Ideological Passion and Dark Tetrad in Predicting Support for Political Violence

Jocelyn J. Bélanger

New York University Abu Dhabi

Jais Adam-Troian

University of Sharjah

Nathan Quimpo

New York University Abu Dhabi

Milica Gajić

New York University Abu Dhabi

Claudia F. Nisa

New York University Abu Dhabi

Date: July 2021

Address correspondence to:

Jocelyn J. Bélanger

New York University Abu Dhabi

Department of Psychology

PO Box 129188, Abu Dhabi,

United Arab Emirates

(+971) 5-553-0343

[jocelyn.belanger@gmail.com](mailto:jocelyn.belanger@gmail.com)

**Abstract**

This research is to examine the interface between ideological passion and the dark

tetrad to predict radical activism. Prior research has shown that ideological obsessive passion is one of the strongest psychological factors associated supporting political violence. Here, we examine whether this relationship is magnified by the dark tetrad traits of personality (i.e., Machiavellianism, narcissism, psychopathy, and sadism) which have often been associated with anti-social behavior. In Study 1A-C, cross-sectional evidence indicated that the relationship between obsessive passion and radical activism was systematically accentuated by sadism. We found this pattern in three distinct ideological groups, namely, Democrats (*N* = 566), Republicans (*N* = 479), and Black Lives Matter supporters (*N* = 204). Of note, these effects were specific to radical activism and unrelated to mainstream activism. In Study 2, we replicated these findings by experimentally manipulating (harmonious vs. obsessive) passion in a sample of environmentalists (*N* = 233). The relationship between sadism and radical activism was significant when individuals were in an obsessively (but not in a harmoniously) passionate mindset. These results shed light on the interplay between motivation and personality traits to predict radical activism.

**Introduction**

Violent mobilization is a growing concern in the United States. A recent poll revealed that about 40% of Democrats and Republicans believe that political violence is somewhat justifiable (Institute for Economics and Peace, 2020) – two years ago, less than 10% of survey takers responded that way. Meanwhile, far-right extremism driven by changing demographics (i.e. White ethnic groups becoming minority, Bai & Frederico, 2020) is becoming more prevalent and racially motivated violence has galvanized millions of people to participate in street demonstrations supporting the Black Lives Matter movement. However, social discord truly reached its climax in January 2021 when Trump supporters stormed the U.S. Capitol to prevent the confirmation of Joe Biden’s election victory. Unfortunately, these tumultuous times are unlikely to go away anytime soon as growing economic inequalities and climate change exacerbate existing intergroup conflict and social tension (Bartusevicius, Bor, Jørgensen, & Petersen, 2020: Ajide & Alimi, 2021; Helman, & Zaitchik, 2020; Krieger & Meierrieks, 2019). In this context, it is thus imperative for psychological science to investigate what fuels radical activism.

To investigate this question, a recent field-wide meta-analysis listed over 98 putative risk and protection factors associated with radicalization and rank-ordered them according to their effect sizes (Wolfowicz et al., in press). The results of this study revealed that *obsessive passion* (OP) for an ideology — a motivational construct which refers to the overwhelming engagement in a political or religious ideology (Bélanger, 2021; Gousse-Lessard et al., 2013; Rip et al., 2012) — is one of the most important risk factors of radical intentions.

Now that the relationship between OP and radical activism is well-established, a new generation of research is needed to investigate the personality traits that may accentuate people’s proclivity to support ideological violence. An excellent starting point for this new research direction is the literature on the dark tetrad personality traits which has shown that Machiavellianism, narcissism, psychopathy, and sadism are robust predictors of anti-social behaviors (Johnson et al., 2019). As we describe below, our understanding of radicalization leading to violence may benefit from research at the intersection of motivation and personality. Through this research, our goal is to examine whether the dark tetrad personality traits moderate the relationship between ideological passion and radical activism across a wide range of political ideologies in the U.S.

**The Dualistic Model of Passion**

Ideological passion is defined as “a strong inclination toward a self-defining cause that is loved and valued, and in which people invest a significant amount of time and energy” (St-Louis et al., 2016, p. 263). The dualistic model of passion (Vallerand et al., 2003) posits two distinct kinds of passion: harmonious passion (HP) and obsessive passion (OP). Both types of passion are associated with similar levels of ideological commitment (i.e., the quantity of motivation) –individuals love their ideology to the same degree – but they predict different ways of pursuing the ideology in relation to other life domains (i.e., the quality of motivation; Bélanger, 2021; Bélanger, Schumpe, & Nisa, 2019).

OP is characterized by a strong and uncontrollable urge to pursue the ideology one is passionate about. The activity is attached to contingencies of self-worth (Mageau et al., 2011), which makes the individual prone to rigid (vs. flexible) task engagement and ego-insecurity (Bélanger et al., 2013a, Lafrenière et al., 2011). As a consequence, ideological obsession produces a state of motivational imbalance (Kruglanski et al., 2017; 2021); the ideological pursuit suppresses alternative goals, thus taking up a disproportionate amount of attentional resources (Bélanger et al., 2013; Bélanger, Schumpe & Nisa, 2019). This makes the activity difficult to regulate, ultimately producing conflicts with other life domains (Séguin‐Lévesque et al., 2003).

HP is also characterized by a strong desire to pursue one’s ideology, but this desire is under the person’s control. The activity is seen as central to the person’s identity, but is not associated with self-worth contingencies (Mageau et al., 2011), which makes the individual more flexible (vs. rigid) in choosing when to engage in the passionate activity (Vallerand et al., 2003). Therefore, HP makes it easier to regulate and integrate the passionate activity with other activities (Bélanger, Schumpe & Nisa, 2019).

