depends on your survival knowledge and the resourcefulness of your fellow group members. All of your activities require intense cooperation: you must hunt, climb, and carry vital supplies together.

Programming Note: Randomly select Low or High contribution condition. Please create a data-only variable indicating which condition was selected.

[Display for Low Contribution]
You work very little for the Ice Walkers, much less than other members. While you are with the group, you enjoy yourself, but you're not as motivated to help as other members. You avoid many Ice Walker expeditions and only go on those that suit your time schedule. When the group needs extra work to be done, you do not usually volunteer to do it.

[Display for High Contribution]
You work very hard for the Ice Walkers, much more than other members. While you are with the group, you enjoy yourself, and you try to help as much as possible. You make a point to attend every Ice Walker expedition, regardless of your other commitments in life. When the group needs extra work to be done, you are often the one who volunteers to do it.

[Grid – SP by Row]
IW1.   Being a member of a group takes time and energy. Describe the cost of your current level of participation in this group:

NO time or energy spent			MODERATE amounts of			HUGE amounts of time and

			time and energy spent			energy spent
0	1	2	3	4	5	6

[Display]

To join the Ice Walkers, a potential member must prove that **[he/she]** has all the necessary skills for arctic survival: skiing, hunting, climbing, etc. **[He/She]** must also show that he can get along with existing members. If potential members can do these things, they are allowed to join the group.

[Grid – SP by Row]

IW2.   Sometimes, just by being a member of a group, people are respected more. Do you think joining the Ice Walkers will bring new members more respect from outsiders? If so, how much?

NO additional respect from outsiders			MODERATE amounts of additional respect from outsiders			HUGE amounts of additional respect from outsiders
0	1	2	3	4	5	6

[Grid – SP by Row]

IW3.   Sometimes, just by being a member of a group, people are better off than they were alone. In other words, other group members will watch out for them and help them if they get into any kind of trouble. Do you think new members of the Ice Walkers can count on this sort of group assistance? If so, to what extent?

NO group assistance when they need help			MODERATE amounts of group assistance when they need help			HUGE amounts of group assistance when they need help
0	1	2	3	4	5	6

[Grid – SP by Row]

IW4.   Most people can improve their skills if they work hard. Sometimes people can even improve their skills without working hard, just by hanging around highly-skilled people and listening to them or watching what they do. Over the first few months of membership, do you think new members of the Ice Walkers will be able to improve their arctic survival skills in this way? If so, to what extent?

NO increase in skill from just watching			MODERATE increase in skill from just watching and listening			HUGE increase in skill from just watching

and listening						and listening
0	1	2	3	4	5	6

[Grid – SP by Row]

IW5.   After the first few months of membership are over, to what extent do you think new members will be able to further improve their arctic survival skills if they spend several years participating and working hard as a member?

NO increase in skill after several years of work			MODERATE increase in skill after several years of work			HUGE increase in skill after several years of work
0	1	2	3	4	5	6

[Display]

The Ice Walkers have recently decided to have an initiation when new members join the group.

[Grid – SP by Row]

IW6.   As a member of the Ice Walkers, you have a say in whether the initiation will have a pleasant component, and if so, how pleasant it will be.

NO pleasant component			MODERATELY pleasant component			EXTREMELY pleasant component
0	1	2	3	4	5	6

[Grid – SP by Row]

IW7.   You also have a say in whether the Ice Walker initiation will have a stressful component, and if so, how stressful it will be.

NO stressful component			MODERATELY stressful component			EXTREMELY stressful component
0	1	2	3	4	5	6

[Grid – SP by Row]

IW8.   Finally, as an Ice Walker, you have a say in whether the group should pressure all new members to complete the initiation, and if so, to what extent.

NO pressure			MODERATE pressure			EXTREME pressure
0	1	2	3	4	5	6

[Grid – SP by Row]

[Display]
You are in an all-**[male/female]** group called the "Bug Watchers." You are insect enthusiasts: individuals specializing in the study and collection of insects. Every month, your group meets to compare insect collections, organize trips to relevant museums, and discuss articles about insects. Bug Watcher members take turns presenting information on various insect species and commenting on the presentations of fellow members. All of your activities require an excellent knowledge of insects and a willingness to provide constructive criticism.

