

Predicting the Probability of Violence in Actor–Target Relational Dyads: Self-Control and Interpersonal Provocations as Mutual Properties

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If disputes are ever-present in human interaction, all relational dyads contain potential offenders and targets. We theorize that each dyad partner's self-control independently influences the likelihood of violence and that low self-control will express itself in provocative behaviour. Using two waves from the Interpersonal and Conflict Resolution survey, with measures collected from each member of 443 couples, we create dyads and analyse the independent contributions of the specified variables for both would-be offenders and the potential target. We found that a potential target with low self-control was more likely to be attacked by the actor, irrespective of the actor's self-control. This effect was explained by a tendency of both partners to engage in verbally provocative behaviour. These results are supportive of self-control theory's predictions concerning the importance of target decision-making and indicate that other criminological theories can profit from considering the target's role in violent crime causation.

Key Words: victimization, self-control theory, violence, criminological theory

An intriguing direction in efforts to understand the aetiology of interpersonal violence involves establishing the extent to which an actor's choice to attack depends upon the decision-making tendencies of the potential target. Luckenbill's (1977) classic study showed how homicide incidents materialized in 'situated transactions', where choices on the part of *both* offenders and their targets caused routine disputes to turn lethal. Similarly, Felson (1993) described how dispute-related violence originated from grievances, which then escalate into verbal aggression and physical attacks and counterattacks. Since then, much empirical research on the effects of the target's behaviour explored a similar vein, with a strong focus on characteristics at the incident or event level of analysis that elevate the likelihood of violence (Berg and Felson 2019). From work such as this, it seems that a more complete theoretical understanding of interpersonal violence benefits from the consideration of the decisions of both perpetrator and target.

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As [Gottfredson and Hirschi \(2003\)](#) emphasized, however, one incident may say little about the *people* involved in any violence that occurred—or, more typically, did not occur. In fact, disputes are inevitable in social life and routinely erupt between people who interact ([Boulding 1962](#); [Averill 1983](#)). In this way, *anyone* in a relationship dyad is conceivably both a potential offender and potential target. Yet, violence is rare. Indeed, [Felson \(1993\)](#) acknowledged that aggrieved people prefer that their disputes not turn violent and thus attempt to manage matters accordingly (see also [Schreck and Berg 2021](#)). If this is so, violence may be a consequence of lapses in judgement, where disputants with poor decision-making may have a tendency to foster aggressive responses in their adversary. The potential attacker is thus but one piece of the equation. The other member of the dyad—the potential target—serves as an independent cause influencing the likelihood that the actor will attack. Thus, the quality of a potential *target's* decision-making may be a new and meaningful individual-level correlate of violence, alongside the personal and situational predictors commonly included in research on the violent offender.

Research on the aetiology of offending often takes a different view, focusing exclusively on the offender. Indeed, criminology unwittingly deflects attention from the target's influence by treating theories of offending and victimization as unrelated substantive areas (see [Hindelang et al. 1978](#); [Meier and Miethe 1993](#)). As a result, insights from victimization scholarship rarely influence theories about the offender ([Reiss 1981](#); [Schreck and Berg 2021](#)). There are few examples of criminological theories that assign causal importance to the target's actions or to their role in the formation of perceived costs to crime (e.g. [Gottfredson 1984](#); [Gottfredson and Hirschi 1990](#); [2019](#); [Wikström et al. 2012](#); [Hirtenlehner et al. 2014](#)). Most instead limit their coverage to a description of the background reasons for the criminality of the offender—e.g. socialization, genetic predispositions and psychological disorder (e.g. [Thornberry 1987](#); [Sampson and Laub 1993](#); [Agnew 2014](#)). This lack of interest in the target as an independent influence on the actor's decision to offend may reflect a deficiency of the data needed to test theories of victimization and vulnerability. Data generally contains information from the respondents (see [Schreck 1999](#); [Felson et al. 2018](#)), with no information from the persons a respondent interacts with routinely—those positioned to be the respondent's actual attacker or victim. This flaw makes it difficult to tell from the data whether a person's self-control has any effect on the risk of becoming a target. Furthermore, prior results showing effects of low self-control on victimization risk presents the reverse problem, not taking the attacker's self-control into consideration ([Turanovic and Pratt 2019](#)).

In this research, we use a dyadic approach (involving data from the potential offender, potential target and the structural aspects of their relationship) to create a theoretical test case modelling the importance of a potential target's self-control on the likelihood of experiencing violent victimization, net of the self-control of a person who has the opportunity to be the potential attacker. The dyads consist of 443 romantically involved adult couples from the Interpersonal Conflict and Resolution (iCOR) survey, but our object is focused specifically on the claims of self-control theory concerning offender and target interaction ([Gottfredson and Hirschi 1990](#)) and not the many competing explanations of intimate partner violence (e.g. [Capaldi et al. 2012](#)). A dyadic examination of violence is rare in criminology but valuable for testing theories of offender–target interaction. Consistent with prior work on dispute-related violence, we also hypothesize that the low self-control of both offender and target will express itself in a tendency on the part of each to engage in verbally provocative behaviour towards the other ([DeWall et al. 2011](#); [Felson et al. 2018](#)). We thus bridge the research linking self-control and victimization with the literature on offenders, offering an initial assessment of an actual target's independent contribution to crime causation *net* of the offender's contribution. We test our hypotheses about the target's role in violence, net of the offender's, using Actor-Partner Interdependence Models (APIM). Since the outcome variable of interest is physical violence between these part-

ners, both members of the dyad would thus be a potential offender *and* target of a self-reported violent attack.

