

Aggression As Successful Self-Control

David S. Chester

Department of Psychology

Virginia Commonwealth University

In press at *Social and Personality Psychology Compass*

Correspondence should be addressed to:

David S. Chester

308 Thurston House

Virginia Commonwealth University

Richmond, VA, 23284, USA

1-804-828-7624

dschester@vcu.edu

Author Note

This research was supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) of the National Institutes of Health under award number K01AA026647 (PI: Chester). I declare no conflicts of interest related to this manuscript.

Abstract

A dominant narrative is that aggression starts when self-control stops --- unchecked aggressive impulses manifest in violence as self-control fails to inhibit them. Yet this 'low self-control syndrome' approach to aggression fails to accommodate numerous findings in which aggression arises from *successful* self-control. I summarize these key findings while identifying how current theories of aggression can be molded to accommodate them. This balanced perspective, which allows aggression to arise from successful and unsuccessful self-control, suggests exciting new hypotheses alongside confounding questions for aggression and self-regulation scholars. It also supports ongoing and broader paradigm shifts away from treating self-control as a purely adaptive and desirable psychological capacity and toward approaching self-control interventions with greater care, as they may amplify aggression instead of reducing it, with costly consequences.

Keywords: aggression, aggressive behavior, revenge, violence, self-control, impulse control, self-regulation

Social psychology's most infamous experiments on social influence were also often studies of aggression, beginning with Milgram's (1963) obedience study. In this experiment, participants were urged to continue to repeatedly shock a man who clearly did not want to be harmed any further. Although most of the participants ultimately complied, it was far from easy for them to do so. Study session transcripts from Milgram (1974) painfully illustrate how participants pleaded with the experimenters to discontinue the study and expressed clear desires not to administer any further shocks. It is not difficult to imagine that the aggression the participants inflicted upon the target was the result of a substantial exertion of self-control over their impulses not to aggress.

It is similarly easy to conjure hypothetical examples of aggression resulting from the successful deployment of self-control over one's immediate desires: a pacifist sets aside their non-violent convictions and strikes the jerk who has insulted them all evening; a slighted ex-employee spends diligent hours (that they would rather spend relaxing) planning out the destruction of the boss who fired them; a profoundly fearful teenager summons the courage to fight their friend's bully; a soldier deftly employs their years of training to assail multiple military targets in a foreign battlefield despite their gnawing fears that the war is unjust. Yet such self-controlled aggression seems absent from the aggression literature. Is there evidence that aggression can be, to a meaningful extent, the product of successful self-control? In what follows, I argue that aggression's relationship with self-control is more nuanced than the literature would suggest. The primary purpose of this paper is not to assail the claim that self-control failure can and does cause aggression, it can and it does (Denson et al., 2012). Instead, my main goal is to make a parallel case that aggression also can and also does often arise alongside

and because of successful self-control.

Definitions

Aggression is not always a rash act borne upon the unleashed winds of impulse. Here I define *aggression* as any attempt to harm another person who does not want to be harmed (Allen & Anderson, 2017). In relation to self-control, aggression is most often construed as the result of an impulse that is best inhibited in service of the ultimate goal of not harming others (Denson et al., 2012). As such, aggression is almost always presented as a self-control failure and a robust literature has arisen around this perspective. This approach holds across operationalizations of aggression as individual acts (i.e., state-level aggression) and broader patterns of behavior across time and situations (i.e., trait-level aggression).

Self-control is a self-regulatory state that reflects the effortful psychological process through which people inhibit immediate impulses in service of ultimate goals (Inzlicht et al., 2021; Milyavskaya & Inzlicht, 2017). In this sense, self-control can be *successful* when impulses are inhibited in favor of ultimate goals and it can be a *failure* when impulses are not fully inhibited, subverting ultimate goals. Self-control is an essential element to other self-regulatory and executive functioning processes, such as the inhibition of short-term desires and impulses to facilitate long-term planning and effective goal pursuit. Further, self-control can manifest as a dispositional trait, though it is crucial to note that trait and state self-control are not consistently correlated with one another and are not interchangeable (Milyavskaya et al., 2019).

A Dominant Narrative: Aggression as Self-Control Failure

Aggression is most often interpreted as a form of self-control *failure* (i.e., an

inability of self-control to successfully inhibit aggressive impulses from becoming aggressive behavior) and not self-control success (Denson et al., 2012; DeWall et al., 2011). To demonstrate this, a Google Scholar search using the terms “aggression” and “self-control” on February 14th, 2023, revealed that of the first 50 results, all 49 of the relevant¹ articles framed aggression as the result of self-control failure and not success. Aggression scholars often intone sentiments such as ‘aggression starts when self-control stops’ and publish papers with titles such as “*Self-Control Inhibits Aggression*” (DeWall et al., 2011) --- obscuring the notion that self-control can facilitate aggression. These statements are true to a point, indeed poor self-control is often a crucial cause of aggression and they rest upon a strong foundation of past findings.

The ‘Low Self-Control Syndrome’ of Aggression

There is no doubt that impaired self-control can and does promote aggressive behavior. Indeed, there is a host of evidence to support the argument that self-control is both correlated with and causally implicated in reduced aggression, which is expertly summarized elsewhere (see Denson et al., 2012; DeWall et al., 2011; Finkel & Hall, 2018). This body of work is distilled into the ‘low self-control syndrome’ of aggression (DeLisi et al., 2018), which posits that aggression is a behavioral phenotype typified as arising from poor self-control and self-control failure. These conceptualizations comport with human intuitions regarding psychological conflicts between ‘good versus bad’ and ‘love versus hate’ (Melnikoff & Bargh, 2018) --- with bestial, malevolent impulses pitted against sophisticated, benevolent control processes. This may explain the fast adoption and lasting durability of the field’s acceptance of the low self-control syndrome of

¹ One article did not examine or discuss self-control and aggression in relation to each other, they examined both of their effects of ‘video game addiction’.

aggression. Yet, the strength of the empirical evidence for this narrative is less strong than one might expect.