Programming Note: Randomly select Low or High contribution condition. Please create a data-only variable indicating which condition was selected.

[Display for LOW contribution]
You work very little for the Bug Watchers, much less than other members. While you are with the group, you enjoy yourself, but you're not as motivated to work as other members. You avoid many Bug Watcher group meetings and only go to those that suit your time schedule. When the group needs extra work to be done, you do not usually volunteer to do it.

[Display for HIGH contribution]
You work very hard for the Bug Watchers, much more than other members. While you are with the group, you enjoy yourself, and you try to do as much as possible. You make a point to attend every Bug Watcher meeting, regardless of your other commitments in life. When the group needs extra work to be done, you are often the one who volunteers to do it.

[Grid – SP by Row]
BW1.   Being a member of a group takes time and energy. Describe the cost of your current level of participation in this group:

NO time or energy spent			MODERATE amounts of time and energy spent			HUGE amounts of time and energy spent
0	1	2	3	4	5	6

[Display]
To join the Bug Watchers, a potential member must prove that **[he/she]** has all the necessary skills to talk about **[his/her]** appreciation of insects: a background in the study of insects, experience with public speaking, etc. **[He/She]** must also show that he can get along with existing members. If potential members can do these things, they are allowed to join the group.

[Grid – SP by Row]

BW 2. Sometimes, just by being a member of a group, people are respected more. Do you think joining the Bug Watchers will bring new members more respect from outsiders? If so, how much?

NO additional respect from outsiders			MODERATE amounts of additional respect from outsiders			HUGE amounts of additional respect from outsiders
0	1	2	3	4	5	6

[Grid – SP by Row]

BW 3. Sometimes, just by being a member of a group, people are better off than they were alone. In other words, other group members will watch out for them and help them if they get into any kind of trouble. Do you think new members of the Bug Watchers can count on this sort of group assistance? If so, to what extent?

NO group assistance when they need help			MODERATE amounts of group assistance when they need help			HUGE amounts of group assistance when they need help
0	1	2	3	4	5	6

[Grid – SP by Row]

BW 4. Most people can improve their skills if they work hard. Sometimes people can even improve their skills without working hard, just by hanging around highly-skilled people and listening to them or watching what they do. Over the first few months of membership, do you think new members of the Bug Watchers will be able to improve their understanding of insects in this way? If so, to what extent?

NO increase in skill from just watching and listening			MODERATE increase in skill from just watching and listening			HUGE increase in skill from just watching and listening
0	1	2	3	4	5	6

[Grid – SP by Row]

BW5. After the first few months of membership are over, to what extent do you think new members will be able to further improve their understanding of insects if they spend several years participating and working hard as a member?

NO increase in skill after			MODERATE increase in			HUGE increase in

several years of work			skill after several years of work			skill after several years of work
0	1	2	3	4	5	6

[Display]
The Bug Watchers have recently decided to have an initiation when new members join the group.

[Grid – SP by Row]
BW6.   As a member of the Bug Watchers, you have a say in whether the initiation will have a pleasant component, and if so, how pleasant it will be.

NO pleasant component			MODERATELY pleasant component			EXTREMELY pleasant component
0	1	2	3	4	5	6

[Grid – SP by Row]
BW7.   You also have a say in whether the Bug Watcher initiation will have a stressful component, and if so, how stressful it will be.

NO stressful component			MODERATELY stressful component			EXTREMELY stressful component
0	1	2	3	4	5	6

[Grid – SP by Row]
BW8.   Finally, as a Bug Watcher, you have a say in whether the group should pressure all new members to complete the initiation, and if so, to what extent.

NO pressure			MODERATE pressure			EXTREME pressure
0	1	2	3	4	5	6

Show GRP to all respondents.

APPENDIX C: SOCIAL DOMINANCE ORIENTATION SCALE

Which of the following objects or statements do you have a positive or negative feeling towards?

Beside each object or statement, place a number from "1" to "7" which represents the degree of

your positive or negative feeling.