THEORETICAL OVERVIEW

Target behaviour and the offender

A growing literature at the incident level attests to the ability of the target to affect the decision-making of the potential offender, which has a basis in routine activities theory (Cohen and Felson 1979). For instance, the choice of a person to remain home rather than be somewhere else often inspires burglars to abandon their plans (Bennett and Wright 1984; Hough 1987; van Sintemaartensdijk *et al.* 2020). Qualitative research on armed robbery (Wright and Decker 1997) and carjacking (Jacobs *et al.* 2003) shows that offenders are sensitive to the ability of targets to resist or flee. Archer and Benson (2008) used vignettes to study the effects of self-protective behaviour (e.g. deployment of weaponry and physical size differentials between adversaries) on the hypothetical decision to engage in violence (see also Fessler *et al.* 2014). Offenders thus appear to consider the defensive behaviours of their potential targets as well as target characteristics that complicate the task of committing crime.

Tedeschi and Felson's (1994) social interactionist perspective focuses with greater depth on how dispute-related verbal altercation events escalate into physical violence. While immediate defensive behaviour may certainly affect escalation (e.g. Archer and Benson 2008), the theory places much greater emphasis on the tone and conduct between the disputants. In a confrontation, the disputants are responding to a situationally induced need to control their adversary, to settle a score or to protect their own status or identity. These motivations are common among humans and do not necessitate a violent response as noted earlier. Goffman's (1971) description of how disputants engage in remedial actions to defuse potential hostilities, such as apologies and justifications, illustrates how people manipulate the tenor of a confrontation to achieve a peaceful conclusion (for a more recent example, see Barlett *et al.* 2016). Conversely, the breaching of civility by one party in a dispute appears to precipitate an assault and eventual retaliatory strike (Pruitt and Rubin 1986; Cody and McLaughlin 1988). One party may be unresponsive to the feelings of the other, for instance, because of how personal difficulties and emotional distress create psychological impediments to appropriate behaviour (e.g. Felson 1992; Schreck *et al.* 2007), or conciliatory behaviour might appear insincere (Cohen 1986; Miller 2001). The mere fact of having to confront a complaint might become a pretext to adopt an excessively hostile demeanour or become aggressive, deploying insults, threats and admonitions (Berg and Felson 2019). The implications of this literature are that the choice to respond to a dispute provocatively is: (1) generally understood by everyone to be contrary to their own interests and (2) demonstrably connected to a greater likelihood of violence.

The role of self-control in a potential perpetrator/target dyad

Given the ubiquity of everyday disputes, we assume that all relationship dyads represent *potential* attackers and targets. Assuming that violence is an unwanted outcome of one of these disputes, it follows that the choice to attack arises from a tendency of one or both disputants to make certain decision-making errors. The question thus turns to why violence is more likely in one dyad and not others. In this section, we describe the theoretical conditions under which potential offenders and targets are more likely to abandon civility and consider two elements that contribute to this decision to escalate hostilities. A first condition depends on the weakness of the potential attacker's decision-making—i.e. the actor's low self-control. A second condition is the self-control of the other party in the dyad: the potential target's self-control influences his

or her ability to *manage* an adversary. In short, contrary to the position of most criminological theories, the target, like the offender, has an unknown but potentially significant amount of autonomy with which to affect the likelihood of attack.

In [Gottfredson and Hirschi's \(1990\)](#) self-control theory, people may see force against others as attractive when they perceive immediate and easy benefits or escape from pain and when there is little obvious risk. Disputes, by definition, are painful and unwanted; force and intimidation are readily available tools to address them. Nevertheless, violence is rare in disputes in part because initiating it can become dangerous or costly to the attacker ([Gottfredson and Hirschi 1990](#); [Archer and Benson 2008](#); [Berg and Felson 2019](#)). Targets may resist with violence or even deadly force, e.g., or bystanders or police may unexpectedly intervene. People do not want to experience *being* physically attacked ([Felson 1993](#); [Schreck and Berg 2021](#)), so they too have the incentive to act in various ways to protect themselves. As [Gottfredson and Hirschi \(1990: 18\)](#) noted, 'Potential victims seek to protect themselves from the inclinations of others. They... lock doors, hide valuables..., [and] avoid provocation'. Implicit in this statement is the idea that would-be offenders are less likely to attack if they are not provoked or if potential targets do not respond to their provocation with escalation. Self-control theory thus argues that civility, or the avoidance of provocative behaviour, is fundamentally a precautionary act by the actor against suffering a physical attack.

Since both parties thus generally benefit when disputes remain civil and peaceful, self-control theory suggests that violence is more likely when there is a miscalculation on the part of one or both parties in how they choose to manage the dispute. Self-control is the tendency to consider and appreciate long-term consequences, and low self-control is the source of decision-making errors. Consistent with this, those who have low self-control tend to experience a pattern of adverse outcomes consistent with habitual poor decision-making, besides a criminal record: worse physical health, impaired future prospects and damaged relationships ([Gottfredson and Hirschi 1990](#); [Moffitt et al. 2011](#)). Although low self-control does not mean that someone will always escalate a conflict to the point of attack, per [Gottfredson and Hirschi \(2019\)](#), having low self-control makes tactics that are seemingly useful for gaining quick and certain compliance (e.g. force or intimidation) more attractive than those that are less certain or involve greater effort (e.g. negotiation or remedial action). Thus, an actor with low self-control should find it more tempting to deploy verbal aggression as a grievance tactic and even to see his or her own reliance on civility as a weakness an adversary may exploit. Likewise, high self-control is not a perfect guarantee against judgement errors, especially when faced with an adversary who is being provocative (see [Gottfredson and Hirschi 2003](#)). Nevertheless, a person who considers plausible long-term outcomes is more capable of being deterred by the risks of escalation.

