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Higher self-control predicts engagement in undesirable moralistic aggression

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ABSTRACT

Lack of self-control is considered to be a key factor in generating aggression and violence. However, across two studies, aggression was associated with greater self-control when participants felt that violence was undesirable but morally required. Using a within-subjects retrospective method, in Study 1 ($N = 95$) participants recalled having greater self-control when they themselves engaged in aggression as a perpetrator that they felt was automatically aversive but morally right compared to when they avoided such aggression. The opposite pattern was found for aggression that participants felt was automatically desirable but morally wrong, replicating prior results. Using a between-subjects vignette-based method, in Study 2 ($N = 213$), it was found that higher trait levels of self-control predicted greater willingness to fight when participants saw aggression as undesirable but morally right in a hypothetical scenario. Implications of these findings are discussed in terms of how perpetrator motivation determines the role of self-control in aggression.

1. Introduction

A fundamental cause of suffering is the violence that humankind inflicts upon itself. This aggression ranges from spontaneous brawls to carefully plotted acts of revenge. It includes people who fight for themselves and those who fight for others. Sometimes people fight because they want to; other times they fight because they have to. In some cases, perpetrators regret their actions, while in others they swear they would do it again.

In spite of this diversity in aggression and motives for pursuing it, the ability to regulate emotions and exert self-control over violent impulses is thought to be a key factor in reducing many forms of violence. According to self-regulatory theories of aggression, people have violent impulses that engage automatically in response to aversive or threatening stimuli, but their sense of self-control acts to inhibit these violent impulses. When self-control is weakened through depletion, frustration, or other exertion, the inhibitory mechanisms restraining violent impulses break down, enabling aggression (DeWall, Anderson, and Bushman, 2011; DeWall, Deckman, et al., 2011; Denson, DeWall, & Finkel, 2012).

In support of these theories, trait measures of self-control find that higher levels of self-control predict more aggressive behavior, including child misconduct, intimate partner violence, and crime (Brannigan, Gemmell, Pevalin, & Wade Terrance, 2002; de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012; Denson, Capper,

Oaten, Friese, & Schofield, 2011; Derefinko, DeWall, Metze, Walsh, & Lynam, 2011; Finkel et al., 2012; Finkel, DeWall, Slotter, Oaten, & Foshee, 2009; Gottfredson & Hirschi, 1990). Experimentally depleting self-control through fasting, hot temperature, time pressure, and cognitively draining tasks increases aggressive responses to provocation (Cleare & Bond, 1995; Bjork, Dougherty, Moeller, Cherek, & Swann, 1999; Gailliot et al., 2007; DeWall, Baumeister, Stillman, & Gailliot, 2007; DeWall, Bushman, Giancola, & Webster, 2010; DeWall, Finkel, and Denson, 2011). Improving self-control through training or glucose consumption decreases aggressive responses to provocation (Gailliot & Baumeister, 2007; Denson et al., 2011; DeWall, Finkel, and Denson, 2011).

However, while depleted participants are more likely to respond aggressively to insults, negative feedback, and unfair offers, they are no more likely to aggress in the absence of these instigating triggers (Crockett, Clark, Tabibnia, Lieberman, & Robbins, 2008; DeWall et al., 2007; Finkel et al., 2009). Meanwhile, recent studies have found that when perpetrators aggress in a more planned fashion in order to achieve instrumental goals, aggression is not associated with self-control (Raine et al., 2006; White & Turner, 2014; Winstok, 2009). Wrangham (2018) has argued that humans are unique among primates in their relative propensity for this planned ‘proactive’ aggression compared to more automatic ‘reactive’ forms of aggression. Taken together, these findings suggest that self-control only decreases aggression when people have an automatic violent impulse that they must

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suppress upon reflection, but that this form of aggression may not capture the full range of human aggression.