Meta-analytic correlations between trait self-control and antisocial behavior tend to be tepid (De Ridder et al., 2012). Self-control training interventions have not proven effective in reducing anger (Beames et al., 2020) or aggression (Beames et al., in press). Neurostimulation studies that sought to experimentally modulate activity in regulatory regions of the prefrontal cortex seemed initially effective at reducing aggression but have since been plagued by issues with poor replicability (e.g., Dambacher et al., 2015). Taken together, the evidentiary basis for the low self-control syndrome of aggression is perhaps less robust than has been accepted. It is unclear whether these null effects have arisen from methodological limitations (e.g., poor operationalizations), the inaccuracy of the low self-control syndrome itself, or some combination thereof. Indeed it may be that this mixed evidence reflects the fact that aggression can arise from self-control failure *and* success.

Aggression as Successful Self-Control

The aggression literature is not devoid of arguments that self-control can facilitate aggression. Indeed, some papers do explicitly mention that aggressive behavior can also reflect self-control success (e.g., Denson et al., 2012) --- yet these are often cursory statements that contain little explication for how self-control might facilitate aggression. This paper will fill this gap in the literature by summarizing a growing body of evidence that argues that a meaningful share of aggression is the result of self-control success. But how much aggression is due to self-control success relative to failure? Well-validated statistics on the relative prevalence rates of self-

controlled versus impulsive aggression do not yet exist, so it remains unclear how much harm-doing is largely the result of one or the other. Yet, there exists a long-standing literature that claims to implicate successful self-control in a substantial proportion of human aggression.

Proactive Aggression

One of the primary distinctions in aggressive behavior is whether it is reactive or proactive (Bushman & Anderson, 2001; Raine et al., 2006). Reactive aggression refers to the 'hot' (i.e., emotional), hostile, and provocation-driven form of aggression. Conversely, proactive aggression refers to harm-doing that is 'cold' (i.e., emotionless), planned, serves a broader goal, and is premeditated. On its face, proactive aggression appears to be the self-controlled form of aggression that is largely absent from the literature. Yet measures of proactive aggression are negatively correlated or uncorrelated with self-control (Cen et al., 2022; Dambacher et al., 2015; Miller & Lynam, 2006) and positively correlated with trait impulsivity (Cruz et al., 2019; Mathias et al., 2007; Steinberg et al., 2013). It therefore appears that the distinguishing factor between reactive and proactive aggression is not the presence or absence of self-control. As such, proactive aggression and the literature and measures that have been built around this construct do not capture self-controlled aggression. Instead, current proactive aggression measures may capture aggression that arises from a broad array of more ultimate goals and motives, as opposed to the proximate retaliatory motives captured by the reactive aggression scales. On the Reactive-Proactive Aggression Questionnaire (Raine et al., 2006), proactive items such as "*had a gang fight to be cool*" and "*used force to obtain money or things from others*" clearly invoke distal goals such as status-

seeking and resource acquisition, whereas reactive items such as “*reacted angrily when provoked by others*” do not. This pattern also appears for the Impulsive/Premeditated Aggression Scale (Stanford et al., 2003), with similar content themes among premeditated items (e.g., “*the act led to power over others or improved social status for me*”, “*I feel my actions were necessary to get what I wanted*”). As quantified by these measures, proactive aggression reflects aggression as a ‘means to an end’ that is focused on ultimate goals and reactive aggression reflects aggression as an impulse, ‘the means and the end’. When ultimate goals and impulses do not conflict (i.e., when aggression is an acceptable approach to accomplishing the broader goal), then self-control is not required (Milyavskaya & Inzlicht, 2017). This may be the underlying reason that proactive aggression measures do not correspond to measures of self-control, leaving it unclear whether a truly ‘controlled’ form of proactive aggression exists until the arrival of more valid assessments. Though this possibility of ultimate motives versus impulses being the distinguishing component of proactive and reactive aggression, and not self-control, requires further investigation. Further, well-validated measures of self-controlled aggression are sorely needed to better understand this behavioral phenotype and estimate its prevalence.

Newer Findings

Aggression and conscientiousness. If aggression is more often a product of self-control failure than success in the trait domain, then it follows that dispositionally aggressive people should also exhibit low levels of dispositional self-control. Articulated within the Five Factor Model (FFM; Digman, 1990) of personality, trait self-control is best construed as a lower-order facet of the conscientiousness domain (Costantini &

Perugini, 2016; Roberts et al., 2014; Werner et al., 2019), though it also includes aspects of other FFM domains. If the low self-control syndrome is accurate, one of trait aggression's strongest FFM correlates should be conscientiousness. Yet, its dominant personality correlate was agreeableness, followed by neuroticism, and then distantly by conscientiousness, openness, and extraversion (Chester & West, 2020). This same pattern of relative FFM correlation strengths was also replicated with dispositional vengefulness (Chester & DeWall, 2018) and in large-scale studies on the personality correlates of aggression (Bainbridge et al., 2022). Indeed, the meta-analytic association between aggression and agreeableness was $r = -.33$, whereas its correlation with conscientiousness was just $r = -.18$ (Jones et al., 2011). Even when these associations were broken down into the individual FFM facets, the 'self-discipline' facet of conscientiousness that most closely maps onto trait self-control, exhibited a meta-analytic correlation with aggression of only $r = -.07$ (Vize et al., 2018). Meanwhile, agreeableness facets exhibited meta-analytic correlations that ranged from $r = -.17$ to $-.37$. Meta-analytic correlations of FFM domains with *laboratory*-assessed aggressive behavior revealed an aggression-agreeableness association of $r = -.20$ and a non-significant aggression-conscientiousness association of $r = -.04$ (Hyatt et al., 2019). Network analyses placed trait aggression well within the core of an agreeableness network, but it was unable to be localized within a conscientiousness network (Schwaba et al., 2020). Taken together, these findings point away from the dominance of self-control-based (DeWall et al., 2011) and negative-affect-based (Berkowitz, 1988) models of trait aggression, and instead point towards the antagonistic motives and interpersonal styles that characterize low agreeableness and antagonism.

