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Resisting Rape: The Effects of Victim Self-Protection on Rape Completion and Injury

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Abstract

The impact of victim resistance on rape completion and injury was examined utilizing a large probability sample of sexual assault incidents, derived from the National Crime Victimization Survey (1992-2002), and taking into account whether harm to the victim followed or preceded self-protection (SP) actions. Additional injuries besides rape, particularly serious injuries, following victim resistance are rare. Results indicate that most SP actions, both forceful and nonforceful, reduce the risk of rape completion, and do not significantly affect the risk of additional injury.

Keywords

rape, violence, self-defense

Rape and sexual assault remain widespread in America. It has been estimated that approximately 20% of all women will be raped at some point through their life course (Koss, 1993). Rape can cause long-term physical and emotional trauma to victims, including persisting fear, anxiety, suspicion, confusion, anger, and even suicidal behaviors (Burgess & Holmstrom, 1974; Kilpatrick, Resick, & Veronen, 1981). Completed rapes cause more psychological problems than attempted rapes, and those involving physical injury are even more likely to cause posttraumatic stress disorder (Kilpatrick et al., 1981).

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Prior Research

Despite the seriousness of the problem, researchers and other authorities have failed to provide consistent and specific guidance to potential victims concerning the best tactics to use in the face of a rape attempt (Ullman, 1997). Researchers have generally agreed that victim resistance is effective for avoiding rape completion (Clay-Warner, 2002; Guerette & Santana, 2010; Kleck & Sayles, 1990; Marchbanks, Lui, & Mercy, 1990; Ullman, 1998; Ullman, 2007; Ullman & Knight, 1992; Zoucha-Jensen & Coyne, 1993), but there is no consensus on which specific victim tactics are most effective. Furthermore, controversy remains concerning the impact of resistance, especially forceful resistance, on whether the victim suffers any additional injuries beyond rape itself (Ullman, 1997). Some scholars have argued that victim resistance, especially forceful resistance, is useless and even dangerous because it provokes rapists into inflicting additional injuries (e.g., Brecklin & Ullman, 2001; Griffin & Griffin, 1981; Marchbanks et al., 1990). Others have concluded that resistance is generally either beneficial or does not increase the risk of additional injury (Guerette & Santana, 2010; Kleck & Sayles, 1990; Ullman & Knight, 1992; Zoucha-Jensen & Coyne, 1993).

Variation in findings on this point may be due in part to differences in the samples analyzed. Some studies have been based on small nonprobability samples of crimes, typically local convenience samples of incidents known to authorities, such as those reported to a single local law enforcement agency (Ullman, 1998; Ullman & Knight, 1992; Zoucha-Jensen & Coyne, 1993), incidents involving college students at a single campus (Levine-MacCombie & Koss, 1986), victims who sought help from a particular rape crisis center (Atkeson, Calhoun, & Morris, 1989; Ruback & Ivie, 1988), offenders incarcerated in a single institution or handled by a single treatment facility (Ullman & Knight, 1992, 1993), or self-selected volunteer subjects (Bart, 1981; Bart & O'Brien, 1985). Convenience samples of crimes that come to the attention of the authorities or treatment personnel are afflicted by biases that bear directly on the apparent effectiveness of victim defensive actions. Victims tend not to report to the police less serious crimes and those in which they suffered no injuries or property loss (Rennison, 2002; U.S. Bureau of Justice Statistics, 1985), so samples of crimes known to the authorities disproportionately exclude cases in which victim actions were effective in preventing injury or property loss. Incidents reported to victim crisis centers or treatment facilities would suffer from similar censoring of crimes with better outcomes for victims, since such victims would be less likely to seek treatment or counseling.

Apparent conflicts in findings of studies may also be attributable to the failure of many researchers to establish the sequence of protective actions and injury. Researchers who found positive associations between injury and self-protection (SP) actions, and concluded that resistance provoked offenders into attacking victims, failed to establish whether SP actions preceded or followed the offender's inflicting of injury (e.g., Atkeson et al., 1989; Block & Skogan, 1986; Brecklin & Ullman, 2001; Griffin & Griffin, 1981; Marchbanks et al., 1990; Ruback & Ivie, 1988). In these studies, crimes where a victim was injured before doing something to resist were effectively treated as cases in which resistance provoked injury. In contrast, studies that established the injury-SP sequence have generally found that all or most types of resistance either reduce the risk of

subsequent injury or have no net effect one way or the other (Guerette & Santana, 2010; Quinsey & Upfold, 1985; Tark & Kleck, 2004; Ullman & Knight, 1992).

Another problem in this research is the use of limited two- or three-category typologies of resistance actions. Some researchers simply divide victims into those who resisted or did not resist, or distinguish only physical ("forceful," "direct," "combative") resistance from nonphysical resistance (e.g., Block & Skogan, 1986; Marchbanks et al., 1990; Ullman, 1998). These scholars have generally concluded that physical resistance increased the risk of injury while it reduced the likelihood of rape completion. Although the pre-1986 National Crime Victimization Survey (NCVS) distinguished 8 types of SP actions, and the post-1986 NCVS distinguished 16 types, even researchers using this rich source of information have needlessly grouped different types of victim actions into a few broad categories. In contrast, Kleck and Sayles (1990) separately assessed all eight categories of SP in the pre-1986 NCVS and found that some forceful responses appeared to reduce the risk of injury while others did not, and that some nonforceful responses appeared to be effective while others, such as attempting to get help, seemed to increase the risk of injury. Thus, important differences in impact can be lost by combining protection strategies.

Furthermore, some researchers of rape and sexual assault have used few or no controls for potential confounders. The absence of statistical controls is problematic because the choice of resistance method and injury outcome are both strongly correlated with other variables, such as types of offender attack or threat (Ullman & Knight, 1992), victim and offender alcohol consumption (Brecklin & Ullman, 2001), and victim–offender relationships (Atkeson et al., 1989; Levine-MacCombie & Koss, 1986).

We test the following hypotheses with respect to each type of victim SP action: (a) the SP action reduces the likelihood of a rape attempt being completed and (b) the SP action reduces the likelihood of a rape victim suffering nonsexual injury. Our general expectation was that the more forceful a SP action was, the more likely it was to deter the aggressor from continuing his efforts to rape the victim, and the more likely it was to discourage rather than provoke offender attempts to inflict physical injury on the victim. Thus, merely verbal resistance would have mild effects, unarmed physical resistance would have stronger effects, and armed physical resistance would have the strongest effects in preventing rape completion.