Extending this line of reasoning, I examine conditions in which perpetrators feel an automatic *nonviolent* impulse that they must *overcome* in order to successfully engage in aggression that is morally required (Smith, 2009, 2011). For example, soldiers often feel disgust, nausea, horror, and revulsion when killing in war, even if they believe their violence is morally justified. These aversive feelings cause soldiers to struggle to fire at the enemy, to jerk their hands when firing so that they miss even from point blank range, and to suffer from PTSD symptoms if they do succeed in killing (Baumeister, 1997, pp. 206–212; Browning, 1993; Rawn & Vohs, 2011). In spite of how aversive people often find violence, they often feel morally obligated to pursue it. In contexts as diverse as war, suicide, homicide, torture, and terrorism, perpetrators often perceive their violent actions as morally required, no matter how abhorrent they may feel, and so they carry out their actions in spite of their misgivings (Atran, 2010; Fiske & Rai, 2014; Pinker, 2012; Rai & Fiske, 2011). Under these conditions, in which an initial non-violent impulse must be overcome in order to achieve a violent outcome, it is unclear how self-control interacts with aggression.

Dominant theories of aggression that focus on automatic violent impulses that must be restrained by self-control, such as the general aggression model (DeWall, Anderson, and Bushman, 2011; Denson et al., 2012) acknowledge that self-control may be necessary to engage in some calculated acts of aggression, such as carefully plotted acts of revenge. However, discussion of these more conscious acts of aggression receives less focus in these models (Ferguson & Dyck, 2012; Wrangham, 2018). Moreover, in these cases, individuals are exercising self-control in order to restrain from engaging in aggression they desire until choosing to give in to their violent temptations at a later time, as opposed to willfully engaging in violence that they do not automatically desire. It has been theorized that individuals may exercise self-control when engaging in risky behavior to achieve interpersonal goals, such as when people engage in unsafe sex to appease a romantic partner. In these cases, understanding an actor's motives appears to be necessary to determine if self-control will increase or decrease the likelihood of self-harm (Rawn & Vohs, 2011). More broadly, recent theoretical advances suggest that self-control may be best conceptualized as a form of value-based choice, in which impulsivity need not necessarily be tied to harmful outcomes (Berkman, Hutcherson, Livingston, Kahn, & Inzlicht, 2017; Inzlicht, Shenhav, & Olivola, 2018).

Building on these theoretical frameworks, I theorize that in order for self-control to inhibit automatic violent impulses, people must feel that violence is morally wrong or counterproductive upon reflection. Otherwise, they would have no reason to inhibit their initial violent impulse. In contrast, when people feel that violence is morally required or necessary upon reflection, they may exert self-control in order to overcome automatic nonviolent impulses. From this perspective, self-control does not directly restrain aggression; rather, it inhibits any automatic response, violent or nonviolent, in order to achieve competing goals (Carver & Scheier, 2001). Thus, it is hypothesized that if perpetrators find some acts of violence to be automatically aversive but morally required, then in these cases higher levels of self-control may be associated with increased, rather than decreased, levels of aggression.

There is limited, indirect, and mixed evidence that bears on this hypothesis. Denson et al. (2016) found a three-way interaction wherein using a non-dominant hand for everyday tasks for two weeks increased willingness to follow orders to kill bugs in an experiment, but only among participants who did not feel responsible for their actions. Participants who felt responsible for their actions were less likely to kill bugs following two weeks of use of a non-dominant hand. Alcohol consumption has been found to increase participants' willingness to make utilitarian sacrifices in moral dilemmas, but in these dilemmas both choices involve harm, and alcohol may have its effects via a mechanism other than self-control (Duke & Bègue, 2015). Neural areas

implicated in self-control processes show greater activation when participants make utilitarian sacrifices in moral dilemmas (Greene, Nystrom, Engell, Darley, & Cohen, 2004), suggesting that under some conditions, self-control may increase certain kinds of moralistic aggression that may be undesirable. While these studies are suggestive of a link between greater self-control and more support for some forms of aggression, to date, no investigation has directly investigated whether higher levels of self-control are associated with increased aggression against others that perpetrators do not automatically desire, but to which they feel morally obligated to pursue.