Psychopathy and the development of self-control. One of the most aggressive psychological phenotypes is reflected in psychopathy. *Psychopathy* entails a dispositionally callous and exploitative interpersonal style that exists along a broad continuum (Hare, 1999; Lynam & Miller, 2015; Miller & Lynam, 2003). Psychopathic individuals are often highly aggressive, comprising a disproportionate amount of violent criminal offenders (Reidy et al., 2015). Even assessed among non-offender populations such as college students, psychopathy is reliably and strongly correlated with greater aggressive behavior (Donnellan & Burt, 2016). In addition to their antagonistic and aggressive tendencies, psychopathic individuals often vary along another dimension --- heightened or diminished self-control (Mullins-Sweatt et al., 2010). 'Unsuccessful' psychopathic individuals are often disinhibited and impulsive, frequently becoming incarcerated or otherwise adversely involved with the criminal justice system (Hare, 1999). Conversely, 'successful' psychopathic individuals do not exhibit significant impulsivity and are able to integrate into society, sometimes rising to its highest echelons (Lilienfeld et al., 2015). Indeed, 'successful' psychopathic individuals tend to develop self-control *faster* than their less psychopathic counterparts, an impulse control trajectory that might compensate for their need to regulate their heightened antagonistic urges (Lasko & Chester, 2020). In addition, trait psychopathy among 'successful' individuals was positively correlated with gray matter density in the left and right hemisphere of the ventrolateral prefrontal cortex, a cortical region that is most reliably implicated in inhibitory self-control (Lasko et al., 2019). These findings fit with a host of others that find intact and high-functioning self-regulation among psychopathic individuals (e.g., Bronchain et al., 2020; Shane & Groat, 2018). Yet the mere presence

of robust self-control among psychopathic individuals does not necessarily entail a causal effect, whereby their self-control *facilitates* greater aggression. Indeed, it may even be the case that the self-control of 'successful' psychopathic individuals serves only to inhibit their aggression. Yet more likely than this inhibitory account is the idea that their self-control instead serves to alter *the form*, not the severity, of aggression (i.e., facilitates a switch from overt-physical aggression to more subtle-relational aggression; Gao & Raine, 2010). Overall, this ability for self-control and aggressiveness to coincide within psychopathic individuals is correlational evidence of how aggressive behavior does not merely emerge among those with dysregulated impulsivity.

Prefrontal control and aggression. A central pillar of the low self-control syndrome is that aggression is constrained by heightened activity in regions of the brain's prefrontal cortex (PFC) that subserve executive control over impulses (Denson et al., 2012). Yet, many functional brain imaging studies have found *heightened* PFC activity during acts of aggression. Such studies initially observed greater aggression-related activity in ventromedial and dorsomedial PFC (e.g., Lotze et al., 2007). A subsequent systematic review of the literature expanded upon these early results by also showing reliable recruitment of both the ventrolateral and dorsolateral PFC during acts of aggression, alongside other key nodes of the frontoparietal executive control network (Fanning et al., 2017). There exists the possibility that these associations between aggressive behavior and prefrontal recruitment merely reflect a greater *attempt* at self-regulation that ultimately fails. Yet, given the overwhelming evidence linking such prefrontal activity to successful self-regulation rather than failures (Friedman & Robbins, 2022), this possibility is unlikely. With this important caveat in mind, these findings

provide converging neurobiological evidence for the role of self-control success in aggression.

Vengefulness and delay of gratification. Much of aggression exists in the form of revenge (Anderson & Bushman, 2002). In order to seek revenge in the longer run, the vengeance-seeker needs to not only premeditate their vengeful approach, but to also inhibit any impulse towards immediate retribution. Indeed, this ability to delay gratification is one of the most central psychological mechanisms underlying self-control (Mishra & Lalumière, 2017). Reflecting this ability to inhibit immediate impulses in service of broader vengeance-based goals, we found that vengeful people were actually *more* prone to premeditation than less vengeful people, not less (Chester & DeWall, 2018). In a separate series of six studies where participants repeatedly chose between acts of immediate or delayed revenge, a full 42% of participants exhibited an ability to inhibit preferences for immediate retaliation and chose instead to opt for delayed yet greater vengeance (West et al., 2022). Mouse-tracking software revealed little conflict during selections of the immediate retaliation option, whereas we observed greater conflict when participants selected the delayed revenge option (i.e., mouse cursors exhibited a clear initial trajectory towards the immediate option, which had to be overcome to select the delayed option). This ability to engage self-control in order to wait for greater revenge was elevated when the target of aggression previously provoked participants and among participants who were prone to angry rumination, physical aggressiveness, and sadism, suggesting that people who are most motivated to inflict severe retributive harm are able and willing to recruit effortful self-control in its pursuit.

Implications for Theories of Aggression

Theories are valuable and useful insofar as they are able to accommodate new and accumulating evidence. Below, I examine several of the most relevant theories of aggression in light of this new evidence for self-controlled aggression.