Research indeed shows that self-control appears to shape how the actor perceives the situation and thus the usefulness of belligerence ([Finkel and Campbell 2001](#); [Seipel and Eifler 2010](#); [Gottfredson and Hirschi 2019](#)). For instance, [Vera et al. \(2004\)](#) found that adolescents with low self-control took a more provocative approach in difficult interpersonal encounters. Other work finds that low self-control is associated with engaging in problematic behaviours, including rule violations that lead to grievances and thus create opportunities for violence (see [Tangney et al. 2004](#); [DeWall et al. 2011](#); [Felson et al. 2018](#)). A person with low self-control not only tends to behave provocatively when aggrieved but also is more likely to provoke others into complaints and then to respond poorly to them (see [Finkel and Campbell 2001](#)). [Johnson et al. \(2020\)](#), using iCOR data, reported that actors with high levels of self-control were less likely to engage in psychological aggression against their partner—an effect which was amplified when the partner had more self-control as well (see also [Crane et al. 2014](#)).

Self-control theory also allows the actions of the *target* to shape the actor's decision to attack ([Gottfredson and Hirschi 1990](#); [Schreck 1999](#)). The potential target can reduce the likelihood

of attack by avoiding or diplomatically breaking off any possibly dangerous interactions. Self-control is relevant at this point because precautionary behaviour against crime on the part of potential targets, by definition, presupposes the ability to foresee a future and uncertain event—how a course of action might lead to victimization (Schreck 1999; Schreck and Berg 2021). Low self-control, on the other hand, makes precautionary behaviour appear less worthwhile whenever it conflicts with other competing desires—feeling good, having fun, spending time with friends, conserving personal energy and resources and so forth.

Accordingly, research has shown that those with low self-control are more likely to self-select into lifestyles and situations that produce vulnerability to crime. They have fewer protective guardians (Schreck *et al.* 2002), engage in more offending and report greater exposure to criminal friends (Schreck *et al.* 2006), and they impair their defences by consuming drugs and alcohol (Franklin 2011; Turanovic and Pratt 2014). Likewise, as noted earlier, verbally aggressive behaviour can create vulnerability because it is provocative, and those with high self-control are more likely to be sensitive to this possibility. If target self-control matters, as prior work suggests, then low self-control (and, consequently, a tendency to be verbally aggressive) will increase the odds that the actor in the dyad will attack. The effect of the potential target's self-control on their likelihood of suffering a violent attack will persist independently, even when the potential offender's self-control is statistically controlled. Previous dyadic analyses using high risk and purposive samples suggest that a partner's self-control is associated with physical victimization, net of the actor's self-control (Leone *et al.* 2016; Parrott *et al.* 2017; Quigley *et al.* 2018). For instance, using a sample of 612 heterosexual couples with a history of heavy drinking and intimate partner aggression, Parrott *et al.* (2017) found that a standard deviation (SD) decrease in a partner's behavioural regulation was associated with an 18.2 per cent increase in physical violence perpetration. Studies using smaller samples of undergraduate couples have also found physical aggression to be associated with partners' difficulties in emotional regulation (Watkins *et al.* 2014; Lee *et al.* 2020).

Taken together, Schreck's (1999) theory and extant research imply that an actor in a relational dyad, even one with low self-control, will be less likely to attack a dyadic partner who has high self-control. Indeed, because someone with high self-control has a better ability to remain civil, both parties will be less likely to deploy verbal aggression against one another. Conversely, an actor, irrespective of his or her own self-control, should be more likely to attack a partner who has low self-control. Efforts to understand how the self-control of potential victims affects the offender's aggressive behaviour toward them should then adjust for the offender's self-control to account for potential theoretical and empirical misspecification. The theoretical concerns therein are the qualities of those in the dyad.

THE PRESENT STUDY

At present, given that dyadic approaches have seen limited use in criminological research, it is unclear if the effect of the target's self-control on the offender's violent actions during conflict is entirely due to the offender's proclivity to make unsound decisions. In this research, given our theoretical interest in people who *routinely* interact, we focus on romantically involved dyads. This focus simplifies several analytic issues. Excepting long-distance relationships, which is not our focus and which are not typical, adult romantic partnerships generally involve significant time spent privately together or in direct-contact shared activity (Hill 1988; Voorpostel *et al.* 2010). The physical and relational circumstances conducive to interpersonal conflict—frequent exposure, shared resources, resource power differentials and limited guardianship—can therefore be taken as given (Pruitt and Rubin 1986). Romantic couples also have virtually unlimited possibilities for grievances, implying that the situationally induced motivations of con-

trolling another, settling scores and saving face will tend to occur regularly (Canary *et al.* 1995). Violence within the romantic dyad also takes place overwhelmingly in the home (Catalano 2006), obviating the need to include opportunity measures designed to capture situations conducive to street crime and delinquency—such as stealing vehicles, theft and so forth (e.g. Osgood and Anderson 2004). Nevertheless, consistent with Pratt and Turanovic's (2016) description of lifestyle theory, the presence of these physical conditions does not necessitate violence—their presence only makes conflict and violence between the partners *possible*. With the minimum situational requirements thus satisfied, the self-control of each partner in a dyad is what affects the likelihood of violence. Based on the theory described earlier, this study examines three research hypotheses:

- (1) The partner's self-control will be negatively associated with the actor's violence directed at the partner. That is, partners with higher self-control will have a lower probability of being attacked by the actor than partners with lower self-control. This effect will be independent of the actor's self-control and other relevant characteristics.
- (2) The actor's self-control will be negatively associated with the actor's violence directed at the partner. That is, actors with higher self-control will have a lower probability of attacking their partners than actors with lower self-control. This hypothesized effect on violence perpetration will be independent of the target's characteristics including the target's self-control.
- (3) The effect of self-control of both actor and partner on the actor's violence will be explained by the tendency of both actor and partner to engage in verbal provocations against one another. This hypothesis thus expects that verbal provocations will mediate the association between actor and partner self-control and the actor's violent behaviour in the dyad.