Across two studies, I test the hypothesis that self-control is associated with decreased aggression when it is automatically desired but reflectively perceived as morally wrong, while self-control is associated with increased aggression when it is automatically aversive but reflectively perceived as morally required.

2. Method

American participants were recruited through the Mechanical Turk site run by Amazon.com. Data collected from Mechanical Turk is as reliable as data gathered through traditional methods (Buhrmester, Kwang, & Gosling, 2011; Buhrmester, Talaifar, & Gosling, 2018). Participants were compensated with \$0.25. The IP addresses of participants' computers were recorded to ensure that they did not participate in the study multiple times. The Institutional Review Board declared this study exempt. Informed consent was obtained from all participants prior to participation. I aimed to recruit 100 participants for study 1 as it was a within-subjects study with four conditions, and 200 participants for study 2 as it was a between-subjects condition with two conditions and so would not require corrections for multiple comparisons (Simonsohn, 2017). Participants in all experiments were assigned to conditions randomly. Participants in all experiments reported demographic information including their political orientation, age, ethnicity, and education level. 77% of the participants across the studies identify as white or European-American, and participants ranged from 18 to 68 years of age. Participants in all experiments were asked to guess the hypotheses. None succeeded.

3. Study 1

3.1. Method

Study 1 used a narrative recall task to examine whether participants' recollections of violent situations and their levels of self-control at the time predict the likelihood of engaging in aggression that participants either desired but felt was morally wrong or did not desire but felt was morally required. The study employed a 2 × 2 within-subjects design.

Using the online Mechanical Turk platform, participants ($N = 95$ [53 women, 41 men, 1 non-identified]) were asked to write about four past experiences (see Supplemental information). For two of the experiences, participants were asked to write about a time when they wanted to act aggressively but knew that they should refrain from doing so. In writing about these two experiences, participants were further asked to describe one instance in which they successfully overcame their aggressive urges by refraining from aggression and one instance in which they failed to do so. These conditions are a replication of prior research that found that decreased self-control predicted increased aggression when recalling past experiences (DeWall et al., 2007, study 5). The two other experiences that participants were asked to write about are similar, except in these cases, participants were told to recall a time when they knew they should have acted aggressively, but did not wish to. In writing about these two experiences, participants were further asked to describe one instance in which they successfully overcame their non-aggressive urges by engaging in aggression and one instance in which they failed to do so. After writing about each experience, participants were presented with a 10-item state measure of

self-control depletion in which participants reported how much self-control they felt they had at the time of the experience (e.g. “At the time I felt drained.” At the time, I felt like my willpower was gone.”) on an eleven-point Likert scale ranging from 1 (strongly disagree) to 11 (strongly agree). This measure was employed to replicate DeWall et al. (2007), even though psychometric properties of the scale are unavailable. The utility of this state measure of self-control is for assessing levels of self-control that a person experienced in a specific situation at a specific point in time.

3.2. Results

Seventeen participants did not complete all measures because they could not think of experiences for all four categories and so they are not included in the interaction analysis, yielding a sample of 78 participants for the interaction analysis. When data from these participants was included in the simple effects analyses, the significance and pattern of results did not change. Scores on some items were reverse-coded so that higher scores indicate greater self-control.

A two-way within-subjects ANOVA analysis revealed a significant interaction between desire to aggress and engagement in aggression on self-control [$F(1,77) = 18.20, p < .001, \eta_p^2 = 0.191$]. Simple effects analyses revealed that when participants felt they should not aggress, they experienced greater self-control when they did not aggress ($M = 7.13, SD = 1.96$) than when they did aggress ($M = 6.31, SD = 2.04; F(1,86) = 12.59, p < .001, \eta_p^2 = 0.128$), replicating previous research. However, when participants felt they should aggress, they experienced greater self-control when they did aggress ($M = 7.50, SD = 1.93$) than when they did not aggress ($M = 6.82, SD = 1.79; F(1,83) = 6.99, p = .010, \eta_p^2 = 0.078$). There was no difference in self-control between experiences in which aggression occurred ($M = 6.91, SD = 1.99$) and experiences in which aggression did not occur ($M = 6.97, SD = 1.91, p = .726$). There was no effect of participant sex or other demographic variables (Fig. 1).