Armed resistance by rape victims appears to be quite rare, especially armed resistance with a gun. This may reflect in part NCVS victim-respondents' reluctance to admit possibly unlawful gun possession to federal government interviewers (Kleck & Gertz, 1995), but is also at least partly due to the rarity with which women personally own guns or carry them away from the home. U.S. adult women are less than one third as likely to personally own a handgun as men (Kleck, 1997), and less than half as likely as men to carry a gun on their person away from home (Kleck & Gertz, 1998). Thus, research samples typically include only a handful of women who used guns or other weapons to resist crime, and conclusions about the effects of such use are correspondingly tentative. This limited evidence indicates that armed resistance is effective in preventing rape completion (Kleck & Sayles, 1990) and has no significant net effect on whether victims suffer any additional injury (Kleck & Sayles, 1990; Tark & Kleck, 2004).

Method

Sample

The data for this study were generated by interviews conducted by the U.S. Census Bureau in connection with the NCVS, covering crime incidents that occurred in the United States from 1992 to 2002 (U.S. Bureau of Justice Statistics, 2000). Information on the sequence of victim harm and resistance actions was not gathered before 1992. Rapes involving female victims were selected for analysis according to the NCVS Type of Crime (TOC) typology. The sample was composed of 733 unweighted cases of rape or attempted rape with female victims and 1,278 sexual assaults that were not rapes or attempted rapes. Incidents were weighted using a modified version of the NCVS Incident Weight, which reflects their differing probabilities of selection into the sample.

Establishing the Occurrence of the Offense

The occurrence of a rape is established in the NCVS through a long and intricate series of questions. First, "individual screen" questions are asked to establish the possible occurrence of such a crime. After a series of broad questions inquiring about attacks or threats in general, the key rape-related screen question was

> Incidents involving forced or unwanted sexual acts are often difficult to talk about. [Other than any incidents already mentioned] have you been forced or coerced to engage in unwanted sexual activity by—(a) someone you didn't know before, (b) a casual acquaintance, or (c) someone you know well?

Later, a long series of open-ended questions are asked in the Crime Incident Report section of the interview to establish what sort of assault occurred, including questions about exactly how the offender threatened or attacked the victim, or attempted to do so (interviewers could code "unwanted sexual conduct with [or without] force," "verbal threat of rape," "raped," "tried to rape," or "sexual assault other than rape or attempted rape"), and what injuries were inflicted (including "raped" and "attempted rape"; see U.S. Bureau of Justice Statistics, 2000, pp. 138-146 for full details).

Outcome (Dependent) Variables

Table 1 lists the variables included in the analyses. Most variables are binary, indicating the presence or absence of an attribute. The types of injuries recorded in NCVS are (a) raped; (b) attempted rape; (c) sexual assault other than rape or attempted rape; (d) knife or stab wounds; (e) gunshot, bullet wounds; (f) broken bones or teeth knocked out; (g) internal injuries; (h) knocked unconscious; (i) bruises, black eyes, cuts, scratches, swelling, chipped teeth; and (j) other injuries. Rape completion was measured using the contrast between raped versus attempted rape (categories a and b), while additional injury was coded based on injury categories (c) through (j). The exact cut-off between more serious and less serious injuries is necessarily somewhat subjective, but we used

Table 1. Variables in the Analyses.

Variable	Description	Proportion
Dependent variables		
RAPED	V was raped (completed rape)	0.62
POSTRAPE	V was raped after taking SP actions	0.34
NOSEXINJ	V was injured, excluding rape	0.37
PONOSEXI	V was injured, excluding rape, after taking SP actions	0.26
NOSEXSR	V was seriously injured, excluding rape	0.04
PONSEXSR	V was seriously injured, excluding rape, after SP actions	0.05
Independent variables		
Victim's SP		
GUNATACK	V attacked O with gun; fired gun	0.00
GUNTHRET	V threatened O with gun	0.00
NOGUNATK	V attacked O with other weapons (knife, etc.)	0.00
NOGUNTHR	V threatened O with other weapon (knife, etc.)	0.00
NOWEPATK	V attacked O without weapon (hit, kicked, etc.)	0.14
NOWEPTHR	V threatened without weapon	0.01
STRUGGLE	V struggled, ducked, blocked blows, held onto property	0.38
CHASHELD	V chased, tried to catch or hold O	0.00
SCAREOFF	V yelled at O, turned on lights, threatened to call police	0.18
COPRSTAL	V cooperated, or pretended to (stalled, did what they asked)	0.08
ARGUE	V argued, reasoned, pleaded, bargained, and so on	0.22
RANHIDE	V ran or drove away, or tried; hid, locked door	0.12
CALLPOL	V called police or guard	0.04
GETHELP	V tried to attract attention or help, warn others (cried out for help, called children inside)	0.04
SCREAM	V screamed from pain or fear	0.12
OTHERS	V took other SP actions	0.10
Power difference between V and O		
ADVAGEOF	O age 15-29 and V either under 15 or 30 or older	0.09
ADVNUM	Number of O − Number of V (raw number)	−0.08
MALEOFDC	O was male	0.98
Offender weapons and attack		
OHADGUN	O had gun	0.05
OHADKNIF	O had knife	0.06
OHADSHAP	O had sharp object	0.00
OFDATCK	O attacked V	0.98
Victim characteristics		
HADCHILD	Child in the victim's household	0.41
HOUSOWN	V owned the house	0.34
EMPLOYED	V had a job last week or for 2 weeks in last 6 months	0.60
OLD65	V was 65 or older	0.01
MARRIED	V was married	0.09

(continued)

Table 1. (continued)