DATA AND METHODS

Sample

In the current study, we use data from Waves 1 and 2 of the iCOR project obtained from the online AmeriSpeak panel sample managed by NORC at the University of Chicago (see <https://amerispeak.norc.org>). Specifically, AmeriSpeak is a probability-based, nationally representative panel of over 25,000 households providing sample coverage for over 97 per cent of US households (Dennis 2018), including rural households. AmeriSpeak has the highest response rate of the available multiclient online probability-based panels in the United States, designed to meet the data quality standards of scientific and regulatory peer review. AmeriSpeak thus provides a comprehensive inventory of US households, underscoring the sample representativeness of the panel. NORC conducted an AmeriSpeak pilot feasibility study for the data used in the iCOR study ($n = 121$) to better understand the target population of adults aged 18–32, the proportion that report a current romantic relationship and whether partners would participate. Of respondents in a current romantic relationship ($n = 100$; 82.6 per cent), all (90 per cent affirmatively; 10 per cent unsure; no refusals) were open to participating in the iCOR study. Furthermore, 78 per cent of respondents were open to recruiting their partner for dyadic surveys of this content. These initial results from the pilot confirmed the feasibility of the iCOR study. Montgomery *et al.* (2016) detail the procedure for panel recruitment, including the two-stage probability sample design and the second stage of recruitment for initial non-respondents.

The first wave of data for the iCOR project was collected by AmeriSpeak from September 2016 through April 2017 (for details, see Berg *et al.* 2019a; Mumford *et al.* 2019; Taylor *et al.*

2019). Project staff first sent a postal letter and email to 4,714 AmeriSpeak members aged 18–32 describing the study and notifying potential participants of a \$15 monetary incentive. AmeriSpeak members that did not respond to the initial invitation were sent multiple follow-up invitations through email and phone contacts. Among the 4,714 members of the AmeriSpeak panel, 2,284 respondents—or ‘primes’—participated in the Wave 1 iCOR survey (48.5 per cent participation rate). The prime participation rate is similar to or exceeds that of other reputable national surveys in the United States (e.g. see [Pew Research Center 2012](#)). Note that the survey participation rate does not automatically affect the representativeness of the sample. Indeed, the composition of the iCOR sample aligns with the demographic profile of the US population in the targeted sampling frame, when benchmarked to the US Current Population Survey. Of the 2,284 primes interviewed during the first wave of data, 1,629 primes were then re-interviewed in a two-month follow-up survey from December 2016 to September 2017 (71.3 per cent retention rate). The Wave 2 retention rate approximates the rate of other multiwave national crime and violence data systems in the United States (see, [National Research Council 2008](#)). Among the Wave 2 primes, 1,318 primes (80.9 per cent) reported that they were in a romantic relationship, approximately 50 per cent of whom provided contact information to refer their partner to the iCOR project. Contact information was then used to survey 480 contacts (referred partners) from December 2016 to October 2017 (for more details on the dyadic data, see [Johnson et al. 2020](#)).

Our analytical sample only includes respondents with non-missing information on all variables included in our analyses. As such, we only include respondents in current relationships where both the prime and the contact responded to the survey in Wave 2 ($n = 466$ couples; 932 individuals). Cases with missing data were also excluded, leaving a final analytical sample of 443 couples and 886 individuals. The 23 couples removed from the analyses were predominantly missing responses to the items on relationship status and measures of self-control.

Outcome measure

The current study examines the perpetration of violence as the outcome measure. Violence perpetration and victimization was reported by both primes and their contacts in the Wave 2 iCOR survey. As our indicator of violence, we used a modified version of the conflict tactics scale ([Straus 2009 \[1995\]](#): 33). To record the perpetration of violence, respondents were asked how many times the following things happened in the past six months: (1) partner had a sprain, bruise or small cut or felt pain the next day because of a fight with me; (2) I pushed, shoved or slapped partner; (3) I punched or kicked or beat-up partner; (4) partner went to see a doctor (MD) or needed to see a doctor because of a fight with me. Response options included ‘this has never happened’, ‘not in the past six months, but it did happen before’, ‘once in the past six months’, ‘twice in the past six months’, ‘3–5 times in the past six months’ and ‘6 or more times in the past six months’. Because the sum of the violence scores produce skewed distributions, we follow the recommended procedure to dichotomize our outcome measure into violent (ever perpetrated violence) and non-violent (never perpetrated violence) categories (see [Straus 2009 \[1995\]](#): 37). Respondents, however, may be reluctant to report their own perpetration of violence. As such, we also use partner reports of victimization to calculate the respondents’ violence perpetration ([Quigley et al. 2018](#)). Our outcome measure, violence perpetration, is then coded as 1 if either member of the dyad report that the respondent perpetrated violence against the partner and 0 if neither member of the dyad reported that the respondent ever perpetrated violence. Descriptive statistics for all variables in our analytical models are reported in [Table 1](#). Approximately 27.5 per cent of the respondents perpetrated violence.

Table 1. Sample description

	<i>M/Percentage</i>	<i>SD</i>	<i>Range</i>
Dyad-level variables			
Child	54.9%	–	0–1
Relationship length	5.84	3.70	0.08–16.75
Dating	13.3%	–	0–1
Cohabiting	28.7%	–	0–1
Married	58.0%	–	0–1
Heterosexual couple	91.0%	–	0–1
Actor/partner variables			
Violence perpetration	27.5%	–	0–1
Self-control	3.56	0.81	1–5
Verbal provocation	.60	0.66	0–3.90
Male	48.2%	–	0–1
Age	28.4	4.7	18–59
Education	2.15	0.87	0–3
White	62.8%	–	0–1
Black	10.6%	–	0–1
Hispanic	16.7%	–	0–1
Other	9.9%	–	0–1

n = 443 dyads; 886 individuals.
M, mean; *SD*, standard deviation.