4. Study 2

One limitation of Study 1 is that retrospective assessment may have biased participants toward reporting greater self-control when they carried out their goals, violent or non-violent. One way to address this limitation is to manipulate the desirability and morality of aggression and examine how they relate to trait levels of self-control that should reflect stable patterns across time and situations. In addition, it is possible that the participants did not construe situations as instructed, and so a follow-up study in which a concrete situation and motivations

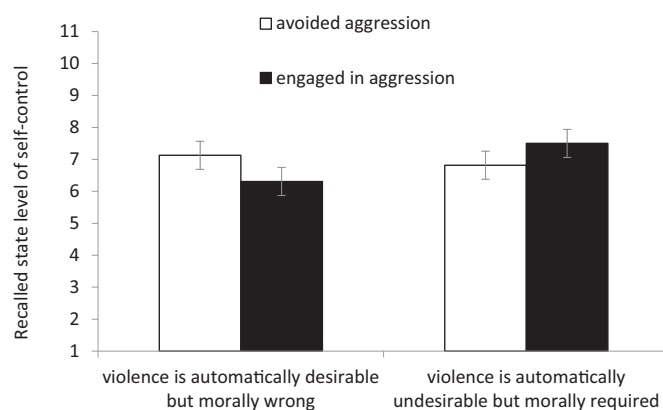


Fig. 1. Recalled state level of self-control as a function of whether violence is desirable but morally wrong or undesirable but morally required and whether the participant engaged or did not engage in aggression. Error bars represent the 95% confidence intervals.

are provided would strengthen the conclusions.

4.1. Pilot study

Using the Mechanical Turk platform, I first conducted a pilot study to determine if participants view costly moral violence in defense of a stranger as more undesirable and more morally acceptable than costly moral violence in response to a provocation against oneself. A new set of participants ($N = 193$ [82 women, 111 men]) were presented with one of two hypothetical scenarios. In the second-party scenario, participants were told to imagine that “someone pushes and begins fighting with you for no reason”. In the third-party scenario, participants were told to imagine that “someone pushes and begins fighting with a stranger for no reason.” Participants in both conditions were then presented with two questions that asked “To what extent would you feel the desire to fight even if doing so might get you hurt” and “To what extent is it morally virtuous to fight even if doing so might get you hurt” either for themselves or on behalf of a stranger depending on condition. Desirability was scored on a seven-point Likert scale ranging from 1 (not at all desirable) to 7 (extremely desirable), while morality was scored on a seven-point Likert scale ranging from 1 (not acceptable to fight) to 7 (morally virtuous to fight).

It was found that participants rated aggression for themselves as more desirable ($M = 5.21, SD = 1.66$) than aggression on behalf of a stranger ($M = 3.81, SD = 1.85; t = 5.54, p < .001$), but they rated aggression on behalf of a stranger as more virtuous ($M = 5.42, SD = 1.48$) than aggression for themselves ($M = 4.93, SD = 1.63; t = 2.19, p = .030$). These results suggest that shifting from second party to third party costly moral violence can be used to manipulate the desirability and morality of violence.

4.2. Method

To test the primary hypothesis that undesirable, morally required violence is associated with greater self-control, Study 2 used a hypothetical judgment task to examine whether trait levels of self-control predict decreased support of second-party costly moral violence and increased support of third-party costly moral violence. The study employed a between-subjects design. Using the Mechanical Turk platform, a new set of participants ($N = 233$ [97 women, 133 men, 4 non-identified]) were presented with one of two hypothetical scenarios.

In the second-party scenario, participants were told:

Imagine that you are at a bar and a guy starts insulting you for no good reason and shoves you into a table. You absolutely want to shove the guy back, but you can also tell that will lead to a fight. At this point, you can either leave the bar or get into a fight.