Empirical evidence has shown that HP and OP are both positively associated with ideological commitment (Bélanger et al., 2019; 2020a; 2020b). However, despite this similarity HP and OP predict different political outcomes. For instance, Rip et al. (2012) found that Quebec nationalists who scored high on OP preferred aggressive and violent methods to fulfill their political goals, whereas those who scored high on HP preferred peaceful and democratic methods. Gousse-Lessard et al. (2013) replicated these findings with environmental activists. Extending this work, Bélanger et al. (2019) found that the relationship between OP and violent activism is mediated by moral disengagement and the dehumanization of outgroup members. Cross-cultural evidence also suggests that deviant associations mediate the relationship between OP and radical activism, especially when individuals are embedded in highly dense social networks (Bélanger et al., 2020a). Another important finding is that persuasive appeals intended to mitigate activists’ support for violence tend to increase (rather than decrease) their positive attitudes toward violence – however, this effect is only associated with OP, but not HP (Bélanger et al., 2020b).

Although OP remains a potent predictor of radical activism, there are reasons to believe it may be subject to a number of conditional processes related personality. In particular, the dark tetrad personality traits appear promising given their association with a host of anti-social outcomes (Book et al., 2016). We now turn to this concept.

**Dark Tetrad and Extremism**

The dark tetrad comprises four socially aversive personality traits found in the subclinical population: Machiavellianism, narcissism, psychopathy, and sadism. Machiavellianism refers to a deceitful and calculating interpersonal style with a focus on personal gain (Calvete & Corral 2000), while Narcissism is characterized by the egotistic pursuit of admiration accompanied by feelings of entitlement and superiority (Emmons, 1984). Psychopathy is defined by impulsivity, shallow affect, and enduring antisocial behavior (Mahmut et al., 2011) whereas sadism is characterized by the derivation of pleasure from the suffering of others (Foulkes, 2019). Evidence from twin studies indicate that dark tetrad traits are moderately heritable (Onley et al., 2013; Petrides et al., 2011), while developmental studies have shown that traits such as sadism and psychopathy may vary in reaction to childhood experiences (McEwen, & Arseneault, 2014).

For nearly two decades, Machiavellianism, narcissism, and psychopathy have been studied together as overlapping, but distinct constructs, under the label of Dark Triad (Paulhus & Williams, 2002). Sadism has recently been linked to the Dark Triad because these traits all share a common “callous core” – a lack of empathy towards others. Factor analyses have supported this theorizing by showing that sadism is a unique dimension that highly correlates with the Dark Triad (Dinić et al., 2020; Johnson et al., 2019; Međedović et al., 2015; Paulhus, 2014). These four traits are now studied together and known as the *Dark Tetrad*.

Of interest to the present research, several studies show that the dark tetrad successfully predicts support for violent behaviors and attitudes, such as fascination with weapons (Gonzalez & Greitemeyer, 2018), violent video game preference (Greitemeyer, 2015), workplace mistreatment (Min, 2019), juvenile delinquency in high school students (Chabrol et al., 2009), and criminal attitudes among football fans (Međedović & Kovačević, 2020). Across studies, sadism is consistently identified as the most reliable predictor of violent attitudes and behaviors, followed by psychopathy. On the other hand, narcissism and Machiavellianism show the weakest most inconsistent associations. Therefore, individuals who score high in dark tetrad traits –especially in sadism - may be ideal candidates for participating in extremist violence.

In fact, the link between the dark tetrad traits and radical political outcomes was recently corroborated by research drawing on samples in European and Arab countries. A study on voters in the 2016 Austrian presidential election, for example, found that narcissism and psychopathy were associated with political extremism (measured by how far participants scored from the midpoint on a single item of political orientation; Duspara & Greitemeyer, 2017). Studies among university students and convicts in Europe showed that militant extremist mindset — general patterns of radical cognitions (e.g. cynicism towards morality, using divine agent as legitimacy for violence) — is positively associated with sadism and psychopathy (Međedović & Knežević, 2018). These findings were replicated recently by Pavlović and Wertag (2021).

Despite growing amount of evidence linking political violence and the dark tetrads, there are several glaring gaps that needs addressing. First, studies do not directly rely on samples of political activists, but typically investigate general or undergraduate samples which are less susceptible to ideological radicalization (e.g. Chaabrol, 2020, Pavlović & Wertag, 2021). Second, most of the ideologies under investigation typically fall on the conservative side of the spectrum (i.e. Islamists and White/Christian nationalists). This poses issues in terms of external validity (Wells et al., 1999) and does not allow to detect potential processual asymmetries across different ideological groups (see Jost, 2017; Proch et al., 2019). What’s more, the relationships between political violence and dark tetrad traits are severely inconsistent across studies. For instance, in some research sadism and psychopath are positively associated with support for ISIS (Međedović & Knežević, 2018) – in other studies, only Machiavellianism is significantly and *negatively* associated with this variable (Pavlović & Storm, 2020) — and in the work of Chabrol et al. (2020), Machiavellianism is *positively* related to radical cognitions, but only narcissism is positively linked with self-reported radicalized behavior.

These differences may be attributable to the wealth of samples, operationalizations of dark tetrad measures (e.g. the MACH IV scale from Christie & Geis, 1970; see Pavlović & Storm, 2020) and outcomes (e.g., different scales for extremism, radical thoughts or intentions). In addition, we cannot exclude the possibility of confounds due to the overreliance on cross-sectional designs, which make it even harder to conclude on key “takeaway” messages. Therefore, in this research we designed set of studies that would allow us to clarify the relationship between dark tetrad traits and political violence to reliably test their potential synergistic role with ideological passion.