General Aggression Model

The General Aggression Model (GAM; Anderson & Bushman, 2002; DeWall & Anderson, 2011; DeWall et al., 2011) is the preeminent meta-theoretical framework for aggression. It articulates the temporal sequence of processes that determine how a person engages in aggression or not, broadly categorizing them into ultimate (e.g., genetic risk, sociocultural context, personality) and proximate (e.g., situational factors, affective states, appraisal) processes based on their temporal proximity to the potentially aggressive event. A strength of the GAM is that it allows aggression to manifest as an ‘impulsive’ or ‘thoughtful’ action and allows that people can carry “out a thoughtful action, which can be aggressive or non-aggressive” (Allen et al., 2018, p. 78). Despite this welcome affordance for aggression to be the result of self-regulatory success, the GAM does not explicitly articulate a role for self-control. This marked absence of self-control is an area of conceptual concern given the importance that the field has placed on the low self-control syndrome of aggression. So where would self-control reside within the GAM for it to inhibit or promote aggression? The candidates are myriad, as self-control exists both at the ultimate level (as a trait) and proximate level (as a state). Indeed, trait self-control is a personality trait with strong heritability (Willems et al., 2019) and state self-control can be flexibly recruited throughout a potentially aggressive interaction (Denissen et al., 2017). Yet self-control’s most potent effect

would clearly be exerted just prior to the decision to aggress. More work is needed to empirically identify self-control's home within the GAM and whether its influence is most felt in the moments just before aggression is enacted or avoided.

General Theory of Crime

The General Theory of Crime posits that at the heart of most crimes, violent and non-violent, is poor self-control in the face of a tantalizing opportunity for personal gain (Gottfredson & Hirschi, 1990). This influential theory has elevated self-control failure to the highest levels of psychological culprits underlying aggression and violent crime. This perspective argues that low self-control fosters violent and other crimes by focusing individuals on the present. This assertion stands in stark opposition to clear evidence for how a self-control-facilitated focus on the future can *promote* aggressive inclinations (West et al., 2022). The General Theory of Crime does not readily allow such instances of successful self-control to promote aggression. In the face of this new evidence that aggression can arise from future-focused successful self-control, and in combination with other critiques (e.g., it places the burden upon individuals and not upon broader sociocultural structures such as systems of oppression; Miller & Burack, 1993), the General Theory is evidently one incomplete side of a more complex conceptual coin.

I³ Model and Beyond

The I³ Model of aggression posits that harmful behavior is the product of a delicate balance between aggression-driving urges (i.e., instigating triggers and impelling forces) and the inhibition of those impulses (Finkel & Hall, 2018). Instigating triggers reflect environmental features that motivate people to aggress, whereas impelling forces reflect other variables that render an aggressive response to instigation

more likely to occur. According to the perfect storm theory that is derived from the larger I³ Model, aggression is most likely when instigation is high (e.g., someone has provoked you), impellance is high (e.g., you are prone to angry reactivity), and inhibition is low (e.g., your self-control is impaired by lack of sleep). This model grants a purely aggression-reducing role for inhibition, balancing it against aggressive urges that arise from instigation and impellance.

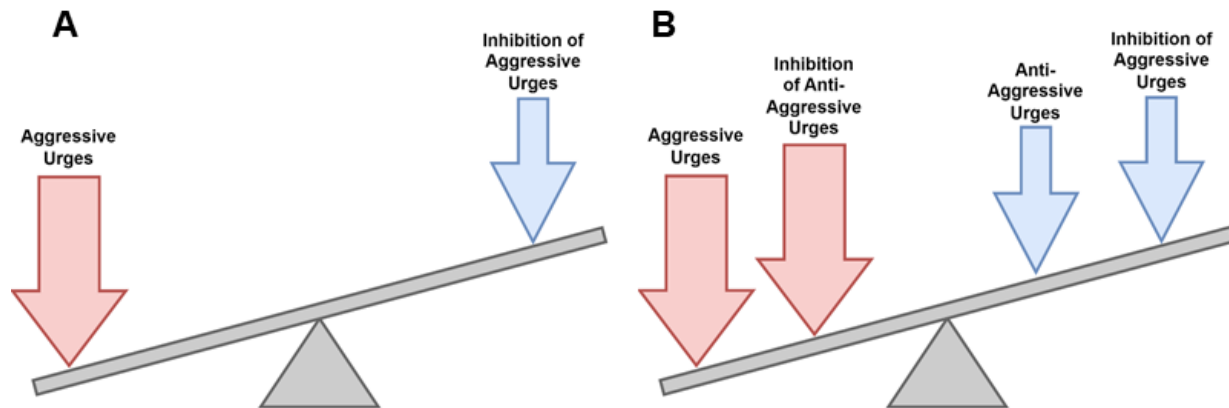
A recent theoretical development has arisen that challenges this central aspect of the I³ Model --- the *patient storm theory* (West et al., 2022). According to this theoretical approach, harmful retaliatory aggression can also arise in the presence of high instigation, high impellance, and *high* inhibition. For instance, aggression was most severe in when participants were provoked by their opponent (i.e., high instigation), when they were high in antagonistic traits (i.e., high impellance), and when they were able to inhibit their desire for immediate revenge and effortfully select the delayed vengeance option (West et al., 2022). It is therefore clear that inhibition can foster aggression and there is a verdant field of hypotheses to test surrounding how impellance and instigation might interact with *successful* inhibitory self-control to foster aggression.

Revisions to the balance approach of I³. A revised approach to the countervailing forces articulated in the existing I³ Model (depicted in Figure 1A) should accommodate the balancing (and de-balancing) influences of urges *not* to aggress (i.e., anti-aggressive urges), as well as inhibitory factors that *facilitate* aggression by arresting anti-aggressive urges (Figure 1B). In this revised approach, self-control can be employed to inhibit anti-aggressive urges in order to facilitate aggression in the pursuit

of one's own personal, ultimate goals (e.g., the broader desire to protect one's country against perceived enemies).