Variable	Description	Proportion
HIGHDIPL	V had high school diploma or higher	0.38
BLACK	V was Black	0.19
ASIAN	V was Asian	0.02
HISPANIC	V was Hispanic origin	0.08
NUMVICEX	Number of victimization in last 6 months (raw number)	2.27
Offender characteristics		
OFDGANG	O was gang member	0.06
OFDSUBST	O was under influence of alcohol or drugs	0.48
OFDFAMIL	O was V's family member	0.03
OSEXINTI	O was V's sexual intimate	0.28
OFDACQNT	O was V's acquaintance (not family or work acquaintance)	0.26
OWORKACQ	O was V's work acquaintance	0.03
OFDBLACK	O was Black	0.26
OFDWHITE	O was White	0.63
Incident circumstances		
RURAL	Incident occurred in rural area	0.20
URBAN	Incident occurred in urban area	0.41
ATHOME	Incident occurred at home	0.44
NEARHOME	Incident occurred near home	0.31
SECUPUB	Incident occurred in public place which might have security	0.06
OTHRPRES	Incident occurred with third parties present	0.20
Other variables eliminated in logistic analyses		
ANYSD16	V took any of 16 types of SP action	0.76
TOTALSD	Total number of victim actions	0.33
HOMINCOM	Income of the household (categorical variable)	6.61
YOUG1529	Victim was 15 to 29 years old	0.62
NUMOFD	Number of offenders (raw number)	0.13
YONGOFDC	Offender was 15 to 29 years old	0.57
NIGHT	Incident occurred at night	0.72
AFTERNON	Incident occurred in the afternoon	0.09
SOUTH	Incident occurred in South	0.25
WEST	Incident occurred in West	0.18

Note. For binary variables, 1 = *attribute is present*, 0 = *attribute is not present.*

the fairly conventional one adopted in past research using NCVS data: the last two categories (i and j) were treated as less serious, the rest (c-h) as more serious.

As used in the various analyses, the dependent variables measured whether the victim (a) suffered completion of rape, regardless of whether it occurred before or after SP actions were taken by the victim (RAPED); (b) suffered completion of rape *after* taking some SP action (POSTRAPE); (c) suffered any nonsexual injury (i.e., injury beyond the rape itself), regardless of when it occurred (NOSEXINJ); (d) suffered any nonsexual

injury *after* taking some SP action (PONOSEXI); (e) suffered any serious nonsexual injury, regardless of when it occurred (NOSEXSR); or (f) suffered any serious nonsexual injury *after* taking some SP action (PONSEXSR). Since our dependent variables were all binary variables, we used logistic regression to estimate models.

Determination of the Sequence of Injury and SP Actions

Injury that occurs before the victim took any SP actions obviously cannot be the result of those actions. Some of our outcome measures—RAPED, NOSEXINJ, NOSEXSR—measure whether injury occurred, regardless of the temporal sequence of SP and injury, intentionally mimicking the measures used in past research for purposes of replication. We then separately analyzed the occurrence of rape suffered after taking some SP action (POSTRAPE), the experience of some additional injury (i.e., injury besides rape itself) suffered after taking SP actions (PONOSEXI), and serious additional injury suffered after taking SP actions (PONSEXSR). These variables effectively code an injury as potentially the result of victim SP actions only if the injury was inflicted after SP actions.

The NCVS does not address the possibility of complex sequences in which multiple different types of defensive actions are taken, and injury occurs after one victim action but before another type of action. Rather, all victims who were injured and used protective actions are simply coded as to whether protective actions (in general) were taken before, during, or after suffering injury. We treated victims who were injured after victim actions as having suffered post-SP injury. In some incidents, victims were unable to say whether their protective actions came before or after injury. We treated these incidents as missing on the post-SP injury variables. Interviewers could code incidents for as many of these sequences as appropriate, and a victim therefore could be coded as having suffered injury before, during, and after taking defensive actions. For the purpose of coding post-SP injury, we treated victims who were injured both before and after victim actions, or both during and after SP actions, as having suffered post-SP injury, thereby intentionally favoring the hypothesis that resistance increases the victim's risk of injury.

SP Variables Measured

The independent variables of primary interest were 16 binary variables denoting whether the victim took a given type of SP action (1 = *action was taken*, 0 = *action was not taken*). The specific actions recorded are listed in Table 1. Interviewers recorded as many or few of these strategies as victims reported, so it is possible for any one victim to be coded 1 on multiple SP variables. Victims who did nothing to resist would simply be coded 0 on all 16 SP variables. Because there was no variable included in the models that explicitly denoted that victims did nothing to protect themselves, "no self-protection" was the omitted SP category, which therefore serves as the point of comparison for all specific protective actions. Thus, the coefficient of each SP variable reflects how much more or less likely a given outcome was for victims who took that action, compared with victims who did nothing to resist, other things being equal.

Control Variables

Other independent variables included in the models measure characteristics of the victims, offenders, and circumstances that might influence the outcomes of the incidences, and that might also be correlated with the willingness or ability of victims to use each defensive action. Of particular interest, three variables were included to reflect power advantages that offenders had over victims. ADVAGEOF is coded higher when one or more offenders were in their physical prime ages (15-29 years) and the victim was not of this age range, that is, there was likely to be a power advantage to the offender(s) based on age and associated physical fitness. ADVNUM equaled the number of offenders minus the number of victims, reflecting any numerical advantage of offenders. MALEOFDC is coded higher when one or more offenders are male, who are stronger than female victims. Other variables measure whether offenders had weapons during the incident (OHADGUN, OHADKNIF, OHADSHAP) and whether offenders actually attacked the victim (OFDATCK). A more complete rationale for the inclusion of each control variable may be found in Tark and Kleck (2004).

To summarize, our study makes a contribution to the literature on SP in sexual assault in the following ways: (a) We examine a large national probability sample of sexual assaults rather than a small nonprobability sample, (b) we take account of the sequence of victim protective actions and injury in appropriate ways, (c) we control for many confounding correlates of defensive actions, (d) we separately assess the impact on the outcomes of crimes of each of the 16 specific victim actions coded in the post-1992 NCVS, (6) we assess the impact of SP actions on both rape completion and on whether the victim suffers additional injuries. To our knowledge, this study is the only one to combine these strengths. The few prior studies that took account of the sequence of SP actions and injury (e.g., Quinsey & Upfold, 1985; Ullman, 1998) were nearly all based on nonprobability local samples of offenses reported to the police, while almost all of those that analyzed national probability samples did not take account of sequence (e.g., Block & Skogan, 1986; Brecklin & Ullman, 2001; Lizotte, 1986; Marchbanks et al., 1990). The only prior study based on a large national sample that took account of sequence was that of Tark and Kleck (2004), but this study assessed only effects on injury, and did not address rape completion.