**The Present Research**

The purpose of this research was to examine the interplay between ideological passion and the dark tetrad traits to predict political activism. In Study 1, we conducted a series of online cross-sectional studies to find robust findings that generalize across numerous ideological groups (i.e., Democrats, Republican, Black Lives Matter activists). These results were then replicated in Study 2 with a sample of environmentalists using a (quasi)-experimental design which manipulated OP and HP — an important methodological improvement to understand the dynamic interplay between motivation and personality.

Building on prior findings, we expected that OP would be associated with radical activism (Bélanger et al., 2019; 2020; Gousse-Lessard et al., 2013; Rip et al. 2012). The dark tetrad traits were also expected to predict radical activism because they are associated with anti-social behaviors (Johnson et al., 2019). However, given the contradictory findings in the literature regarding the dark tetrad and political extremism, we did not make specific hypotheses regarding each trait. More importantly, however, we expected an interaction between OP and the dark tetrad, such that the relationship between OP and radical activism would be magnified when individuals score high on the dark tetrad traits. As in prior research, we predicted that HP would only predict mainstream activism (Bélanger et al., 2019; 2020; Rip et al., 2012). We did not expect HP to predict radical activism, nor any interaction effect with the dark tetrad traits.

**Studies 1A-C**

In this initial study, we examined the interface between ideological passion and the dark tetrad in three different ideological samples. Democrats were sampled in Study 1A, Republicans in Study 1B, and Black Lives Matter activists in Study 1C. The advantage of testing our hypotheses across groups is to detect robust patterns and increase the external validity of our findings (Cook, Campbell, & Shadish, 2002). We examined whether the relationship between OP and radical activism would be magnified by the dark tetrad.

**Method**

**Participants**

Assuming small-to-medium effect sizes (f2 = .085) and power set at .80, a sample of 185 people was suggested by G\*power (Faul, Erdfelder, Buchner, & Lang, 2009). Participants were invited to take part in this study because they either self-identified as Democrats (Study 1A), Republicans (Study 1B), or Black Lives Matter supporters (Study 1C) in an independent pre-screening survey posted on Mechanical Turk. We used TurkPrime (Litman, Robinson, & Abberbock, 2017) to ensure data quality (e.g., high approval ratings, no duplicate IP addresses).The following participants were recruited for each study: Study 1A, 566 Democrats (305 women, 261 men; *M*age= 41.02 years, *SD*age= 13.08), Study 1B, 479 Republicans (257 women, 222 men; *M*age= 41.81 years, *SD*age= 12.47), and Study 1C, 204 Black Lives Matter supporters (122 women, 80 men, 2 other; *M*age= 36.32 years, *SD*age= 11.99).

**Procedure and Materials**

Participants completed a survey measuring their ideological passion, their ideological commitment, the dark tetrad (i.e., Machiavellianism, narcissism, psychopathy, sadism), and their support for radical and mainstream activism.

**Passion**. We used the passion scale (Vallerand et al., 2013) to measure people’s harmonious and obsessive passion for their ideology. The scale has two 6-item subscales measuring harmonious (Study 1a: α = .93, Study 1b: α = .94, Study 1c: α = .88) and obsession passion (Study 1a: α = .90, Study 1b: α = .89, Study 1c: α = .91) — details for all scales are in supplementary materials. Both subscales were rated on a 7-point Likert scale ranging from 1 (*not agree at all*) to 7 (*very strongly agree*).

**Commitment**. Four items measured the extent to which participants are committed to their ideology (Study 1a: α = .87, Study 1b: α = .88, Study 1c: α = .83). Items were rated on a 7-point Likert scale ranging from 1 (*not agree at all*) to 7 (*very strongly agree*).

**Dark Tetrad.** We measured Machiavellianism, narcissism, and psychopathy using the short Dark Triad scale developed by Jones and Paulhus (2014). Sadism was measured using the scale developed by Plouffe, Saklofske, and Smith (2016). Each subscale had 9 items answered on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). These scales were reliable across studies: Machiavellianism (Study 1a: α = .87, Study 1b: α = .86, Study 1c: α = .82), narcissism (Study 1a: α = .79, Study 1b: α = .80, Study 1c: α = .81), psychopathy (Study 1a: α = .79, Study 1b: α = .81, Study 1c: α = .75), and sadism (Study 1a: α = .86, Study 1b: α = .88, Study 1c: α = .79) were reliable.

**Activism**. We measured people’s support for mainstream and radical activism using a scale developed by Gousse-Lessard et al. (2013). The scale was adapted to participants’ political ideology (see supplementary materials). For Democrats and Republicans, radical activism was measured using 6 items (Study 1a: α = .89, Study 1b: α = .93); mainstream activism was measured with 7 items (Study 1a: α = .93, Study 1b: α = .93). For Black Lives Matter supports, radical activism was measured using 5 items (Study 1c: α = .83); mainstream activism was measured with 7 items (Study 1c: α = .88). All scales were answered on a 7-point Likert scale ranging from 1 (*not agree at all*) to 7 (*very strongly agree*).

**Results and Discussion**

The predicted models were tested using Hayes’ (2018) PROCESS Model 1 Macro with 5,000 bootstrap samples and 95% confidence intervals. All variables were standardized before computing the interaction terms. In Table 1, we display means, standard deviations, and correlations for all measures and in Table 2 we report the standardized coefficients for each sample.