Figure 1

'Low Self-Control Syndrome' (panel A) and Revised (panel B) Depictions of Self-Control Processes and Aggression



Anti-Aggressive Urges

Aggressive urges and the inhibition thereof are well-known entities in psychological science. Yet *anti-aggressive urges* are relatively new and understudied. What evidence is there for such impulses away from aggression and towards non-aggressive behaviors (e.g., affiliation, distraction, flight, forgiveness, freezing, hiding, pacification, reconciliation)? There are anti-aggressive impulses that motivate people to (A) avoid confrontation and risk inherent to aggression and (B) approach potential targets of aggression in prosocial ways. Examples of the former class of *aggression avoidance impulses* that have been linked to lower levels of aggression are anxiety (Campbell & Hausmann, 2013), disgust (Pond et al., 2012), fear of the target's formidability (Archer, 2007), and low self-confidence and self-esteem (Bushman et al., 2009). Examples of the latter class of *prosocial impulses* that have been linked to lower

levels of aggression are affective empathy (Tampke et al., 2020), compassion (Batanova & Loukas, 2011), kinship (Webster et al., 2012), shared social identity (McDonald et al., 2012), and similarity with the target (Baron, 1971). For individuals with these anti-aggressive traits and experiencing such anti-aggressive states, they would need to engage substantial self-control to inhibit their anti-aggressive urges and then replace them with effortful acts of harm-doing. Their self-control 'success', not 'failure', would manifest as aggressive behavior. Certain situations license the inhibition of these anti-aggressive urges, such as obedience to authority (Milgram, 1963, 1974), the defense of others (Fehr & Gächter, 2002), and the perception of realistic and symbolic threat (Slovic et al., 2020). As it stands, there is little work examining how such anti-aggressive urges interact with self-control to promote aggression and thus, much new research is needed in this domain.

Reconceptualizing Aggression as Self-Control 'Success' and 'Failure'

In the aggression literature, self-control 'success' and 'failure' are defined such that an individual may have an aggressive urge that is either sufficiently inhibited (i.e., self-control success resulting in no aggression) or not (i.e., self-control failure resulting in aggression; Denson et al., 2012; DeWall et al., 2011). We must expand these definitions of self-control 'success' and 'failure' to include anti-aggressive urges (i.e., impulses to not aggress) and the inhibition thereof. In this more inclusive model, an individual may also have an anti-aggressive impulse or urge that is sufficiently inhibited (i.e., self-control success resulting in aggression) or not (i.e., self-control failure resulting in no aggression; Figure 2).

Figure 2

Revised Conceptualization of Aggression in Context of Self-Control Success and Failure

	Urge is Inhibited	Urge is Not Inhibited
Aggressive Urge	<p>Self-Control Success Resulting in No Aggression</p>	<p>Self-Control Failure Resulting in Aggression</p>
Anti-Aggressive Urge	<p>Self-Control Success Resulting in Aggression</p>	<p>Self-Control Failure Resulting in No Aggression</p>

Note. Green boxes reflect non-aggressive outcomes, red boxes reflect aggressive outcomes.

Implications for Aggression-Reducing Interventions

A common approach to reduce aggression is to enact interventions designed to enhance self-control. Yet studies that employ such laboratory interventions often produce null results, whether the approach takes the form of training exercises (Beames et al., in press), psychostimulants such as caffeine (Denson et al., 2012), or brain stimulation (Dambacher et al., 2015). Outside of the lab --- in classrooms, clinics, mobile phone applications, hospitals, and out in communities --- many interventions seek to

reduce real-world violence in a similar way, by improving self-control skills (e.g., Kip et al., 2021; Schippers et al., 2020; see Denson, 2015). I do not call for a stop to such interventions. However, I do encourage caution for intervention researchers and clinicians, urging them to consider the possibility that building self-control skills may facilitate or spur on aggression in some individuals. This concern is a corollary of the research I reviewed that demonstrates how self-control can facilitate aggression. Yet just because self-control can enhance aggression does not mean that it necessarily will do so. Person-oriented, repeated-assessment, and idiographic research is needed to understand if and how self-control interventions attenuate aggression for some and increase it for others. The appeal and social desirability of self-control may be one reason why this potential harm-magnifying effect of interventions has been largely overlooked.

Self-Control is Not a Universal Good (or Bad)

In what seems a mostly uncontested process, self-control has been widely accepted within psychology as a desirable and valuable mental commodity. One meta-analysis concluded that “*self-control is thus one of the most beneficial traits in personality*” (De Ridder et al., 2012, p. 92). Though it is undeniably true that self-control confers myriad benefits, it can also inflict severe costs. Maladaptive, restrictive, inhibited, and extreme manifestations of trait self-control and other aspects of conscientiousness underlie forms of psychopathology such as deficit-focused perfectionism, obsessive compulsive symptoms, and disordered eating (Samuel et al., 2023). Furthermore, self-control ‘failures’ such as impulsive and rash actions are not always maladaptive. Indeed, there is ample evidence that impulsivity is an adaptive and

functional strategy under certain conditions (Kopetz et al., 2018). It is increasingly clear that self-control is a tool, a means to accomplish various personal goals, and the *nature of the goal* is what determines whether self-control success and failure are ultimately helpful or harmful to the self and others (Baumeister & Alquist, 2009; Rawn & Vohs, 2011). Accordingly, we must move past portraying self-control as a universal good and impulsivity as a universal bad. Self-control's ability to both constrain and promote aggression is clear reason to adopt a more nuanced view of this construct, one that allows us to celebrate and harness its benefits while being wary and respectful of its consequences.