Predictor variables

To measure self-control, we use an eight-item scale drawn from the Brief Self-Control Scale (BSCS; see [Tangney et al. 2004](#)), which has been widely used to study risky behaviour, social attainment and decision-making (see [Duckworth and Seligman 2005](#); [Maloney et al. 2012](#); [Quigley et al. 2018](#)). Respondents provided answers on a five-point scale (1 = very much like you; 5 = not at all like you) to the following statements: (1) ‘You have a hard time breaking bad habits’, (2) ‘You wish you had more self-discipline’, (3) ‘You are good at resisting temptation’, (4) ‘People would say that you have very strong self-discipline’, (5) ‘Pleasure and fun sometimes keep you from getting work done’, (6) ‘You do things that feel good in the moment but regret later on’, (7) ‘Sometimes you can’t stop yourself from doing something, even if you know it is wrong’ and (8) ‘You often act without thinking through all the alternatives.’ Items 3 and 4 were reverse coded. The primes reported on their own level of self-control in Wave 1, while their contacts reported on their own level of self-control in Wave 2. In both reports, individual items had high internal consistency ($\alpha = 0.84$ and $\alpha = 0.85$) and were averaged to create composite scales. The average level of self-control for all respondents was 3.55 (*SD* = 0.81).

We measured verbal provocation using reports from both members of the dyad during Wave 2 ([Berg et al. 2019b](#); see also [Johnson et al. 2020](#)). We combined both the respondents’ self-report of their own verbal provocations and their partner’s report of their verbal victimization. Respondents were asked how often they engaged in the following against their partners and how often partners engaged in the following against the respondents: (1) shouted at, called names, insulted or otherwise confronted aggressively, (2) angrily accused of wrong-doing, (3) accused of disrespect or poor treatment, (4) attempted to get to do something partner did not want to do and (5) put down or otherwise made feel worthless. A study examined a construct

labelled ‘psychological aggression’ using a subset of the items (Johnson *et al.* 2020). Responses could range from never (0) to more than once a week (4). The recall periods for the primes and their contacts, however, were different lengths. The primes reported on verbal conflict in the past two months, whereas the contacts reported on verbal conflict in the past six months. The average score of the ten items demonstrated good reliability for both the primes’ verbal provocation ($\alpha = 0.90$) and the contacts’ verbal provocation ($\alpha = 0.89$). The average verbal provocation for all respondents was 0.60.

Dyad and individual-level control variables

Male represents the respondent’s gender assigned at birth (0 = female, 1 = male). Because the respondent’s gender and partner’s gender are highly correlated, we only include an indicator of the respondent’s gender. We also include, however, an indicator at the dyad level of whether the dyad is a same-sex relationship. At the dyad level, we also control for whether the actor or partner has a child (1 = yes), relationship length (in years and months) and the relationship status of the couple: 0 = dating but not living together (reference category), 1 = cohabiting (dating and living together) and 2 = married. Relationship length and status were reported by the primes. At the individual level, we include the same measures for both actors and partners. Age is measured in yearly increments. Race/ethnicity was treated as a series of dummy variables: non-Hispanic White (the reference group), non-Hispanic Black, Hispanic and Other. Education was treated as an ordinal variable ranging from ‘no high school diploma’ (0) to ‘bachelor’s degree and above’.

Analytical strategy

For the current study, we use an APIM (Kenny *et al.* 2006) in which individuals at Level 1 were nested under couples at Level 2. As such, we can examine how an actor’s perpetration of violence is affected by his or her own characteristics (actor effects), the characteristics of his or her partner (partner effects) and the characteristics of the relationship (dyad-level effects). Additionally, multilevel models for dyadic analyses include an error structure that accounts for the dependence of the errors of observations within couples (see Preciado *et al.* 2016). Because our outcome is dichotomous, we use multilevel mixed-effects logistic regression. The logistic multilevel model provides the log odds of perpetrating violence. The multilevel mixed-effects logistic regression employs a mean-variance adaptive Gauss–Hermite quadrature integration method with 30 integration points.¹ We then employ robust standard errors (SEs) and all continuous predictors were centred at the grand mean (Kenny *et al.* 2006).

For the analyses, we first explored an unconditional multilevel logistic regression model, which allowed us to estimate partner dependence (not shown in tabular form). Specifically, we calculated the intraclass correlation coefficient, which quantifies the degree of between-couple variation or partner dependence (Sommet and Morselli 2017). We then estimated a model with all dyad-level predictors, individual-level self-control (for both actor and partner) and all individual-level control variables. This allowed us to assess the effects of both the actor’s self-control and the partner’s self-control on the actor’s violence perpetration while holding constant other relevant characteristics of the actor, partner and dyad. Finally, we added individual-level verbal provocations (of both actor and partner) to a complete model. This allowed us to examine whether the effects of actor’s and partner’s self-control on violence are attenuated when controlling for the tendency of both actor and partner to engage in verbal provocations.

¹ Increases in integration points improve the accuracy of the model estimates; however, they can be computationally demanding. As such, starting with 10 integration points, we recalculated our estimates with an increasing number of integration points until the estimates stabilized. This allowed us to identify the most stable estimate without creating unnecessary computations. The estimates were stable from 30 to 195 integration points (the maximum number of integration points allowed in this procedure).

RESULTS

Violence perpetration

The unconditional model for violence perpetration indicates that there is significant partner dependence (not shown in tabular form). The random intercept variance (i.e. the Level-2 residual) was 13.10 and the intraclass correlation coefficient was 0.80. This indicates that approximately 80 per cent of the chance of perpetrating violence is explained by between-couple differences, and roughly 20 per cent is explained by within-couple differences. This suggests significant partner dependence and that a multilevel mixed-effects logistic regression model is an appropriate estimation strategy.