As can be gleaned from Table 2, results indicated that, across groups, mainstream activism was predicted by two main factors: harmonious passion and ideological commitment. None of the dark tetrad factors predicted this variable, nor did they interacted with OP or HP.

A different pattern of results emerged for radical activism. Across groups, OP predicted radical activism – a finding which replicates previous studies (for a review see Bélanger, 2021). Psychopathy also predicted radical activism across groups. More importantly, we found a significant interaction between OP and sadism for all three samples. Simple slopes analyses revealed that the relationship between OP and radical activism was significant when individuals were high (+1SD) on sadism (Study 1A: *β* = .26, *t* = 3.37, *p* = .0008; Study 1B: *β* = .60, *t* = 6.72, *p* < .001; Study 1C: *β* = .55, *t* = 3.91, *p* < .001). However, the relationship between OP and radical activism was no longer significant for those low (-1SD) on sadism (Study 1A: *β* = .04, *t* = .50, *p* = .61; Study 1B: *β* = .18, *t* = 1.93, *p* = .053; Study 1C: *β* = -.01, *t* = -.11, *p* = .91). Figures 1A-C display the interaction between OP and sadism on radical activism.

**Study 2**

Although the results were robust across all three samples,one limitation of Study 1 is that it was cross-sectional and an experiment is needed to derive causal relationships. The dark tetrad has been discussed as a cluster of stable personality traits (Paulhus & Williams, 2002; Trémolière & Djeriouat, 2016), whereas the concept of passion is a motivational construct that can be situationally induced (see Bélanger et al., 2013b; Lafrenière et al., 2013; Schellenberg et al., 2016). Thus, to increase the internal validity of our findings, we aim to induce an obsessive (vs. harmonious) mindset in participants and then measure the dark tetrad. In line with Study 1A-C, we expected that sadism would be associated with greater support for radical activism, but only for participants in the obsessive (not harmonious) condition.

**Method**

**Participants**

Assuming small-to-medium effect sizes (f2 = .085) and power set at .80, a sample of 146 people was suggested by G\*power (Faul, Erdfelder, Buchner, & Lang, 2009). Two hundred and thirty participants (127 women, 104 men, 2 other; *M*age= 40.09 years, *SD*age= 12.34) were invited to take part in this study because they self-identified as environmentalists in an independent pre-screening survey posted on Mechanical Turk. As in Study 1A-C, we used TurkPrime (Litman, Robinson, & Abberbock, 2017) to ensure data quality.

**Procedure and Materials**

As in Study 1, participants responded to the dark tetrad questionnaire measuring Machiavellianism (α = .67), narcissism (α = .77), psychopathy (α = .77), and sadism (α = .89). Each dimension was measured with 3 items (see supplementary materials). Participants were randomly assigned to one of two experimental conditions.

In the obsessive passion condition (*N* = 115), participants were instructed to

“Write about a time when you had difficulties controlling your urge to get involved in the environmental cause and you felt that your involvement in the environmental cause was the only thing that really captivated you. Recall this time vividly and include as many details as you can to relive the experience. If this hasn't happened to you, imagine and write how it would feel to experience that.”

In the harmonious passion condition (*N* = 118), participants were instructed to

“Write about a time when your involvement in the environmental cause was in harmony with other things that are part of you and you felt that your involvement in the environmental cause allowed you to live a variety of experiences. Recall this time vividly and include as many details as you can to relive the experience. If this hasn't happened to you, imagine and write how it would feel to experience that.”

Then, participants’ willingness to engage in mainstream (α = .89) and radical (α = .83) activism was measured with Gousse-Lessard et al.’s (2013) scale.

**Results and Discussion**

The predicted models were tested using Hayes’ (2018) PROCESS Model 1 Macro with 5,000 bootstrap samples and 95% confidence intervals. All variables were standardized before computing the interaction terms. We display means, standard deviations, and correlations for all measures in Table 3. Table 4 includes the standardized betas of the multiple regression analyses.

Results indicated that mainstream activism was not predicted nor by the experimental condition, the dark tetrad, or the interaction terms. However, consistent with Study 1A-1C we found a significant interaction between the experimental condition and sadism when predicting radical activism (*β* = .48, *p* =.02). Simple slope analyses revealed that sadism was positively related to violent extremism when individuals where in the OP condition (*β* = .65, *t* = 3.59, *p* < .001), but that relationship was no longer significant when individuals where in the HP condition (*β* = .17, *t* = 1.75, *p* =.08). Figure 2 displays the interaction.

**General Discussion**

The present research investigated the interface between the dualistic model of passion (motivation) and the dark tetrad (personality) to predict political activism. The first question we examined is whether these two sets of individual differences are uniquely associated with radical activism. This is an important question because OP, Machiavellianism, narcissism, psychopathy, and sadism are all associated with malevolent features. Across several ideological groups, our findings indicated that the most reliable and robust predictors of radical activism were OP, sadism, and psychopathy. Mainstream activism, on the other hand, was only reliably predicted by HP.

The second question of theoretical relevance is whether the relationship between OP and radical activism is moderated by the dark tetrad. Here, we found a consistent interaction effect involving OP and sadism (but none of the other dark traits). Specifically, the greater the sadism, the stronger the relationship between OP and radical activism. Importantly, in Study 2 we experimentally manipulated harmonious and obsessive passion mindsets and found that the relationship between sadism and radical activism was only significant when people were in an obsessive (but not harmonious) passion mindset – this finding highlights the dynamic interplay between personality and motivation. Moreover, the interaction between OP and sadism was significant across all four ideological samples, thus yielding evidence high in both internal and external validity. Taken together, the foregoing results make theoretical contributions to both the dualistic model of passion and the dark tetrad literature.