Conclusion

Most animals solve their problems with aggression, clawing their way to spoils and away from threats. That the majority of humans live in relative harmony is a modern miracle. For this achievement, laurels have been laid at the feet of self-control and the altar of willpower and their ability to inhibit our primal aggressive impulses. Yet this is one side of a story that should be expanded to include the ability of self-control to also propel us *towards* violence, generating harm where no impulse toward it began. Such a combined perspective begs critical questions --- How much of aggression is due to self-control success versus failure? Why is self-control sometimes needed for aggression to occur? What situations and environments demand self-controlled aggression? Who tends to use self-control to be aggressive? To what extent are different forms of aggression (e.g., physical versus verbal) relatively due to self-control success? What are the real-world costs of self-controlled aggression? Is self-controlled aggression more prevalent and harmful than other forms of aggression? Answering these

unknowns will dramatically change the way we conceptualize the relationship between self-control and aggression and the way we might employ self-control to make the world more peaceful.

References

- Allen, J. J., & Anderson, C. A. (2017). Aggression and violence: Definitions and distinctions. In P. Sturmey (Ed.), *The Wiley handbook of violence and aggression* (pp. 1-14). John Wiley & Sons.
- Allen, J. J., Anderson, C. A., & Bushman, B. J. (2018). The general aggression model. *Current Opinion in Psychology, 19*, 75-80.
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27–51.
- Archer, J. (2007). Physical aggression as a function of perceived fighting ability among male and female prisoners. *Aggressive Behavior, 33*(6), 563-573.
- Bainbridge, T. F., Ludeke, S., & Smillie, L. D. (2022). Evaluating the Big Five as an organizing framework for commonly used psychological trait scales. *Journal of Personality and Social Psychology, 122*(4), 749-777.
- Baron, R. A. (1971). Aggression as a function of magnitude of victim's pain cues, level of prior anger arousal, and aggressor-victim similarity. *Journal of Personality and Social Psychology, 18*(1), 48-54.
- Batanova, M. D., & Loukas, A. (2011). Social anxiety and aggression in early adolescents: Examining the moderating roles of empathic concern and perspective taking. *Journal of Youth and Adolescence, 40*, 1534-1543.
- Baumeister, R. F., & Alquist, J. L. (2009). Is there a downside to good self-control?. *Self and Identity, 8*(2-3), 115-130.
- Beames, J. R., Gilam, G., Schofield, T. P., Schira, M. M., & Denson, T. F. (2020). The impact of self-control training on neural responses following anger

- provocation. *Social Neuroscience*, 15(5), 558-570.
- Beames, J. R., Slavich, E., & Denson, T. F. (in press). Twelve weeks of self-control training does not reduce aggression. *Aggressive Behavior*.
- Berkowitz, L. (1988). Frustrations, appraisals, and aversively stimulated aggression. *Aggressive Behavior*, 14(1), 3-11.
- Bronchain, J., Raynal, P., & Chabrol, H. (2020). Heterogeneity of adaptive features among psychopathy variants. *Personality Disorders: Theory, Research, and Treatment*, 11(1), 63-68.
- Bushman, B. J., & Anderson, C. A. (2001). Is it time to pull the plug on the hostile versus instrumental aggression dichotomy? *Psychological Review*, 108(1), 273-279.
- Bushman, B. J., Baumeister, R. F., Thomaes, S., Ryu, E., Begeer, S., & West, S. G. (2009). Looking again, and harder, for a link between low self-esteem and aggression. *Journal of Personality*, 77(2), 427-446.
- Campbell, A., & Hausmann, M. (2013). Effects of oxytocin on women's aggression depend on state anxiety. *Aggressive Behavior*, 39(4), 316-322.
- Cen, Y., Su, S., Dong, Y., & Xia, L. X. (2022). Longitudinal effect of self-control on reactive–proactive aggression: Mediating roles of hostile rumination and moral disengagement. *Aggressive Behavior*, 48(6), 583-594.
- Chester, D. S., & DeWall, C. N. (2018). Personality correlates of revenge-seeking: Multidimensional links to physical aggression, impulsivity, and aggressive pleasure. *Aggressive Behavior*, 44(3), 235-245.
- Chester, D. S., & West, S. J. (2020). Trait aggression is primarily a facet of antagonism:

- Evidence from dominance, latent correlational, and item-level analyses. *Journal of Research in Personality*, 89, 104042.
- Costantini, G., & Perugini, M. (2016). The network of conscientiousness. *Journal of Research in Personality*, 65, 68-88.
- Cruz, A. R., de Castro-Rodrigues, A., Rundle, B., Berrios-Torres, I., Gonçalves, R. A., Barbosa, F., & Stanford, M. S. (2019). Versatility and exploratory psychometric properties of the Impulsive/Premeditated Aggression Scale (IPAS): A review. *Aggression and Violent Behavior*, 47, 12-20.
- Dambacher, F., Schuhmann, T., Lobbestael, J., Arntz, A., Brugman, S., & Sack, A. T. (2015). No effects of bilateral tDCS over inferior frontal gyrus on response inhibition and aggression. *PLoS One*, 10(7), e0132170.
- DeLisi, M., Tostlebe, J., Burgason, K., Heirigs, M., & Vaughn, M. (2018). Self-control versus psychopathy: A head-to-head test of general theories of antisociality. *Youth Violence and Juvenile Justice*, 16(1), 53-76.
- Denissen, J. J., Thomaes, S., & Bushman, B. J. (2017). Self-regulation and aggression: Aggression-provoking cues, individual differences, and self-control strategies. In D. de Ridder, M. Adriaanse, & K. Fujita (Eds.), *The Routledge international handbook of self-control in health and well-being* (pp. 330-339). Routledge.
- Denson, T. F. (2015). Four promising psychological interventions for reducing reactive aggression. *Current Opinion in Behavioral Sciences*, 3, 136-141.
- Denson, T. F., DeWall, C. N., & Finkel, E. J. (2012). Self-control and aggression. *Current Directions in Psychological Science*, 21(1), 20-25.
- Denson, T. F., Jacobson, M., von Hippel, W., Kemp, R. I., & Mak, T. (2012). Caffeine