Table 2 presents the results from the full multilevel mixed-effects logistic regression models. Model 1 reports the estimates of the association between self-control and perpetration of violence. Key to the model is that it adjusts for *both* the partner's and actor's self-control, net of the dyad characteristics. This specification thus accounts for the role of each in affecting the likelihood of violence. Turning to Table 2, the results show that the partner's self-control is negatively

Table 2. Multilevel logistic actor–partner independence model predicting violence perpetration

	Model 1		Model 2	
	<i>b</i>	SE	<i>b</i>	SE
Dyad-level predictors				
Child	0.024	(0.672)	−0.743	(0.617)
Relationship length	0.072	(0.088)	0.018	(0.079)
Cohabiting	0.637	(0.926)	0.029	(0.820)
Married	−0.504	(1.010)	−0.431	(0.873)
Heterosexual couple	0.516	(0.910)	1.026	(0.934)
Actor predictors				
Self-control	−0.945***	(0.277)	−0.197	(0.240)
Verbal provocation	–		2.763***	(0.547)
Male	−1.514***	(0.345)	−1.317***	(0.362)
Age	0.034	(0.053)	0.033	(0.049)
Education	−0.214	(0.248)	−0.138	(0.242)
Black	0.430	(0.755)	0.444	(0.669)
Hispanic	0.661	(0.571)	0.807	(0.520)
Other	0.669	(0.728)	0.985	(0.749)
Partner predictors				
Self-control	−0.522*	(0.253)	0.197	(0.243)
Verbal provocation	–		1.179**	(0.436)
Age	−0.071	(0.050)	−0.069	(0.048)
Education	−0.555*	(0.256)	−0.629*	(0.245)
Black	1.029	(0.810)	0.953	(0.712)
Hispanic	0.124	(0.583)	0.240	(0.570)
Other	0.853	(0.690)	0.842	(0.652)
Constant	−1.279	(1.439)	−1.255	(1.453)

n = 443 dyads; 886 individuals. Unstandardized coefficients (*b*) with robust standard errors (SE) are displayed.

p* < 0.05; *p* < 0.01; ****p* < 0.001.

associated with the actor's violence perpetration ($b = -0.522$, $SE = 0.253$, $p < 0.05$), net of dyad-level and individual-level control variables. This finding indicates support for Hypothesis 1—actors are less likely to perpetrate violence when their partners have higher self-control, *independent* of the actor's own self-control.

Next, the results in [Table 2](#) also show that the actor's own self-control is negatively associated with the actor's violence perpetration towards the partner ($b = -0.945$, $SE = 0.277$, $p < 0.001$), supporting Hypothesis 2. This finding maintains regardless of the partner's self-control. This is worth emphasizing given that prior research typically only adjusts for the tendencies of the survey respondent in studies of aggression.

Model 1 of [Table 2](#) also suggests that none of the dyad-level variables are significantly associated with violence perpetration. At the individual level, the only significant actor effect (other than self-control) is actor gender: if the actor is male, the actor is significantly less likely to perpetrate violence ($b = -1.514$, $SE = 0.345$, $p < 0.001$). This effect of gender is consistent with a body of survey research in the United States and abroad, indicating that males are equally or less physically aggressive than females in heterosexual intimate partner relationships (e.g. [Moffitt and Caspi 1999](#)), although females suffer greater injury. The only significant partner effect (other than self-control) is partner education. Actors are significantly less likely to perpetrate violence against partners with higher levels of education ($b = -0.555$, $SE = 0.256$, $p < 0.05$).

[Figure 1](#) displays the marginal effects of the self-control of both the actor and the partner on the predicted probability that the actor perpetrates violence while holding all covariates at their mean. The predicted probabilities were calculated from the logistic regression analysis in Model 1 of [Table 2](#). The data displayed in [Figure 1](#) bolster our findings that both actor and partner self-control are negatively associated with the actor's perpetration of violence. The predicted probability of violence perpetration by the actor decreases from 0.32 to 0.21 when moving from 1 SD below average levels of actor self-control to 1 SD above average levels of actor self-control (see Panel A of [Figure 1](#)). Similarly, though not as pronounced, the predicted probability of violence by the actor decreases from 0.30 to 0.24 when moving from 1 SD below average levels of partner self-control to 1 SD above average levels of partner self-control (see Panel B of [Figure 1](#)).

Next, in Model 2 of [Table 2](#), we introduce the measures of the actor's and partner's tendency to use verbal provocation against one another. The results suggest that both the actor's verbal provocation ($b = 2.763$, $SE = 0.547$, $p < 0.001$) and the partner's verbal provocation ($b = 1.179$, $SE = 0.436$, $p < 0.001$) are positively associated with the actor's perpetration of violence, net of controls. In addition, the inclusion of verbal provocations reduces the effect of the actor's self-control ($b = -0.197$, $SE = 0.240$, $p = 0.412$) and the partner's self-control ($b = 0.197$, $SE = 0.243$, $p = 0.419$) to close to zero and non-significant. The results in Model 2 of [Table 2](#) offer support for Hypothesis 3 and indicate that verbal provocations attenuate the association between self-control (both actor and partner self-control) and the actor's perpetration of violence.