Results

Frequency, Completion, and Injury Rates of Protective Actions

Tables 2 and 3 show how often NCVS crime victims reported using the various types of victim protective actions, the share of victims using each method who experienced a completed rape (vs. an attempted rape), and the share who suffered any additional injury other than rape itself, and rates of injury that occurred after the victim took SP actions. The figures show that while many victims of rape or attempted rape suffer nonrape injuries, few of these injuries were inflicted after the victim took protective actions. Resisting victims are less likely to be injured after taking some kind of protective action than nonresisting victims. In 556 rape/attempted rape incidents where

Table 2. Frequency, Rape Completion Rates, and Injury Rates of Self-Protection (SP) Strategies.

	Rapes						
SP strategy	Frequency	% Rapes completed	% Completed after SP	% Injured[a]	% Injured after SP[a]	% Seriously injured[a]	% Seriously injured after SP[a]
V attacked O with gun; fired gun	0	—	—	—	—	—	—
V threatened O with gun	1	100.0	0.0	0.0	0.0	0.0	0.0
V attacked O with other weapons (knife, etc.)	4	25.0	0.0	100.0	0.0	0.0	0.0
V threatened O with other weapon (knife, etc.)	4	25.0	0.0	25.0	0.0	25.0	0.0
V attacked O without weapon (hit, kicked, etc.)	100	49.0	23.8	49.5	33.3	6.0	6.8
V threatened without weapon	7	57.1	33.3	42.9	25.0	25.0	25.0
V struggled, ducked, blocked blows	279	49.8	17.5	45.5	28.1	6.1	6.8
V chased, tried to catch or hold O	2	50.0	0.0	0.0	0.0	0.0	0.0
V yelled, turned on lights, threatened to call police	135	45.2	16.7	50.4	43.3	8.1	10.6
V cooperated, or pretended to (stalled, did what they asked)	56	82.1	37.5	39.3	53.8	8.8	27.3
V argued, reasoned, pleaded, bargained, and so on	162	69.8	38.5	44.4	44.6	5.6	16.7
V ran or drove away, or tried; hid, locked door	89	34.8	0.0	38.9	22.0	2.2	0.0
V called police or guard	29	41.4	0.0	62.1	35.7	6.9	0.0
V tried to attract attention or help, warn others (cried out for help, called children inside)	31	45.2	11.1	67.7	68.8	6.5	20.0
V screamed from pain or fear	90	66.7	22.2	64.0	62.5	10.0	19.0
V took other SP actions	71	63.4	10.0	29.6	9.1	4.2	0.0
Any SP action taken	556	54.5	19.1	40.8	26.3	4.3	5.2
No SP actions taken	177	88.1	—	24.9	—	2.8	—
Total incidents[b]	733	62.9	11.0	36.9	8.0	4.0	1.4

[a]Injuries other than rape itself.
[b]Total incidents are smaller than the sum of separate counts of SP actions because some victims used multiple SP actions.

Table 3. Frequency and Injury Rates of Self-Protection (SP) Strategies.

	Sexual assaults[a]				
Type of SP	Frequency	% Injured	% Injured after SP	% Seriously injured	% Seriously injured after SP
V attacked O with gun; fired gun	0	—	—	—	—
V threatened O with gun	2	0.0	0.0	0.0	0.0
V attacked O with other weapons (knife, etc.)	4	100.0	0.0	0.0	0.0
V threatened O with other weapon (knife, etc.)	11	9.1	0.0	9.1	0.0
V attacked O without weapon (hit, kicked, etc.)	144	36.8	19.8	4.1	3.6
V threatened without weapon	12	33.3	16.7	15.4	16.7
V struggled, ducked, blocked blows, held onto property	400	37.5	18.8	4.5	3.6
V chased, tried to catch or hold O	5	0.0	0.0	0.0	0.0
V yelled at O, turned on lights, threatened to call police	251	33.9	19.2	4.4	4.3
V cooperated, or pretended to (stalled, did what they asked)	68	39.7	54.5	8.7	23.5
V argued, reasoned, pleaded, bargained, and so on	234	37.2	27.7	4.7	10.4
V ran or drove away, or tried; hid, locked door	198	22.7	8.3	1.0	0.0
V called police or guard	58	37.9	12.8	3.4	0.0
V tried to attract attention or help, warn others (cried out for help, called children inside)	53	49.1	38.7	3.8	8.3
V screamed from pain or fear	105	59.0	52.4	9.4	16.7
V took other SP actions	189	13.8	1.5	1.6	0.0
Any SP action taken	1,013	26.8	11.7	2.7	2.2
No SP actions taken	265	19.2	—	2.3	—
Total incidents[b]	1,278	25.2	5.6	2.5	1.0

[a]Injuries other than rape itself.

[b]Total incidents are smaller than the sum of separate counts of SP actions because some victims used multiple SP actions.

victims resisted in some way, 54% of the rape attempts were completed, but only 19% of rape attempts were completed after the victim took SP actions; 26% involved the victim suffering some nonsexual injury after taking SP actions, and 5% involved the victim suffering a more serious nonsexual injury. In contrast, among the 177 incidents involving victims who did not resist, 88% of incidents resulted in rape completion, 25% of such incidents resulted in a nonsexual injury, and 2.8% resulted in serious nonsexual injury. Overall, victim SP during rape attempts was associated with significantly lower risks of rape completion and roughly the same risk of serious nonsexual injuries as compared with taking no SP actions. These figures suggest that resistance during rape attempts could have provoked offenders to inflict additional serious injuries on victims in no more than 2.4% of all rape incidents: the 5.2% post-SP serious injury rate among resisting victims, minus the 2.8% "baseline" serious injury rate that prevailed even among nonresisting victims.

There were only nine sample cases of rape victims resisting with weapons, only one of which involved use of a gun. Nevertheless, in these nine cases, none of the victims suffered a rape completion after resisting with a weapon, and none suffered any injury, serious or not, after doing so. Among victims who did suffer some additional physical injury, all were injured *before* taking SP actions with weapons.

Similar patterns were found among 1,278 nonrape sexual assaults. Among incidents involving victims who resisted, only 11.7% of the victims were nonsexually injured *after* resisting, and only 2.2% were seriously injured after resisting. Among nonresisting victims, the rate of nonrape injury was higher. In the 265 incidents with nonresisting victims, 19.2% resulted in victim injury, and 2.3% resulted in serious victim injury. If we view these injury rates among nonresisting victims as indications of the "baseline" level of danger prevailing in assaults even without any victim defensive actions, resistance does not appear to add to this level of risk of injury. Of the 17 sample cases of armed resistance, none resulted in injury after the victim used a weapon.