**Theoretical Contributions**

One of the key contributions of this paper is to show that OP does not foster radical activism to the same extent depending on individuals’ dark personality traits. We found that, although OP generally predicts radical activism, this relationship is amplified among sadists. These results are interesting because one of the mechanisms through which OP generates radical activism is ego-defensiveness (Bélanger et al., 2019; 2021). In other words, high-OP individuals rely on dysfunctional goal-regulation processes, whereby failure to achieve the “passion” goal triggers ego-defensiveness. To the extent that ideological obsession ties self-esteem with ideology (hence identity and beliefs about oneself), the reason why sadism magnified the effect of OP on radical activism becomes clearer.

Indeed, psychological theorizing (see Baumeister et al., 1999) suggests that sadism is a self-protective mechanism whereby the pleasure derived from hurting others serves to offset the visceral disgust and distress associated with performing violent behavior. Consistent with that view, studies have shown the relationship between sadism and internet trolling (i.e., hurting others online) is stronger for individuals with high self-esteem (March et al., 2020) and sadism tends to be exacerbated when people are experiencing threats to the self (Pfattheicher et al., 2015).

In addition to shedding light on the interplay between motivation and personality to explain radical activism, the present research contributes to the broader debate regarding the involvement of psychopathological factors in radicalization processes (see Misiak et al., 2019). Empirical studies have so far provided mixed evidence regarding the role of depression and other forms of mental health issues in fostering or inhibiting radical behavior (e.g. Koehler, 2020). Here, we argue that this needs not be an “either or” situation. Our results suggest that sub-clinical forms of psychopathological traits (i.e. sadism) may favor radical tendencies, especially in interaction with dysfunctional motivational mechanisms (i.e. OP) that are also involved in addictive disorders (Bélanger, 2021; Fisher et al., 2016; Steers et al., 2015). Thus, although extremists may not be “mentally ill”, radical behavior and cognition may stem from subclinical forms of personality or motivational mechanisms also present in other forms of disorder (e.g. affective, anxiety).

In light of the above-mentioned theoretical points,the present findings emphasize the role of individual differences in driving adherence to extremist ideologies and violent political intentions. As such, future investigations should explore whether interventions targeting obsessive passion or sadistic tendencies could help prevent or diminish extremist attitudes and behaviors among vulnerable populations or former extreme activists. There is in fact evidence that psychotherapy techniques may be efficient in fostering personality change over time, and that emotional stability – which bear implications for goal-regulation – can be changed rapidly (independent of the type of psychotherapy delivered, see Roberts et al., 2017). Psychological interventions could be adapted to target sadistic tendencies and cognitions, including elements related to self-regulation (e.g. based on cognitive behavioral treatments of addiction, Magill et al., 2009) and tested in the context of radicalization prevention programs.

**Conclusion**

The present research examined a new generation of research questions by looking into the interplay between motivation (ideological passion) and personality (dark tetrads) to explain political activism. Across several ideological groups, individuals who were both ideologically obsessed and display high levels sadism were more likely to support radical activism (e.g. assault members of ideologically opposed groups). These robust findings suggest that political violence result from dysfunctional self-regulatory processes (OP) which are exacerbated by personality factors that downplay empathetic concerns (sadism). Thus, future efforts should examine how public health research and practice can inform preventive strategies to curb radical activism.

References

Bélanger, J. J., Lafrenière, M. A. K., Vallerand, R. J., & Kruglanski, A. W. (2013). When

passion makes the heart grow colder: The role of passion in alternative goal suppression. *Journal of Personality and Social Psychology*, *104*(1), 126.

Bélanger, J. J., Schumpe, B. M., & Nisa, C. F. (2019a). How passionate individuals regulate their

activity with other life domains: A goal‐systemic perspective. *Journal of personality*, *87*(6), 1136-1150.

Bélanger, J. J., Schumpe, B. M., Nociti, N., Moyano, M., Dandeneau, S., Chamberland, P. E., &

Vallerand, R. J. (2019b). Passion and moral disengagement: Different pathways to

political activism. *Journal of personality*, *87*(6), 1234-1249.

Bonneville-Roussy, A., Lavigne, G. L., & Vallerand, R. J. (2011). When passion leads to

excellence: The case of musicians. *Psychology of Music*, *39*(1), 123-138.

Calvete, E., & Corral, S. (2000). Machiavellianism: Dimensionality of the Mach IV and its

relation to self-monitoring in a Spanish sample. *The Spanish journal of psychology*, *3*, 3.

Chabrol, H., Van Leeuwen, N., Rodgers, R., & Séjourné, N. (2009). Contributions of

psychopathic, narcissistic, Machiavellian, and sadistic personality traits to juvenile delinquency. *Personality and individual differences*, *47*(7), 734-739.

Chabrol, H., Bronchain, J., Morgades Bamba, C. I., & Raynal, P. (2020). The Dark Tetrad and

radicalization: personality profiles in young women. *Behavioral Sciences of Terrorism and Political Aggression*, *12*(2), 157-168.

Carpentier, J., Mageau, G. A., & Vallerand, R. J. (2012). Ruminations and flow: Why do people

with a more harmonious passion experience higher well-being?. *Journal of Happiness studies*, *13*(3), 501-518.

Curran, T., Hill, A. P., Appleton, P. R., Vallerand, R. J., & Standage, M. (2015). The psychology

of passion: A meta-analytical review of a decade of research on intrapersonal outcomes. *Motivation and Emotion, 39,* 631–655. http://dx.doi.org/10.1007/s11031-015-9503-0

Dinić, B. M., Sadiković, S., & Wertag, A. (2020). Factor Mixture Analysis of the Dark Triad and

Dark Tetrad: Could Sadism Make a Difference?. *Journal of Individual Differences*, *1*(1), 1-10.