Supplemental analyses: verbal provocation

While our previous models reveal that verbal provocations attenuate the associations between self-control and violence, it is unclear whether only the actor's *own* self-control is associated with the actor's verbal provocations or if the partner's self-control is also associated with the actor's verbal provocations. Therefore, we conducted supplemental analyses in which we treat verbal provocation as an outcome. We used the natural log of verbal provocation to correct for skewness. [Table 3](#) presents estimates from mixed-effects linear regression models of the association between self-control (both the actor's and the partner's) and verbal provocations, net of dyad-level and individual-level control variables. We find evidence that the actor's self-control has a significant negative association with the actor's verbal provocations, which accords with prior psychiatric research on psychological aggression ([Johnson et al. 2020](#)). On average, an SD increase in the actor's

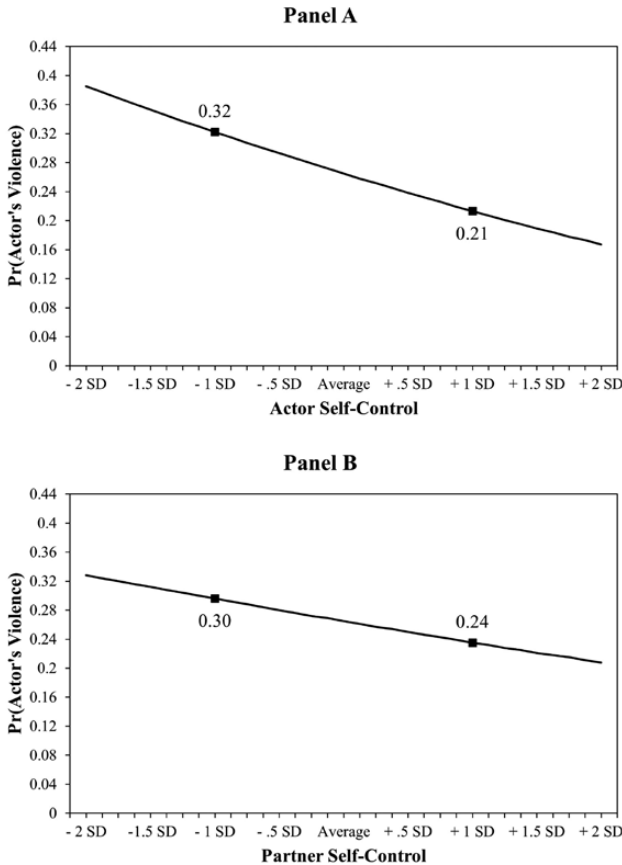


Fig. 1. Predicted probabilities of violence perpetration by (A) actor's self-control and (B) partner's self-control. The predicted probabilities were calculated from the logistic regression analysis in Model 1 of Table 2. Predicted probabilities are estimated at 0.108 intervals of self-control from 2 standard deviations (SDs) below average levels of self-control to 2 SDs above average levels of self-control. Covariates were held at their mean.

self-control is associated with a 0.206 SD decrease on the actor's verbal provocation scale ($b = -0.090$, $SE = 0.014$, $p < 0.001$), net of control variables. We also find that the partner's self-control has a significant negative association with the actor's verbal provocations. On average, an SD increase in the partner's self-control is associated with a 0.202 SD decrease in the actor's verbal provocation ($b = -0.088$, $SE = 0.014$, $p < 0.001$). Additionally, male actors tend to engage in verbal provocations less frequently than female actors ($b = -0.076$, $SE = 0.010$, $p < 0.001$). Together, these findings indicate that self-control is associated with a reduced tendency of the actor to (1) engage in verbal provocations and (2) to be on the receiving end of verbal provocations.

DISCUSSION AND CONCLUSION

Incident-level research on violence shows that *both* attackers and targets contribute *independently* towards an incident. Yet incidents do not necessarily speak to the people involved in them. Likewise, the question remains as to what degree a potential target can manage a potential offender. Individual-level theories of victimization presuppose that targets can often foil

Table 3. Multilevel actor–partner interdependence model predicting verbal provocations

	<i>b</i>	<i>SE</i>	β
Dyad-level predictors			
Child	0.105**	(0.036)	0.148
Relationship length	0.005	(0.005)	0.048
Cohabiting	0.067	(0.051)	0.086
Married	−0.020	(0.054)	−0.027
Heterosexual couple	0.001	(0.060)	0.001
Actor predictors			
Self-control	−0.090***	(0.014)	−0.206
Male	−0.076***	(0.010)	−0.107
Age	0.001	(0.003)	0.019
Education	−0.007	(0.013)	−0.017
Black	−0.011	(0.037)	−0.009
Hispanic	0.003	(0.028)	0.003
Other	−0.034	(0.031)	0.029
Partner predictors			
Self-control	−0.088***	(0.014)	−0.202
Age	−0.001	(0.003)	−0.017
Education	0.012	(0.013)	0.029
Black	0.040	(0.037)	0.035
Hispanic	−0.001	(0.027)	−0.002
Other	0.026	(0.030)	0.022
Constant	−0.047	(0.091)	

n = 443 dyads; 886 individuals. Unstandardized (*b*) and standardized (β) coefficients with robust standard errors (*SE*) are displayed.

p* < 0.05; *p* < 0.01; ****p* < 0.001.

offenders, yet research testing this leaves out the offender. Because of this, offenders with low self-control might attack no matter what the target does. This is the point of departure for most theories of offending, which often leave no causal role for the target (Schreck and Berg 2021). Scientific understanding of offending and victimization have evolved on separate tracks (see Meier and Miethe 1993; Lauritsen and Laub 2007), only occasionally acknowledging one another (Gottfredson and Hirschi 1990; Wikstrom *et al.* 2012).