In sum, resistance, including armed resistance, rarely is followed by the offender inflicting further injury on the victim, and almost never by the infliction of serious injury. A wide variety of victim resistance strategies appear to be free of any substantial risk of provoking aggressors into inflicting further injury on the victim. These conclusions can be drawn even before performing complex multivariate tests because even if one were to make the extreme assumption that in all cases of post-SP injury, victim resistance alone caused the offender to hurt the victim, it would still be valid to conclude that resistance rarely causes the victim to suffer further injury. In reality, it is unlikely that all crime victims who resisted and then were injured suffered those injuries because they resisted, since some offenders were probably going to hurt their victims regardless of whether the victims resisted. Thus, the post-SP injury percentages are properly viewed as upper limits on the share of crimes in which protective actions provoked offenders into injuring the victim.

These simple injury rates, however, cannot tell us whether resistance actually reduces risk of injury. Perhaps victims resist only in situations that were already relatively safe, or only resist offenders who appeared unlikely to hurt them. The figures

likewise cannot tell us which protective actions are relatively more effective or harmful because they do not reflect controls for other factors influencing assault outcomes. Therefore, multivariate controls are needed.

Multivariate Results

Rape completion. Table 4 displays findings from the logistic regression analysis assessing the impact of each type of SP action on whether rapes are completed versus attempted, controlling for an extensive set of other possible determinants of rape completion. The first column presents findings based on an analysis intentionally designed to have the same flaws as most past research, in that they show the association between protective actions and rape completion without respect to whether rape completion preceded or followed resistance. Odds ratios below 1 for an SP variable show that the indicated resistance tactic is associated with a lower likelihood of rape completion, compared with nonresistance, while odds ratios over 1 indicate that the tactic is associated with a higher likelihood of rape completion. The number shown in parentheses below each odds ratio is the ratio of the estimated logistic regression coefficient over its estimated standard error.

In this analysis, most forms of resistance seem to reduce the risk of rape completion, though the association is sometimes not statistically significant. We cannot be sure, however, that resistance prevents completion if we do not know the temporal order of the two. Perhaps there is a negative association merely because once the rape is completed, resistance seems to the victim to be pointless. Or perhaps the appearance, early in the encounter, that completion is inevitable demoralizes the victim and discourages resistance.

The second column of Table 4 presents findings from an analysis that addresses the problem of sequence. Here the dependent variable denotes whether the rape was completed after the victim took protective actions. Victims were coded "1" if they took SP actions and were raped *after* doing so, and were coded "0" if they took SP actions and were not raped after doing so, the latter group including incidents in which rape was completed before the victim took any SP actions. The results in the second column are based on a sample composed only of victims who took some kind of protective action, since the concept of rape completion happening after SP actions does not apply to incidents in which no SP actions were taken.

This analysis addresses the question "Among rape victims who did something for self-protection, which actions were relatively more effective in averting completion of the rape attempt?" Only relative effects are estimated in this analysis because estimating "absolute" effectiveness would require a comparison with incidents in which there were no SP actions of any kind taken by the victim. We selected "called the police" as the omitted category because it is sometimes presented as the officially recommended course of action for victims, and thus can serve as a useful point of comparison. The choice of an excluded category, however, has no effect on estimates of the relative effectiveness of different SP actions. It is important, however, to understand that a

Table 4. Self-Protection (SP) Effects on Rape Completion.

Variable	Odds ratio (Coefficient/*SE*)		
	Rape completed	Rape completed after SP[a]	Rape completed after SP[b]
Victim's SP			
V attacked O with gun; fired gun	—	—	—
V threatened O with gun	—	—	—
V attacked O with other weapons (knife, etc.)	0.00 (0.00)	17.70 (0.00)	0.00 (0.00)
V threatened O with other weapon (knife, etc.)	0.23 (−0.98)	29.17 (0.00)	5.31 (0.00)
V attacked O without weapon (hit, kicked, etc.)	**0.35 (−3.83)**	1.82 (0.99)	*0.20 (−3.70)*
V threatened without weapon	2.47 (0.73)	4×10^8 (0.00)	2×10^9 (0.00)
V struggled, ducked, blocked blows	**0.38 (−4.72)**	1.11 (0.20)	*0.15 (−5.31)*
V chased, tried to catch or hold O	0.00 (0.00)	—	—
V yelled at O, turned on lights, threatened to call police	**0.40 (−3.45)**	0.72 (−0.57)	0.40 (−1.82)
V cooperated, or pretended to (stalled, did what they asked)	*2.96 (2.42)*	4.45 (1.74)	1.41 (0.46)
V argued, reasoned, pleaded, bargained, etc.	1.27 (0.93)	**4.53 (2.88)**	1.27 (0.55)
V ran or drove away, or tried to; hid, locked door	**0.28 (−4.27)**	0.39 (−1.30)	*0.13 (−3.66)*
V called police or guard	0.57 (−1.02)	—	0.84 (−0.17)
V tried to attract attention or help, warn others (cried out for help, called children inside)	0.47 (−1.51)	*0.07 (−2.14)*	*0.14 (−2.07)*
V screamed from pain or fear	*1.96 (1.98)*	4.02 (1.87)	*4.61 (2.35)*
V took other SP actions	1.05 (0.14)	1.62 (0.59)	*0.19 (−2.44)*
Power difference between V and O			
O age 15-29 and V either under 15 or 30 or older	1.47 (1.14)	1.94 (0.94)	1.12 (0.23)
Number of O − Number of V	*1.43 (2.06)*	1.70 (1.27)	1.62 (1.70)
O was male, V was female	1.71 (0.55)	2×10^8 (0.00)	1.35 (0.24)
Offender weapons and attack			
O had gun	1.04 (0.07)	2.55 (1.00)	1.18 (0.26)

(continued)

Table 4. (continued)