7 = extremely positive   3 = slightly negative

6 = somewhat positive   2 = somewhat negative

5 = slightly positive   1 = extremely negative

4 = neutral

_____ 1. We should strive to make incomes as equal as possible.

_____ 2. Group equality should be our ideal.

_____ 3. It's OK if some groups have more of a chance in life than others.

_____ 4. To get ahead in life, it is sometimes necessary to step on other groups.

_____ 5. We should do what we can to equalize conditions for different groups.

_____ 6. It's probably a good thing that certain groups are at the top and others are at the bottom.

_____ 7. Inferior groups should stay in their place.

_____ 8. We would have fewer problems if groups were treated more equally.

_____ 9. It would be good if groups could be equal.

_____ 10. In getting what you want, it is sometimes necessary to use force against other groups.

_____ 11. All groups should be given an equal chance in life.

_____ 12. If certain groups stayed in their place, we would have fewer problems.

_____ 13. We should strive for increased social equality.

_____ 14. Sometimes other groups must be kept in their place.

_____ 15. Some groups of people are simply inferior to other groups.

_____ 16. No one group should dominate in society.

Please rate your agreement or disagreement with each item using the following guidelines.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Machiavellianism subscale

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

2. Generally speaking, people work hard unless they have to.

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 because they don't need to know.

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

9. Most people can be manipulated.

Narcissism subscale

1. People see me as a natural leader.

2. I hate being the center of attention.

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.

7. I have been compared to famous people.

8. I am an average person.

9. I insist on getting the respect I deserve.

Psychopathy subscale

1. I like to get revenge on authorities.

2. I avoid dangerous situations.

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. (Or I enjoy having sex with people I hardly know.)

6. People who mess with me always regret it.

7. I have never gotten into trouble with the law.

8. I like to pick on losers.

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

APPENDIX E: SHORT SADISTIC IMPULSE SCALE

1. I enjoy seeing people hurt.

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

3. Hurting people would be exciting.

4. I have hurt people for my own enjoyment.

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

6. I have fantasies which involve hurting people.

7. I have hurt people because I could.

8. I wouldn't intentionally hurt anyone.

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

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

APPENDIX F: CONSENT FORM

CONSENT FORM

Influence of Personality on Cooperation levels of Different Groups

IRB # 2014G7032

This study is being conducted by Mr. Javier Arteta-Garcia, a Master's student at Texas

State University, and Dr. John Davis, a faculty member of the same university, 601

University Drive, San Marcos, Texas 78666. Mr. Arteta-Garcia may be contacted by

phone at (512)-216-3331 and email at ja1342@txstate.edu, Dr. Davis may be contacted at

jd04@txstate.edu. Please read this form and ask any questions you may have before

agreeing to participate in the study.

This project [IRB # 2014G7032] was approved by the Texas State IRB on [9/29/2014].

Pertinent questions or concerns about the research, research participants' rights, and/or

research-related injuries to participants should be directed to the IRB chair, Dr. Jon

Lasser (512-245-3413 - lasser@txstate.edu) and to Becky Northcut, Director, Research

Integrity & Compliance (512-245-2314 - bnorthcut@txstate.edu).

You are being asked to participate in this study because you are a college student with

experience in social interactions and working in groups. In order to decide whether or not

you wish to be part of this research study, you need to know enough about its risks and

benefits which will allow you to make an informed choice. This consent form gives you

information about the research study and by reading it, you will learn about the different

aspects of this research: its purpose, the procedures that will be performed, any risks

involved in the procedures, and the benefits of being in the study. Once you fully understand the study, you will be asked if you wish to participate. If so, you will be asked to electronically sign this consent form.

The results of this study will provide a better understanding of how personality factors affect levels of cooperation in distinct groups. About 300 people will participate in this study. If you agree to be in the study, we will ask you to complete questionnaires asking about the following topics:

- General demographic information (age, gender, year in school, race/ethnicity, affiliation to any student organizations).
- Questions about cooperation within a hypothetical group:
  - Example: As a member of the Ice Walkers, you have a say in whether a initiation will have a pleasant component, and if so, how pleasant will it be?
- Statements about personality:
  - Examples:
    - We would have fewer problems if we treated people more equally.
    - I know that I am special because everyone keeps telling me so.
    - I have humiliated others to keep them in line.

All measures employed are standard questionnaires that have been used in numerous previous studies nationwide. It is also important to note that you may choose not to

answer any questions for any reason without any consequences to you or the extra-credit you will receive.