- expectancies but not caffeine reduce depletion-induced aggression. *Psychology of Addictive Behaviors*, 26(1), 140-144.
- De Ridder, D. T., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, 16(1), 76-99.
- DeWall, C. N., & Anderson, C. A. (2011). The general aggression model. In P. R. Shaver & M. Mikulincer (Eds.), *Human aggression and violence: Causes, manifestations, and consequences* (pp. 15-33). American Psychological Association.
- DeWall, C. N., Anderson, C. A., & Bushman, B. J. (2011). The general aggression model: Theoretical extensions to violence. *Psychology of Violence*, 1(3), 245-258.
- DeWall, C. N., Finkel, E. J., & Denson, T. F. (2011). Self-control inhibits aggression. *Social and Personality Psychology Compass*, 5(7), 458-472.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41(1), 417-440.
- Donnellan, M. B., & Burt, S. A. (2016). A further evaluation of the triarchic conceptualization of psychopathy in college students. *Journal of Psychopathology and Behavioral Assessment*, 38, 172-182.
- Fanning, J. R., Keedy, S., Berman, M. E., Lee, R., & Coccaro, E. F. (2017). Neural correlates of aggressive behavior in real time: A review of fMRI studies of laboratory reactive aggression. *Current Behavioral Neuroscience Reports*, 4,

138-150.

Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. *Nature*, *415*(6868), 137-140.

Finkel, E. J., & Hall, A. N. (2018). The I³ model: A metatheoretical framework for understanding aggression. *Current Opinion in Psychology*, *19*, 125-130.

Friedman, N. P., & Robbins, T. W. (2022). The role of prefrontal cortex in cognitive control and executive function. *Neuropsychopharmacology*, *47*(1), 72-89.

Gao, Y., & Raine, A. (2010). Successful and unsuccessful psychopaths: A neurobiological model. *Behavioral Sciences & the Law*, *28*(2), 194-210.

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford University Press.

Hare, R. D. (1999). *Without conscience: The disturbing world of the psychopaths among us*. Guilford Press.

Hyatt, C. S., Zeichner, A., & Miller, J. D. (2019). Laboratory aggression and personality traits: a meta-analytic review. *Psychology of Violence*, *9*(6), 675-689.

Inzlicht, M., Werner, K. M., Briskin, J. L., & Roberts, B. W. (2021). Integrating models of self-regulation. *Annual Review of Psychology*, *72*, 319-345.

Jones, S. E., Miller, J. D., & Lynam, D. R. (2011). Personality, antisocial behavior, and aggression: A meta-analytic review. *Journal of Criminal Justice*, *39*(4), 329-337.

Kip, H., Da Silva, M. C., Bouman, Y. H., van Gemert-Pijnen, L. J., & Kelders, S. M. (2021). A self-control training app to increase self-control and reduce aggression—A full factorial design. *Internet Interventions*, *25*, 100392.

Kopetz, C. E., Woerner, J. I., & Briskin, J. L. (2018). Another look at impulsivity: Could

- impulsive behavior be strategic? *Social and Personality Psychology Compass*, *12*(5), e12385.
- Lasko, E. N., & Chester, D. S. (2020). What makes a "successful" psychopath? Longitudinal trajectories of offenders' antisocial behavior and impulse control as a function of psychopathy. *Personality Disorders*, *12*(3), 207-215.
- Lasko, E. N., Chester, D. S., Martelli, A. M., West, S. J., & DeWall, C. N. (2019). An investigation of the relationship between psychopathy and greater gray matter density in lateral prefrontal cortex. *Personality Neuroscience*, *2*.
- Lilienfeld, S. O., Watts, A. L., & Smith, S. F. (2015). Successful psychopathy: A scientific status report. *Current Directions in Psychological Science*, *24*(4), 298–303.
- Lotze, M., Veit, R., Anders, S., & Birbaumer, N. (2007). Evidence for a different role of the ventral and dorsal medial prefrontal cortex for social reactive aggression: An interactive fMRI study. *NeuroImage*, *34*(1), 470-478.
- Lynam, D. R., & Miller, J. D. (2015). Psychopathy from a basic trait perspective: The utility of a five-factor model approach. *Journal of Personality*, *83*(6), 611-626.
- Mathias, C. W., Stanford, M. S., Marsh, D. M., Frick, P. J., Moeller, F. G., Swann, A. C., & Dougherty, D. M. (2007). Characterizing aggressive behavior with the Impulsive/Premeditated Aggression Scale among adolescents with conduct disorder. *Psychiatry Research*, *151*(3), 231-242.
- McDonald, M. M., Navarrete, C. D., & Van Vugt, M. (2012). Evolution and the psychology of intergroup conflict: The male warrior hypothesis. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *367*(1589), 670-679.