Variable	Odds ratio (Coefficient/*SE*)		
	Rape completed	Rape completed after SP[a]	Rape completed after SP[b]
O had knife	1.05 (0.10)	*14.76 (2.02)*	2.43 (1.10)
O had sharp object	1.09 (0.05)	0.00 (0.00)	0.00 (0.00)
O attacked V	3×10^9 (0.00)	1×10^9 (0.00)	5×10^9 (0.00)
Victim characteristics			
Child in the victim's household	1.04 (0.18)	2.03 (1.35)	1.55 (1.32)
V owned the house	0.79 (−1.11)	**0.20 (−2.86)**	**0.32 (−3.18)**
V had a job last week or for 2 weeks last 6 months	*0.60 (−2.29)*	0.44 (−1.49)	0.61 (−1.43)
V was 65 years or older	*0.07 (−2.53)*	—	0.09 (−1.83)
V was married	1.34 (0.80)	3.40 (1.40)	1.46 (0.66)
V had high school diploma or higher	1.24 (0.99)	1.89 (1.32)	1.22 (0.57)
V was Black	0.53 (−1.69)	**0.09 (−2.28)**	*0.23 (−2.20)*
V was Asian	3.12 (1.39)	5×10^9 (0.00)	1×10^9 (0.00)
V was Hispanic origin	0.75 (−0.77)	1.22 (0.28)	0.81 (−0.40)
Number of victimizations in last 6 months	1.02 (0.79)	0.86 (−1.22)	1.01 (0.60)
Offender characteristics			
O was gang member	0.73 (−0.74)	6.18 (1.44)	1.88 (0.90)
O was on substance (alcohol or drugs)	*0.67 (−2.01)*	0.67 (−0.84)	0.69 (−1.12)
O was V's sexual intimate	1.52 (1.43)	1.34 (0.37)	1.67 (1.14)
O was V's family member	0.74 (−056)	3.99 (1.20)	0.98 (−0.02)
O was V's acquaintance (no family, work acquaint)	0.94 (−0.26)	1.57 (0.81)	0.94 (−0.18)
O was V's work acquaintance	0.80 (−0.40)	0.55 (−0.34)	2.83 (1.06)
O was Black	*2.39 (2.05)*	2.02 (0.67)	1.67 (0.71)
O was White	1.89 (1.86)	0.86 (−0.21)	0.87 (−0.27)

(continued)

Table 4. (continued)

Variable	Odds ratio (Coefficient/*SE*)		
	Rape completed	Rape completed after SP[a]	Rape completed after SP[b]
O was repeat O	0.95 (−0.18)	0.42 (−1.15)	0.59 (−1.33)
Incident circumstances			
Incident occurred in rural area	*2.00 (2.36)*	0.61 (−0.75)	0.83 (−0.41)
Incident occurred in urban area	0.95 (−0.23)	0.57 (−1.04)	*0.45 (−2.14)*
Incident occurred at home	*2.03 (2.37)*	**6.25 (2.62)**	**3.62 (2.72)**
Incident occurred near home	*1.89 (2.20)*	*4.48 (2.19)*	*2.53 (2.01)*
Incident occurred in public place which may have security	0.97 (−0.06)	0.00 (0.00)	0.53 (−0.88)
Incident occurred with third parties present	*0.55 (−2.13)*	0.41 (−1.35)	*0.40 (−2.14)*
Constant	75.87 (0.00)	0.00 (0.00)	0.00 (0.00)
Sample size	673	208	358
−2 Log-likelihood	671	157	313

[a]Not including No-SP group; "Called police or guard" is the omitted category.
[b]Including No-SP group; "No SP" is the omitted category.
Bold: $p < .01$ (two-tailed). Italic: $.01 < p < .05$ (two-tailed).

given SP action may be quite effective even if its coefficient in this analysis was not significantly different from 0, if one regards calling the police as an effective action.

In this analysis, the effectiveness of most SP actions did not significantly differ from calling the police, suggesting that all SP actions are roughly equally effective in preventing rape completion. Resistance in general appears to be effective in preventing the completion of rape attempts, in light of the finding that only 19.1% of attempts were completed after the victim resisted, compared with an 88.1% completion rate in which the victim did not resist in any way. There were three exceptions to this generalization. First, the only SP tactic that significantly increased the likelihood of rape completion (relative to calling the police) was "arguing, reasoning, or pleading" with the rapist; this strategy increases the odds of completion by a factor of 4.5. This is noteworthy because this is the second-most common type of SP action taken by rape victims (first column, Table 2). Second, cooperating with the rapist, or pretending to do so, has a similarly large effect increasing the likelihood of completion, though the association is not quite significant at the .05 level. Third, "trying to attract attention or help/cried out for help" appears to significantly *reduce* the risk of rape completion below that associated with calling the police. "Screaming from pain or fear" also appears to be less effective than calling the police, although the difference was not statistically significant. Results concerning this strategy, however, are ambiguous because it is possible that this behavior is the result of, or (when it precedes completion) the anticipation of, the rape completion.

Finally, we analyzed post-SP rape completion using a sample that included incidents in which the victim did not take any SP actions. In this analysis, the outcome variable, post-SP rape, would be coded "1" if either (a) the victim took some SP actions and rape was completed after that, or (b) took no SP and rape was completed. It was coded "0" if (a) the victim took SP actions and the rape attempt was not completed, (b) took SP action and the attempt was completed, but before SP actions, or (c) took no SP action and rape was not completed. Cases where the victim reported that SP actions and injury occurred simultaneously were treated as missing, since it was impossible to establish the SP-injury sequence in these incidents. Since "no-SP" was treated as the excluded SP category in this analysis, the odds ratio for SP variables can be interpreted as reflecting a comparison between each specific SP tactic and taking no SP actions at all. This analysis, therefore, provides estimates of the "absolute" effectiveness of SP strategies as compared with nonresistance.

The third column in Table 4 presents the results of this analysis. The odds ratios are directly comparable with those of the first column. This comparison directly establishes the effects of taking account of the sequence of injury and SP actions, as this is the only difference between estimates reported in the first column and those reported in the third column. Most SP actions are associated with a lower risk of rape completion as compared with nonresistance, many of them significantly so. Leaving aside the ambiguous findings concerning "screaming from pain or fear," no form of victim resistance was associated with a significantly higher risk of rape completion than nonresistance. The findings support prior research that found that many SP actions were effective in reducing the risk of rape completion. The most effective tactics for

avoiding completion were: (a) running or driving away/hiding/locking door, (b) attracting attention/calling for help, (c) physically struggling, (d) an unspecified miscellany of "other actions," and (e) unarmed attacks on the rapist. These SP actions appear to decrease the risk of rape completion about 80% to 86%, compared with nonresistance.