We use Gottfredson and Hirschi's (1990) self-control theory as our test case for these ideas, because it is one of the few designed to allow targets to influence offender decision-making (see also Schreck 1999). Self-control theory suggested three hypotheses. First, a partner who has low self-control is more likely to draw an attack from the actor, regardless of the actor's self-control. That is to say, the target's self-control is an independent contributor to violence. In Schreck's (1999) theory, this is because those with low self-control are more likely to aggravate those around them and then respond poorly to complaints about their behaviour, possibly leading to violence. The literature testing Schreck's theory, however, almost exclusively relies on self-reports from the crime targets only, without any information from their actual offenders. Consequently, there was always the possibility that the effect of the target's self-control would vanish once the offender's self-control was incorporated into the analysis. The results instead supported Hypothesis 1, verifying the importance of the research linking low self-control with

victimization. Having a partner with high self-control makes even an actor with low self-control less likely to attack; being in a relationship with someone who has low self-control makes *everyone* more likely to attack. Thus, although offenders have freedom to choose to commit crime, per the claims of self-control theory, ample exposure to easy inducements to violence appear to make crime more likely even for those with more self-control. This implies that the target is a matter of scientific importance in self-control theory. Moreover, the results suggest that theories of offending should follow Gottfredson and Hirschi and investigate how to assign appropriate causal importance to the target (for a description of the challenges inherent in such a task, see Schreck and Berg 2021).

Our second hypothesis was that those with low self-control will be more apt to attack their partner, and the results are supportive. This finding might appear unexceptional—research has indicated for decades that a person's self-control is correlated with violent behaviour (Gottfredson and Hirschi 2019). The results, however, suggest that those who have low self-control to some degree attack regardless of the target's level of self-control, suggesting that they sometimes imagine provocation or overreact to trivial grievances. That is to say, targets have an imperfect ability to foil the potential offender. Indeed, the actor's (or potential offender's) self-control has a *stronger* effect on violent perpetration than that produced by the target's self-control. The results thus support the view that theories of crime should dedicate significant attention to the conditions that produce the individual offender. This finding runs counter to what situational crime theorists have sometimes advocated, which is that 'opportunity makes the thief' and that it was unnecessary to consider the offender's background characteristics (Clarke 1995). There is thus merit in Birkbeck and LaFree's (1993: 130) contention that a better course is 'the identification of patterns of interaction between individuals and situations in the genesis of decisions to commit crime.' We do not control for the physical environment since there appears to be little variation in where partner conflicts transpire, which is overwhelmingly in the home according to national survey estimates (Catalano 2006). Future research may consider the additive effects of home setting, amount of direct contact, privacy, proximity to neighbours and so forth.

Hypotheses 1 and 2 do not indicate the mechanism behind self-control and violence. Drawing from the insights of Tedeschi and Felson (1994) and other research on dispute-related violence, we theorized that a poor decision process expresses itself in action. Our third hypothesis therefore holds that those with low self-control are more likely to forego civil conduct, which people use when they anticipate that their dispute with another might escalate—and rely instead on verbal aggression. People with low self-control tend to perform interpersonally in ways that elicit grievances, thus provoking disputes (Gottfredson and Hirschi 1990; Felson et al. 2018). The results show that both offenders and targets with low self-control are more likely to be verbally aggressive, and this accounts for the effect of self-control on violent attack. These findings are consistent with research derived from interactionist perspectives examining how verbal conflict can escalate into attack and homicide (Berg and Felson 2019). It is noteworthy that the magnitude of the effects of disputatiousness for both offender and target are virtually the same, suggesting that targets who engage in provocations have an important explanatory role that rivals the attacker's provocative behaviour.

The present study suffers from several limitations that temper the strength of the findings but also present opportunities for future research on target effects on offender decision-making. First, our theoretical focus is purely on self-control theory, not other perspectives designed to explain intimate partner violence (e.g. Capaldi et al. 2012; Gadd et al. 2019). This focus is necessitated by the sample size, which cannot support the inclusion of additional explanatory variables. Future efforts at data collection could mitigate this with enlarged samples. Nevertheless, dyadic analyses such as reported here are rare and our results offer an initial assessment of the target's contribution to violence within the dyad. Second, by relying on individual-level data to

assess the association between target self-control, verbal provocation and violence, we cannot be certain that verbal provocation and violence occurred within the same incident. Attempts to combine individual-level information from both participants with situational data on their verbal and violent conflicts would offer more fine-grained insight into the association between target self-control and escalation (see Berg and Felson 2019). Third, we acknowledge that our measurement of self-control (BSCS) may not fully capture the various constituent constructs under the umbrella of self-control that have been investigated in recent work. Some suggest that the BSCS assesses impulsivity (Jones 2017). We prefer, however, to use the term ‘self-control’ as we are speaking directly to the assumptions of the theoretical perspective developed by Gottfredson and Hirschi (1990). Data limitations also preclude us from establishing whether our findings carry over to other relationship types, such as friends, acquaintances or strangers. Disputes between couples may be governed by unique relational concerns that affect how self-control is associated with verbal provocation and violence. Prior research suggests that violence in intimate relations is relatively less common than other relationship types given the frequency of contact and conflict between intimates (Felson 2002). Nevertheless, our theoretical argument suggests that target self-control should decrease verbal provocations and violent actions regardless of the relationship type. Future research could thus profit from attempts to collect relevant data and explore whether our findings generalize to offender–target dyads beyond couples.

The results also suggest innovative directions for crime prevention policy. Many precautions against crime entail sacrifice and inconvenience, which deter their use by potential targets. If low self-control indeed makes one more likely to become a victim of a violent attack, it follows that such people may be less likely to take precautions or more likely to prefer risky defensive behaviours, such as acquiring a weapon (Schreck et al. 2018). Furthermore, the theory suggests that the failure to take precautions is possibly habitual. Indeed, educating potential targets about safety-mindedness does not appear to work (Finkelhor and Dziuba-Leatherman 1995), a finding predicted by self-control theory (Schreck et al. 2006). Self-control theory thus gives policymakers a theoretical basis for anticipating noncompliance to safety-minded behaviour and suggests appropriate countermeasures to encourage those most at risk for victimization to protect themselves effectively.

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