Duspara, B., & Greitemeyer, T. (2017). The impact of dark tetrad traits on political orientation

and extremism: an analysis in the course of a presidential election. *Heliyon*, *3*(10), e00425.

Emmons, R. A. (1984). Factor analysis and construct validity of the narcissistic personality

inventory. *Journal of personality assessment*, *48*(3), 291-300.

Foulkes, L. (2019). Sadism: Review of an elusive construct. *Personality and individual*

*differences*, *151*, 109500.

Greitemeyer, T. (2015). Everyday sadism predicts violent video game preferences. *Personality*

*and Individual Differences*, *75*, 19-23.

Gonzalez, J. M., & Greitemeyer, T. (2018). The relationship between everyday sadism, violent

video game play, and fascination with weapons. *Personality and Individual Differences*, *124*, 51-53.

Johnson, L. K., Plouffe, R. A., & Saklofske, D. H. (2019). Subclinical sadism and the dark triad:

Should there be a dark tetrad? *Journal of Individual Differences*, *40*(3), 127.

Lafrenière, M. A. K., Jowett, S., Vallerand, R. J., Donahue, E. G., & Lorimer, R. (2008). Passion

in sport: On the quality of the coach–athlete relationship. *Journal of Sport and Exercise Psychology*, *30*(5), 541-560.

Mageau, G. A., Carpentier, J., & Vallerand, R. J. (2011). The role of self‐esteem contingencies in

the distinction between obsessive and harmonious passion. *European Journal of Social Psychology*, *41*(6), 720-729.

Mageau, G. A., & Vallerand, R. J. (2007). The moderating effect of passion on the relation

between activity engagement and positive affect. *Motivation and Emotion*, *31*(4), 312-321

Mahmut, M. K., Menictas, C., Stevenson, R. J., & Homewood, J. (2011). Validating the factor

structure of the Self-Report Psychopathy scale in a community sample. *Psychological assessment*, *23*(3), 670.

McEwen, F. S., Moffitt, T. E., & Arseneault, L. (2014). Is childhood cruelty to animals a marker

for physical maltreatment in a prospective cohort study of children?. *Child abuse & neglect*, *38*(3), 533-543.

Međedović, J., & Knežević, G. (2019). Dark and peculiar: The key features of militant extremist

thinking pattern?. *Journal of Individual Differences*, *40*(2), 92-103.

Međedović, J., & Kovačević, U. (2020). Sadism as a Key Dark Trait in the Link Between

Football Fandom and Criminal Attitudes. *Journal of Individual Differences*, *42*(1), 9-18.

Međedović, J., & Petrović, B. (2015). The Dark Tetrad: Structural Properties and Location in the

Personality Space. *Journal of Individual Differences*, *36*(4), 228-236.

Min, H., Pavisic, I., Howald, N., Highhouse, S., & Zickar, M. J. (2019). A systematic

comparison of three sadism measures and their ability to explain workplace mistreatment over and above the dark triad. *Journal of research in personality*, *82*, 103862.

Mokros, A., Schilling, F., Weiss, K., Nitschke, J., & Eher, R. (2014). Sadism in sexual offenders:

Evidence for dimensionality. *Psychological assessment*, *26*(1), 138.

Onley, M., Veselka, L., Schermer, J. A., & Vernon, P. A. (2013). Survival of the scheming: a

genetically informed link between the dark triad and mental toughness. *Twin Research and Human Genetics*, *16*(6), 1087-1095.

Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism,

Machiavellianism, and psychopathy. *Journal of research in personality*, *36*(6), 556-563.

Paulhus, D. L. (2014). Toward a taxonomy of dark personalities. *Current Directions in*

*Psychological Science*, *23*(6), 421-426.

Pavlović, T., & Wertag, A. (2021). Proviolence as a mediator in the relationship between the

dark personality traits and support for extremism. *Personality and Individual Differences*, *168*, 110374.

Petrides, K. V., Vernon, P. A., Schermer, J. A., & Veselka, L. (2011). Trait emotional

intelligence and the dark triad traits of personality. *Twin Research and Human Genetics*, *14*(1), 35-41.

Rip, B., Vallerand, R. J., & Lafrenière, M. A. K. (2012). Passion for a cause, passion for a creed:

On ideological passion, identity threat, and extremism. *Journal of Personality*, *80*(3), 573-602.

Rousseau, F. L., & Vallerand, R. J. (2008). An examination of the relationship between passion

and subjective well-being in older adults. *The International Journal of Aging and Human Development*, *66*(3), 195-211.

Séguin‐Lévesque, C., Lalibertea, M. L. N., Pelletier, L. G., Blanchard, C., & Vallerand, R. J.

(2003). Harmonious and obsessive passion for the Internet: Their Associations with the

Couple's relationship. *Journal of applied social psychology*, *33*(1), 197-221.

Shah, J. Y., Friedman, R., & Kruglanski, A. W. (2002). Forgetting all else: on the antecedents

and consequences of goal shielding. *Journal of personality and social psychology*, *83*(6), 1261.

St‐Louis, A. C., Carbonneau, N., & Vallerand, R. J. (2016). Passion for a cause: How it affects

health and subjective well‐being. *Journal of Personality*, *84*(3), 263-276.

Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., Gagné,

M., & Marsolais, J. (2003). Les passions de l'ame: on obsessive and harmonious passion. *Journal of personality and social psychology*, *85*(4), 756.