There are no estimates of the effects of victims using guns to attack or threaten offenders, because the NCVS sample included only a single case of a rape victim using a gun. (For similar reasons, there are no estimates of the effect of chasing or trying to hold the offender on post-SP rape completion.) Likewise, odds ratios for the use of other (nongun) weapons are uninterpretable and highly unstable because the odds are based on tiny numbers of incidents in which these tactics were used and the complete absence of any sample cases in which rape completion followed their use (see Table 2, "Rape" panel, column labeled "% Completed after SP"). There were no sample cases of rape attempts being completed after victims used weapons to resist. Thus, although it is impossible to estimate meaningful multivariate logistic regression coefficients and odds ratios for the armed resistance variables, the complete absence of rape completion following use of this tactic certainly suggests that it is effective.

Physical injury other than rape. Some scholars have argued that even though victim resistance may reduce the risk of rape completion, it increases the risk of other injuries by angering the rapist into further attacks. Table 5 presents findings from analyses of the impact of each SP action on whether the offender inflicted nonsexual injuries, that is, those other than rape, attempted rape, or the verbal threat of rape. The results presented in the first column show associations between SP actions and nonsexual injury in rape incidents, without respect to whether injury preceded or followed resistance. These results, at first glance, seem to support the idea that some SP actions increase the risk of physical injury. "Attacking without weapons," "struggling," and "screaming from pain/fear" are all significantly associated with higher injury rates compared with nonresistance. The results, however, are misleading because they do not take into account the temporal sequence between SP action and injury. The positive associations might reflect victims being injured, and then taking SP actions they might otherwise not have taken. These results are shown to illustrate the kinds of findings that were obtained in past research that did nothing to take account of the sequence of victim SP actions and injury.

The estimates in the second column take into account the temporal sequence; the dependent variable measures nonsexual injury inflicted after SP. That is, an incident is assigned the higher code only if the victim first took some SP action and was then injured. Incidents in which victims took no SP actions at all were excluded from this analysis, and the omitted reference category is "calling the police." The effects of most SP variables were not significantly different from those of calling the police. Only "screaming from pain or fear" was associated with a significantly higher risk of injury than calling the police. This result, however, is hard to interpret, even though sequence was taken into account, as the positive association may be due to victims screaming from fear shortly before the injury was inflicted. In such cases, it would be more

Table 5. Self-Protection (SP) Effects on Injury Other Than Rape.[a]

	Odds ratio (Coefficient/*SE*)					
	Rape			Sexual assault		
SP Strategy	Injury	Injury after SP[b]	Injury after SP[c]	Injury	Injury after SP[b]	Injury After SP[c]
V attacked O with gun; fired gun	—	—	—	—	—	—
V threatened O with gun	—	—	—	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
V attacked O with other weapons (knife, etc.)	6×10^9 (0.00)	0.00 (0.00)	0.00 (0.00)	7×10^9 (0.00)	0.00 (0.00)	0.00 (0.00)
V threatened O with other weapon (knife, etc.)	0.24 (−0.86)	174.92 (0.00)	6.11 (0.00)	0.18 (−1.15)	0.00 (0.00)	0.00 (0.00)
V attacked O without weapon (hit, kicked, etc.)	**1.77 (2.16)**	2.95 (1.68)	1.85 (1.33)	1.46 (1.69)	1.89 (1.42)	1.27 (0.67)
V threatened without weapon	0.49 (−0.67)	0.04 (−0.64)	0.15 (−0.69)	0.52 (−0.71)	0.11 (−0.53)	0.29 (−0.51)
V struggled, ducked, blocked blows	**1.86 (3.19)**	1.69 (0.99)	1.05 (0.14)	**1.97 (4.10)**	*2.36 (2.22)*	1.12 (0.39)
V chased, tried to catch or hold O	0.00 (0.00)	—	—	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
V yelled at O, turned on lights, threatened to call police	1.22 (0.80)	2.34 (1.54)	1.58 (1.02)	0.92 (−0.43)	1.35 (0.76)	0.96 (−0.13)
V cooperated, or pretended to (stalled, did what they asked)	0.63 (−1.32)	3.79 (1.27)	0.97 (−0.04)	0.98 (−0.06)	*5.46 (2.30)*	2.38 (1.42)
V argued, reasoned, pleaded, bargained, and so on.	1.21 (0.82)	2.07 (1.28)	1.63 (1.13)	1.38 (1.66)	*2.80 (2.52)*	1.78 (1.74)
V ran or drove away, or tried; hid, locked door	1.16 (0.52)	1.16 (0.24)	0.78 (−0.47)	0.92 (−0.37)	1.06 (0.13)	0.55 (−1.42)
V called police or guard	2.62 (1.82)	—	0.31 (−1.26)	**3.15 (2.60)**	—	0.57 (−.68)
V tried to attract attention or help, warn others (cried out for help, called children inside)	1.27 (0.51)	3.22 (1.31)	2.72 (1.37)	1.27 (0.62)	1.97 (0.95)	1.98 (1.17)
V screamed from pain or fear	**3.31 (3.98)**	**5.31 (2.16)**	**6.29 (3.01)**	**3.40 (4.56)**	**4.41 (2.66)**	**5.62 (3.55)**
V took other SP actions	0.90 (−0.33)	0.86 (−0.13)	0.40 (−0.94)	*0.5 (−2.33)*	0.24 (−1.60)	**0.09 (−2.90)**
Sample size	673	201	351	1,178	569	798
−2 Log likelihood	747	139	314	1,054	254	476

[a]Coefficient and *SE* estimates for variables other than SP actions are not shown, to save space.
[b]Not including No-SP group; "calling the police" is the omitted category.
[c]Including "no-SP incidents; "no SP" is the omitted category.
Bold: $p < .01$ (two-tailed). Italic: $.01 < p < .05$ (two-tailed).

accurate to say that imminent injury caused victims to scream, rather than the victim's screaming provoking the offender to attack. Generally, once sequence is taken into account, the evidence does not support the claims that resistance increases the risk of nonsexual injury, or that forceful resistance is more likely than nonforceful resistance to provoke offenders into attacking and injuring rape victims. It may currently be impossible to find statistically significant effects of many of the SP actions on injury, because even in the largest available samples of rapes, sample sizes are relatively small. Keeping this statistical limitation in mind, our findings indicate that victim resistance does not significantly affect the risk of rape victims suffering additional injuries.

The middle panel of Table 5 displays estimates of models pertaining to injury in "sexual assaults," a category that includes victimizations of a sexual nature other than rapes or attempted rapes. As with the rape analysis, the results indicate that SP tactics generally have no significant association with injury, and the only SP action that appears to elevate the risk of injury is the victim screaming from pain or fear—a result whose meaning is ambiguous. Besides this tactic, the only tactic showing a near-significant injury-elevating effect was arguing, reasoning, or pleading with the offender—a nonforceful tactic. Again, there is no statistically significant support for the claim that forceful forms of resistance are more dangerous than nonforceful forms.