In the third party scenario, participants were told:

Imagine that you are at a bar. Nearby, you notice a guy being bullied by a couple of larger men. One of the men shoves him into a table. You know you should go over there and try to break it up, as the guy doesn't stand a chance on his own, but you can also tell that there is no chance to resolve this peacefully. So if you go over there, you will have to fight and you may get hurt too. At this point, you could stay out of it, or you could intervene, fight, and possibly get hurt to help a stranger.

After reading the scenario they were presented with, participants in each condition indicated how likely they would be to fight under those conditions on a seven-point Likert scale ranging from 1 (not at all likely) to 7 (extremely likely). After indicating their likelihood to aggress, participants completed the 13-item trait brief measure of self-control (Tangney, Baumeister, & Boone, 2004), wherein they reported their overall levels of self-control in life (e.g. “I have a hard time breaking bad habits.” “I wish I had more self-discipline.”) on a five-point Likert scale ranging from 1 (not at all like me) to 5 (very much

like me). The trait-self control scale has high internal consistency (Cronbach's alpha = 0.83) and test-retest reliability at three weeks (0.87). Scores on some self-control items were reverse-coded so that higher scores indicate greater self-control. The utility of this trait measure of self-control is for assessing general levels of self-control that a person is thought to experience in a stable fashion across time and situations.

4.3. Results

Twenty participants did not complete all measures and were excluded from analyses, yielding a final sample of 213 participants for these analyses. When a missing case analysis of data from these participants was included, the significance and pattern of results did not change.

In line with the primary hypothesis, higher levels of trait self-control predicted greater aggression in the third-party violence scenario ($N = 105$, $r = 0.21$, $p = .036$). Higher levels of trait self-control did not predict aggression in the second-party violence scenario ($N = 108$, $r = -0.18$, $p = 0.067$). Most importantly, the two correlations were significantly different from each other ($z = 2.78$, $p = .005$), indicating that when violence is more undesirable but also morally required, it is associated with greater rather than lesser self-control compared to violence that is more desirable but less righteous. For men, higher levels of self-control predicted both more support for aggression in the third-party scenario ($N = 63$, $r = 0.27$, $p = .030$), and less support for aggression in the second-party scenario ($N = 62$, $r = -0.25$, $p = .050$), as hypothesized. While relationships were in the hypothesized direction for women, levels of self-control were unrelated to support for aggression in either the third-party scenario ($N = 40$, $r = 0.14$, $p = .384$) or the second-party scenario ($N = 44$, $r = -0.07$, $p = .649$). There were no significant differences in trait levels of self-control between participants who responded to the third-party violence scenario ($M = 3.43$, $SD = 0.76$) and participants who responded to the second-party violence scenario ($M = 3.38$, $SD = 0.70$; $p = .659$). Participants were more likely to endorse aggression in the third-party scenario ($M = 3.81$, $SD = 1.70$) than in the second-party scenario ($M = 3.12$, $SD = 1.84$; $t = 2.97$, $p = .003$). While the relationship between lower self-control and second-party aggression is not significant across the entire sample, it is secondary to the primary hypothesis, and may result from the inclusion of costly harm, which may have activated self-control mechanisms (Rawn & Vohs, 2011).

5. Discussion

Across two studies, it was found that when people have non-violent urges that they must overcome in order to engage in aggression they feel is morally required, aggression is associated with higher levels of self-control. In Study 1, participants recalled having greater self-control during experiences in which they engaged in aggression they did not desire but felt was morally required compared to experiences in which they refrained from such aggression. In Study 2, it was found that higher levels of trait self-control predict greater support for aggression in hypothetical scenarios in which violence is described as undesirable but morally necessary. These findings represent the first empirical evidence demonstrating that higher levels of self-control are associated with increased aggression that people feel morally responsible for but do not desire.