Vallerand, R. J., Paquet, Y., Philippe, F. L., & Charest, J. (2010). On the role of passion for work

in burnout: A process model. *Journal of personality*, *78*(1), 289-312.

Wang, C. K. J., Khoo, A., Liu, W. C., & Divaharan, S. (2008). Passion and intrinsic motivation

in digital gaming. *CyberPsychology & Behavior*, *11*(1), 39-45.

Table 1

*Means, Standard Deviations, and Correlations Involving Variables from Study 1A (N = 566), 1B (N = 479), and 1C (N = 204)*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *M* | *SD* | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| OP (1) | 2.19  (2.12)  [2.06] | 1.33  (1.32)  [1.30] | .51\*\*\*  (.61\*\*\*)  [.50\*\*\*] | .62\*\*\*  (.70\*\*\*)  [.49\*\*\*] | .26\*\*\*  (.35\*\*\*)  [.05] | .27\*\*\*  (.33\*\*\*)  [.34\*\*\*] | .26\*\*\*  (.40\*\*\*)  [.13] | .35\*\*\*  (.46\*\*\*)  [.15\*] | .36\*\*\*  (.52\*\*\*)  [.25\*\*\*] | .36\*\*\*  (.55\*\*\*)  [.34\*\*\*] |
| HP (2) | 4.17  (3.93)  [4.47] | 1.53  (1.62)  [1.31] |  | .80\*\*\*  (.84\*\*\*)  [.80\*\*\*] | .04  (.13\*\*)  [-.07] | .15\*\*\*  (.20\*\*\*)  [.20\*\*] | -.04  (.05)  [-.04] | -.08  (.08)  [-.07] | .62\*\*\*  (.60\*\*\*)  [.61\*\*\*] | .12\*\*  (.21\*\*\*)  [.25\*\*\*] |
| Commitment (3) | 3.95  (3.79)  [4.18] | 1.47  (1.56)  [1.30] |  |  | .07  (.21\*\*\*)  [-.04] | .16\*\*\*  (.20\*\*\*)  [.21\*\*] | .01  (.14\*\*\*)  [-.06] | .02  (.18\*\*\*)  [-.08] | .54\*\*\*  (.64\*\*\*)  [.62\*\*\*] | .16\*\*\*  (.27\*\*\*)  [.29\*\*\*] |
| Machiavellianism (4) | 2.79  (2.79)  [2.79] | .83  (.83)  [.73] |  |  |  | .36\*\*\*  (.40\*\*\*)  [.23\*\*\*] | .52\*\*\*  (.61\*\*\*)  [.53\*\*\*] | .44\*\*\*  (.53\*\*\*)  [.33\*\*\*] | .00  (.18\*\*\*)  [-.12] | .22\*\*\*  (.29\*\*\*)  [.17\*\*] |
| Narcissism (5) | 2.60  (2.61)  [2.62] | .71  (.71)  [.74] |  |  |  |  | .36\*\*\*  (.44\*\*\*)  [.25\*\*\*] | .34\*\*\*  (.38\*\*\*)  [.14\*] | .09\*  (.14\*\*\*)  [.01] | .18\*\*\*  (.23\*\*\*)  [.14\*] |
| Psychopathy (6) | 1.83  (1.82)  [1.94] | .72  (.78)  [.61] |  |  |  |  |  | .73\*\*\*  (.74\*\*\*)  [.56\*\*\*] | -.01  (.10\*\*)  [-.15\*] | .39\*\*\*  (.48\*\*\*)  [.41\*\*\*] |
| Sadism (7) | 1.54  (1.61)  [1.38] | .66  (.73)  [.48] |  |  |  |  |  |  | -.01  (.14\*\*)  [-.12] | .48\*\*\*  (.58\*\*\*)  [.28\*\*\*] |
| Mainstream activism (8) | 4.35  (3.60)  [4.71] | 1.79  (1.83)  [1.48] |  |  |  |  |  |  |  | .26\*\*\*  (.30\*\*\*)  [.20\*\*] |
| Radical activism (9) | 1.57  (1.43)  [1.86] | 1.06  (1.07)  [1.24] |  |  |  |  |  |  |  |  |

*Note*. \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Values for Democrats and Republicans are located outside and inside the parentheses, respectively; values for Black Lives Matter are in brackets.

Table 2. Standardized Betas (Study 1A-1C)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Independent  variables | Democrats  Radical  (*R2* = .33 ) | Democrats  Mainstream  (*R2* = .40) | Republicans  Radical  (*R2* = .53) | Republicans  Mainstream  (*R2* =.45) | Black Lives Matter  Radical  (*R2* = .38 ) | Black Lives Matter  Mainstream  (*R2* = .47) |
| OP | .16\*\* | .04 | .38\*\*\* | .25\* | .27\*\* | -.08 |
| HP | .07 | .97\*\*\* | -.01 | .35\*\* | .01 | .48\*\*\* |
| Commitment | -.01 | .19 | -.05 | .68\*\*\* | .27\* | .63\*\*\* |
| Machiavellianism | -.02 | -.08 | -.05 | .14 | -.11 | .001 |
| Narcissism | -.00 | -.009 | -.07 | -.01 | -.007 | -.12 |
| Psychopathy | .14\* | .005 | .13\* | -.11 | .56\*\*\* | -.18 |
| Sadism | .27\*\*\* | .13 | .19\*\*\* | -.04 | -.04 | .12 |
| OP X Machiavellianism | .05 | .03 | -.10 | -.01 | .04 | -.07 |
| OP X Narcissism | -.07 | .01 | -.16\* | -.03 | -.01 | -.03 |
| OP X Psychopathy | .05 | -.03 | .16\* | -.17 | -.10 | .09 |
| OP X Sadism | .12\* | -.07 | .19\*\* | .18 | .29\*\* | -.20 |
| HP X Machiavellianism | .04 | -.14 | .07 | .08 | .06 | -.07 |
| HP X Narcissism | -.007 | -.03 | .03 | -.13 | -.09 | -.05 |
| HP X Psychopathy | -.12 | -.02 | -.05 | .008 | .08 | -.03 |
| HP X Sadism | .09 | .17 | -.05 | .01 | .01 | .18 |