Serious injury. We conducted an additional analysis addressing the impact of SP actions on whether the victim suffered more serious nonrape injury, defined as injury (other than rape itself) more serious than cuts or bruises. In part because of the rarity of serious post-SP injury (Tables 2 and 3, right-most column of Rape and Nonrape Sexual Assault panels), no coefficient was significantly associated with serious injury among either rape incidents or sexual assaults (results not shown). In the larger sample of all assault incidents, many victim resistance actions were associated with a lower risk of serious injury than nonresistance, as was found in the analysis of all injury.

An analysis of information provided in interviews with crime victims cannot take account of the most serious possible injury, death. Tark and Kleck (2004) estimated that, at most, 1 in 4,208 rapes and sexual assaults results in the death of the victim. Thus, in our sample of 1,278 rapes and sexual assaults, there probably would not have been a single murdered victim even if we had used sampling methods that could capture murdered victims (e.g., using proxy reports from relatives of victims). Our findings that resistance does not provoke the inflicting of nonfatal injury provide strong reason to expect that it likewise does not provoke the inflicting of fatal injury.

Are the effects of protective actions contingent on other conditions? Some scholars have suggested that the effectiveness of different defensive actions may depend on a variety of conditions under which they are used. We examined whether the effects of each SP action differ depending on: (a) the victim–offender relationship, particularly, when the victim and offender(s) are sexual intimates (e.g., Bachman, Saltzman, Thompson, & Carmody, 2002; Ruback & Ivie, 1988), (b) offender alcohol consumption, (c) location of the incident (at home or not), (d) time (day vs. night), and (e) the

number of offenders. In the post-SP rape completion models, we did not find that the effectiveness of SP actions depends on these conditions. No more than 1 out of 16 interaction variables had a significant coefficient in any one model, and one would expect one coefficient to be "significant" at the .05 level solely as a result of chance, due to the large number of hypothesis tests. Furthermore, the signs of the coefficients were as likely to be contrary to theoretical expectations as consistent with them (results not shown). On the whole, the effects of victim actions on rape completion or injury do not significantly vary depending on these conditions.

Discussion

A number of limitations of these data need to be made explicit. First, many rape victimizations are not reported. While the problem is less severe in victim survey samples than in samples of crimes known to police, it is well known that rape victims are often reluctant to report victimizations, particularly when committed by intimate offenders (Bachman, 1998). The underreporting of sexual assaults aggravates the problem of small sample sizes and contributes to making standard errors of coefficient estimates so large that fewer estimates of the effects of SP actions could be significantly different from zero. Furthermore, rape victims may be less likely to report incidents involving certain kinds of SP actions. For example, they may not report use of weapons because weapon possession is often unlawful, especially in public places (Kleck & Gertz, 1995). Victims may be reluctant to report unsuccessful SP actions because it makes them look foolish or ineffectual, or may fail to report successful SP actions because they do not think rape attempts that did not result in rape completion or other injury qualify as crimes or merit reporting (Felson, Messner, & Hoskin, 1999; Hindelang & Gottfredson, 1976). Furthermore, the NCVS does not measure various circumstantial factors that can influence victimization outcomes, such as the victim's alcohol consumption and the relative physical power of victims and offenders. Finally, given the impossibility of experimental research on this topic, it should be noted that our findings are necessarily based on observed associations between victim actions and assault outcomes, thereby precluding definitive conclusions about causal effects.

None of the nine sample cases of armed resistance resulted in either rape completion or other injury following SP actions. Given the small number of relevant cases, this finding only approached significance and must be regarded as merely suggestive, but it is consistent with prior research. Kleck and Sayles (1990) found that armed resistance was the most effective victim strategy, of six considered, in avoiding rape completion. Likewise, Guerette and Santana (2010) found armed resistance ("threatened or used object, knife, or gun") to be the most effective tactic in preventing rape completion. Finally, although Clay-Warner (2002) did not separately assess armed resistance, she found that the broader "physical protective actions" category that included armed resistance was the most effective category of protective actions, of three considered, in preventing rape completion.

To summarize, most SP actions, both forceful and nonforceful, either significantly reduce the risk of rape completion or have no significant effects. In particular, actions

such as attacking without weapons, struggling, running away or hiding, and trying to attract attention or help appear to reduce the risk of rape completion over 80% compared with nonresistance. Furthermore, the cases of rape victims using weapons to resist appear to have been completely effective in preventing rape completion and avoiding post-SP injury. Most SP tactics do not significantly affect the risk of additional physical injury. More generally, the findings did not support the argument that forceful SP actions are less effective or more risky than nonforceful SP actions. Indeed, the only SP tactics associated (albeit usually nonsignificantly) with increased risk of rape completion were nonforceful tactics—cooperating or pretending to cooperate with the offender, or arguing or pleading with the offender. Overall, our data indicate that rape victims' SP actions generally reduce the probability of rape completion, without significantly raising the risk of additional injury.

We believe that these findings imply that any police officers and rape victim support groups who counsel against forceful resistance should reconsider these policies. The notion that resistance increases the victim's chances of additional injury beyond the rape itself is not supported by the data. Thus, it is not helpful that those offering advice to prospective victims limit their suggestions to avoidance strategies. While potentially useful, such advice does not help those who cannot, despite their best efforts, avoid such situations and are confronted by a would-be assaulter. As Fisher, Daigle, and Cullen (2008) concluded, coupling "learning how to use effective SP action when threatened or assaulted" with education on avoidance of risky situations "is critical to preventing rape" (pp. 171-172). In any given threatening situation, some defensive tactics may be feasible while others are not. Therefore, self-defense training should focus on providing prospective victims with knowledge of a wide array of tactics, both forceful and nonforceful, from which to choose. For their part, future researchers might explore in greater detail which specific tactics have worked best in which kinds of situations.

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Gary Kleck is a professor of criminology and criminal justice at Florida State University. He received his doctorate in sociology from the University of Illinois in 1979. He is the author of *Point Blank: Guns and Violence in America*, which won the 1993 Michael J. Hindelang Award of the American Society of Criminology; *Targeting Guns* (1997); and with Don B. Kates, Jr., *The Great American Gun Debate* (1997) and *Armed* (2001).