- Melnikoff, D. E., & Bargh, J. A. (2018). The mythical number two. *Trends in Cognitive Sciences*, 22(4), 280-293.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371– 378.
- Milgram, S. (1974). *Obedience to authority: An experimental view*. Harper & Row.
- Miller, J. D., & Lynam, D. R. (2006). Reactive and proactive aggression: Similarities and differences. *Personality and Individual Differences*, 41(8), 1469-1480.
- Miller, S. L., & Burack, C. (1993). A critique of Gottfredson and Hirschi's general theory of crime: Selective (in) attention to gender and power-positions. *Women & Criminal Justice*, 4(2), 115-134.
- Milyavskaya, M., Berkman, E. T., & de Ridder, D. T. D. (2019). The many faces of self-control: Tacit assumptions and recommendations to deal with them. *Motivation Science*, 5(1), 79-85.
- Milyavskaya, M., & Inzlicht, M. (2017). Attentional and motivational mechanisms of self-control. In D. de Ridder, M. Adriaanse, & K. Fujita (Eds.), *Handbook of self-control in health & wellbeing*. Routledge.
- Mishra, S., & Lalumière, M. L. (2017). Associations between delay discounting and risk-related behaviors, traits, attitudes, and outcomes. *Journal of Behavioral Decision Making*, 30(3), 769-781.
- Mullins-Sweatt, S. N., Glover, N. G., Derefinko, K. J., Miller, J. D., & Widiger, T. A. (2010). The search for the successful psychopath. *Journal of Research in Personality*, 44(4), 554-558.
- Pond, R. S., Dewall, C. N., Lambert, N. M., Deckman, T., Bonser, I. M., & Fincham, F.

- D. (2012). Repulsed by violence: Disgust sensitivity buffers trait, behavioral, and daily aggression. *Journal of Personality and Social Psychology, 102*(1), 175-188.
- Raine, A., Dodge, K., Loeber, R., Gatzke-Kopp, L., Lynam, D., Reynolds, C., ... & Liu, J. (2006). The reactive–proactive aggression questionnaire: Differential correlates of reactive and proactive aggression in adolescent boys. *Aggressive Behavior, 32*(2), 159-171.
- Rawn, C. D., & Vohs, K. D. (2011). When people strive for self-harming goals: Sacrificing personal health for interpersonal success. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 374–389). The Guilford Press.
- Reidy, D. E., Kearns, M. C., Degue, S., Lilienfeld, S. O., Massetti, G., & Kiehl, K. A. (2015). Why psychopathy matters: Implications for public health and violence prevention. *Aggression and Violent Behavior, 24*, 214-225.
- Roberts, B. W., Lejuez, C., Krueger, R. F., Richards, J. M., & Hill, P. L. (2014). What is conscientiousness and how can it be assessed?. *Developmental Psychology, 50*(5), 1315.
- Samuel, D. B., Nagarajan, S., Balling, C. E., & Bucher, M. A. (2023). Maladaptive conscientiousness is still conscientiousness. *Journal of Research in Personality, 103*, 104334.
- Schippers, E. E., Hoogsteder, L. M., & Stams, G. J. J. (2020). Responsive Aggression Regulation Therapy (Re-ART) improves executive functioning in adolescents and young adults with severe aggression problems: A pilot study. *Journal of Forensic Sciences, 65*(6), 2058-2064.

- Schwaba, T., Rhemtulla, M., Hopwood, C. J., & Bleidorn, W. (2020). A facet atlas: Visualizing networks that describe the blends, cores, and peripheries of personality structure. *PloS One*, *15*(7), e0236893.
- Shane, M. S., & Groat, L. L. (2018). Capacity for upregulation of emotional processing in psychopathy: All you have to do is ask. *Social Cognitive and Affective Neuroscience*, *13*(11), 1163-1176.
- Slovic, P., Mertz, C. K., Markowitz, D. M., Quist, A., & Västfjäll, D. (2020). Virtuous violence from the war room to death row. *Proceedings of the National Academy of Sciences*, *117*(34), 20474-20482.
- Stanford, M. S., Houston, R. J., Mathias, C. W., Villemarette-Pittman, N. R., Helfritz, L. E., & Conklin, S. M. (2003). Characterizing aggressive behavior. *Assessment*, *10*(2), 183-190.
- Steinberg, L., Sharp, C., Stanford, M. S., & Tharp, A. T. (2013). New tricks for an old measure: the development of the Barratt Impulsiveness Scale-Brief (BIS-Brief). *Psychological Assessment*, *25*(1), 216-226.
- Tampke, E. C., Fite, P. J., & Cooley, J. L. (2020). Bidirectional associations between affective empathy and proactive and reactive aggression. *Aggressive Behavior*, *46*(4), 317-326.
- Vize, C. E., Miller, J. D., & Lynam, D. R. (2018). FFM facets and their relations with different forms of antisocial behavior: An expanded meta-analysis. *Journal of Criminal Justice*, *57*, 67-75.
- Webster, G. D., Cottrell, C. A., Schember, T. O., Crysel, L. C., Crosier, B. S., Gesselman, A. N., & Le, B. M. (2012). Two sides of the same coin? Viewing

altruism and aggression through the adaptive lens of kinship. *Social and Personality Psychology Compass*, 6(8), 575-588.

Werner, K. M., Milyavskaya, M., Klimo, R., & Levine, S. L. (2019). Examining the unique and combined effects of grit, trait self-control, and conscientiousness in predicting motivation for academic goals: A commonality analysis. *Journal of Research in Personality*, 81, 168-175.

West, S. J., Lasko, E. N., Hall, C. J., Khan, N. G., & Chester, D. S. (2022). Some revenge now or more revenge later? Applying an intertemporal framework to retaliatory aggression. *Motivation Science*, 8(1), 33-55.

Willems, Y. E., Boesen, N., Li, J., Finkenauer, C., & Bartels, M. (2019). The heritability of self-control: A meta-analysis. *Neuroscience & Biobehavioral Reviews*, 100, 324-334.