*Note*. \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Table 3

*Means, Standard Deviations, and Correlations Involving Variables from Study 2(N = 233)*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *M* | *SD* | 2 | 3 | 4 | 5 | 6 | 7 |
| Experimental conditions a (1) | — | — | -.05 | -.09 | -.06 | -.06 | .03 | -.03 |
| Machiavellianism (2) | 2.98 | 1.28 |  | .66\*\*\* | .49\*\*\* | .40\*\*\* | .05 | .27\*\*\* |
| Narcissism (3) | 2.70 | 1.41 |  |  | .59\*\*\* | .41\*\*\* | .03 | .37\*\*\* |
| Psychopathy (4) | 1.59 | .99 |  |  |  | .73\*\*\* | .02 | .57\*\*\* |
| Sadism (5) | 1.36 | .88 |  |  |  |  | .001 | .53\*\*\* |
| Mainstream activism (6) | 4.78 | 1.41 |  |  |  |  |  | .27\*\*\* |
| Radical activism (7) | 1.67 | .96 |  |  |  |  |  |  |

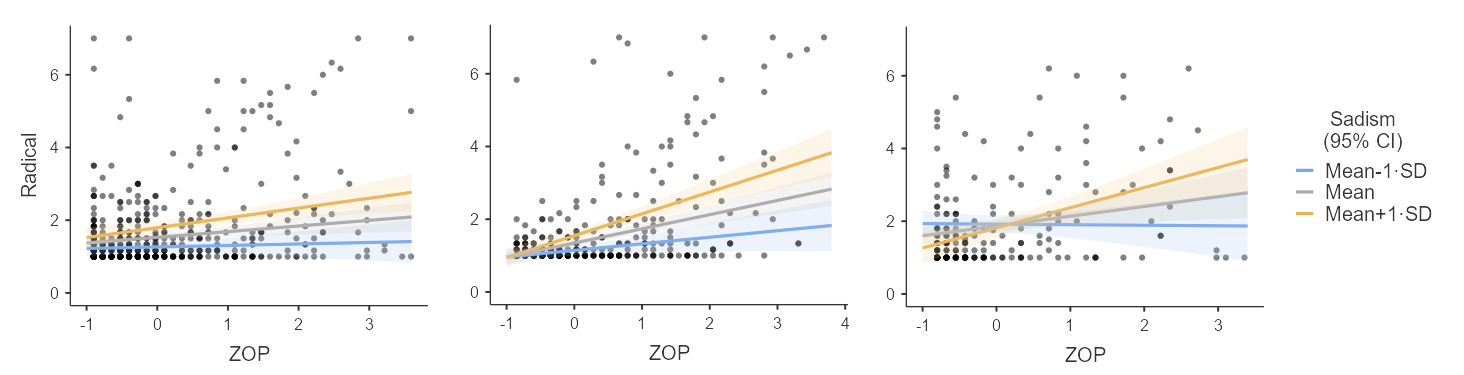
*Note*. a 0 = harmonious passion, 1 = obsessive passion; \* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

Table 2. Standardized Betas (Study 2)

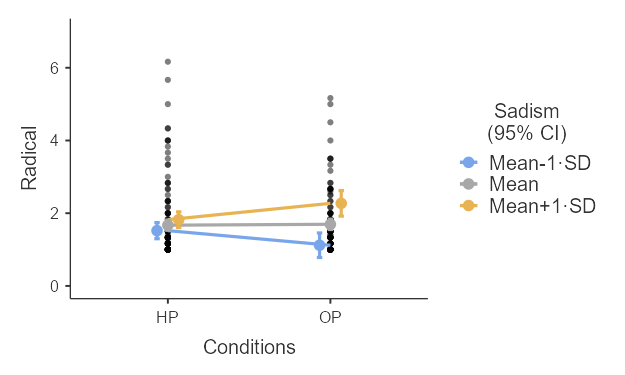
|  |  |  |
| --- | --- | --- |
| Independent  variables | Environmentalists | |
| Radical  (*R2* =.37) | Mainstream  (*R2* = .01) |
| Experimental Condition | .01 | .04 |
| Machiavellianism | -.08 | .09 |
| Narcissism | .11 | -.01 |
| Psychopathy | .28\*\* | .03 |
| Sadism | .36\*\*\* | -.07 |
| Exp. Cond X Machiavellianism | -.04 | -.06 |
| Exp. Cond X Narcissism | .02 | .06 |
| Exp. Cond X Psychopathy | -.17 | -.16 |
| Exp. Cond X Sadism | .21\* | -.01 |

*Note*. a 0 = harmonious passion, 1 = obsessive passion;

\* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001

**

*Figures 1A-C*. Study 1: The relationship between OP and radical activism as a function of sadism (Democrats = left panel; Republicans = center panel; Black Lives Matter = right panel).



*Figure 2*. Study 2: The relationship between experimental conditions (HP vs. OP) and radical activism as a function of sadism.