Description of the procedure: In this study, you will complete several questions and statements intended to assess your personality and the level of cooperation you would show in a fictional group about which you will read more once the study begins. The study consists of a total of 62 items evaluating your approval or disapproval with the previously mentioned topics, which should take around 20 to 30 minutes to complete.

Compensation: You will be given bonus credit in your PSY 1300 course. If you choose not to participate, you will still be entitled to gain extra credit for one of these courses by completing a short written assignment (a 2-3 page summary of an original research article with a theme relevant to Psychology).

Benefits: The main benefit to you from participating in this study is that you will become familiar with some of the different techniques that are used in psychological research. You will also be helping to increase our understanding of social interactions. The results of this study help in learning about how people with different personalities can come together to work in the formation of new groups. If you are interested, the results of the study will be available to you. Please contact Mr. Arteta-Garcia (ja1342@txstate.efu) or Dr. Davis (jd04@txstate.edu) if you would like to be sent the results of the study after it is completed.

Risks:

One risk associated with the test sessions is the risk associated with confidentiality. To guard against this risk, data will only be linked with your name for extra credit purposes. Once the study is complete, the tracking sheet will be destroyed and data will become de-identified. All the responses will be gathered via separate links and stored separately. Only the researcher, Javier Arteta-Garcia, and the supervisor of the project, Dr. John Davis, will have access to the data and tracking sheet, which will be maintained by the researcher and kept as a password-encrypted computer document. These methods of combating threats to confidentiality have been used successfully by faculty in the Department of Psychology at Texas State University.

Some of the questions that we will be asking may be of a personal nature (e.g., how would you react against other members of a group? Would you inflict pain or take advantage of others? etc.) It is important to note that you may choose not to answer questions in this study at any time and for any reason. Since multiple questions will be asked, you may experience fatigue. In order to avoid it, you should pace yourself when answering and you should try to complete this survey at home, when you do not have anything else to do during the day.

If you find any part of this study to be too upsetting or distressing, immediate care is available at the Health Center at Texas State University (behind LBJ Student Center and Jackson Hall), Phone: (day) 512-245-2161, (after hours) 512-245-2167, you will need to cover the costs for this provider, however. Psychological assistance may be obtained at

the University Counseling Center, Location: 5-4.1 LBJ Student Center, Phone 512-245-2208; E-mail: counselingcenter@txstate.edu. Mental health services at Texas State University are free to students, but the number of sessions allowed may be limited. You may also contact Cedar Creek Associates, LLC, Phone: 512-396-8540, or the Scheib Mental Health Center, Phone: 512-392-7151. However, you or your insurance will have to cover the costs of these last two mental health providers

Further information concerning your rights as a research participant can be obtained from the Texas State University Institutional Review Board at (512) 245-2314 or IRB@txstate.edu.

Right to Withdraw: At any time, you may choose not to be in the study. If you withdraw from the study, no new data about you will be collected. You may also withdraw your agreement for us to use your data that have already been collected (other than the data needed to keep track of your withdrawal). You may do this by informing the researchers (Mr. Arteta-Garcia and Dr. Davis) of your decisions on the phone, by e-mail or in a letter.

Your decision not to participate, or to withdraw from the study, will not involve any penalty or loss of benefits to which you are entitled. If you decide to withdraw, we ask that you contact Dr. John Davis in the Psychology Department at Texas State University, San Marcos, TX 78666. At that time, you will be asked for your permission to continue using the information about you that has already been collected prior to your withdrawal.

Early withdrawal will not penalize your relationship with the Department of Psychology or Texas State University.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Texas State University Office of Sponsored Programs at 512-245-2102. You will have an opportunity to request a copy of this information to keep for your records.

Statement of consent: "The purpose of this study, the procedures to be followed, risks and benefits have been explained to me. I have been allowed to ask any questions on my mind, and my questions have been answered to my satisfaction. I have been told to contact Mr. Arteta-Garcia or Dr. John Davis at Texas State University if I have any additional questions or concerns. I have read this consent form and agree to be in this study, with the understanding that I may withdraw at any time. I have been told that I will be given a signed copy of this consent form."

Please type your name and today's date here. This will serve as your electronic signature and proof of your consent.

Participant's Name: [Type Here]

Date: [Type Here]

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