5.1. Limitations

These studies do not manipulate self-control and therefore do not test the causal claim that greater self-control increases undesirable, morally required violence. The most prominent technique for manipulating self-control is to use an ego-depletion task wherein participants engage in an initial task that reduces participants' self-control prior to

engaging in a second task. However, recent meta-analyses have suggested that these manipulations may not create reproducible effects or are lacking in statistical power (Carter, Kofler, Forster, & McCullough, 2015; Hagger et al., 2016), while theoretical analyses have questioned whether self-control is best conceptualized as a limited resource at all (Fujita, 2011; Inzlicht, Schmeichel, & Macrae, 2014). Future research should manipulate self-control to examine its effect on undesirable, morally required violence once clarity emerges in regard to current empirical and conceptual questions regarding experimental paradigms of self-control.

Results from Study 2 suggest a novel distinction between second-party and third-party aggression, but it should be noted that stronger moral prescriptions for third-party compared to second-party aggression may be grounded in cultural norms that are not universal (Nisbett & Cohen, 1996). There may also be other kinds of moralistic aggression that are nonetheless facilitated through greater self-control. Alternatively, it is possible that these particular conditions, in which aggression is undesirable but morally required, may be relatively limited as people often have automatic desires to behave prosocially (Rand, 2016). In addition to moral motives, overcoming fear, disgust, and other inhibitions in order to aggress for reasons of self-defense, hunting, or other survival-related concerns may reflect cases in which self-control is necessary to overcome non-moral inhibitions in order to commit acts of violence. At the same time, people may consume alcohol or engage in other strategies that weaken inhibitions against violence prior to aggressing as a way to "calm their nerves." Future research should examine the mechanisms by which people both weaken their inhibitions while simultaneously exercising self-control to overcome their inhibitions in order to engage in undesirable, morally required violence.

Reliance on American samples drawn from Mechanical Turk present additional limitations in this context. While responses from the same IP address were disqualified, it is possible that participants may have retaken the survey on different devices. In addition, contemporary American samples may have less experience with aggression and violence than populations in other cultures and historical contexts, potentially attenuating the results. The results of Study 2 should also be interpreted with caution. There was no significant relationship between reduced self-control and increased willingness to aggress in the second-party scenario across the sample. In addition, the effects were significant for men but did not reach significance for women. This pattern may have been a consequence of the scenarios focusing on physical aggression, but it was not hypothesized a priori. More broadly, these are the first results to associate greater self-control with increased aggression, and studies 1 and 2 rely on different measures that focus on different aspects of self-control. Potential moderating factors such as baseline levels of aggression, moral preferences, and emotion regulation were not measured. Future studies would benefit from replicating these effects using a broader set of materials and participants in order to establish greater statistical power and to identify the exact conditions wherein higher self-control predicts increased aggression. Such an approach would help to illuminate potential points for intervention or prevention of aggression.

5.2. Implications

The findings appear to run counter to the literature linking decreased self-control to increased reactive aggression in response to provocation, as well as some of the literature that finds no association between self-control and proactive aggression. As I have argued, the same violent action will interact with self-control differently depending on the motives of the perpetrator. Reactive aggression is automatically desired but perceived as morally wrong upon reflection. When those conditions are met these data suggests that aggression is more likely to be associated with decreased self-control, just as self-regulatory theories of aggression suggest. Proactive aggression may not be

automatically desired, but it is also not necessarily perceived as morally wrong upon reflection. Under these conditions, there is no motivation to engage self-control to inhibit aggression, but there are also no moral inhibitions against aggression that must be overcome through self-control. In contrast to these kinds of aggression, ethnographic and historical evidence suggests that people sometimes have an automatic aversion to violence that they feel they must overcome because upon reflection they perceive the violence as morally righteous. Whether it be soldiers killing enemies or parents physically disciplining children, some perpetrators feel an aversion to their actions, but carry through with them anyway because they believe they should (Fiske & Rai, 2014; Rai & Fiske, 2012). Under these conditions, a different relationship between self-control and aggression appears to emerge. Thus, these results contribute to a larger discussion about how theories of morality and aggression shift when people see their actions as morally motivated (Rai, Valdesolo, & Graham, 2017). When perpetrators perceive aggression as aversive but morally necessary, the path to violence may require more, rather than less, self-control.

Declaration of Competing Interest

The author declares no conflicts of interest.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.paid.2019.05.046>.

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