Resistance and Nonfatal Outcomes in Stranger-to-Stranger Predatory Crime

Richard Block*
Wesley G. Skogan[†]

This article examines the consequences of encounters between strangers that might have resulted in robbery or rape and explores how the eventual outcomes of those incidents were related to the resistance offered by their potential victims. It is based on data from the National Crime Survey. Although the conclusions necessarily are tentative, it appears that forceful resistance was related to less frequent success by robbers, but robbery victims resisting forcefully had a greater risk of being physically attacked. Forceful resistance in potential rape incidents was related to higher risk of attack and bodily injury with no apparent reduction in risk of rape. On the other hand, victims who were able to offer nonforceful resistance reported a reduced risk of being robbed and suffered less frequent attack and injury. In rape incidents, nonforceful resistance was linked to lower risk of actual rape but was unrelated to risk of attack or other forms of injury.

This article examines the consequences of potentially violent encounters and how the outcomes of those incidents are linked to victim and offender characteristics and events at the scene of the crime. It focuses on the relationship between various forms of resistance on the part of potential victims and the eventual consequences of incidents that threaten rape and robbery. There has been surprisingly little research on what victims and offenders actually do during the course of confrontational crimes. Ironically, more has been written about the provocative, precipitative, and negligent role of victims in "causing" their own fate than about the capacity of people to ward off predators (Fattah, 1984). But the targets of crime face on-the-spot dilemmas—to flee or fight or give up—sometimes in the face of a weapon or in response to a surprise attack. The decisions they make can have consequences for their very lives.

This report describes the settings in which robbery and rape encounters occurred, the threats mounted by offenders, and the types of resistance offered by their targets. Then it considers the relationships among all of these factors and the outcomes of the incidents, measured by their success or failure and the injuries and/or losses sustained by their targets.

Our analysis is based on data from the National Crime Survey (NCS), which gathers information on criminal incidents through personal interviews with victims.

^{*}Department of Sociology, Loyola University of Chicago, Chicago, Illinois.

[†]Center for Urban Affairs and Policy Research, Northwestern University, Evanston, Illinois.

There have been useful studies of victim resistance, using police files, but police reports generally distort the apparent effects of victim resistance because they greatly underrepresent instances of *successful* resistance. Attempted crimes often go unreported or unrecorded because their targets have avoided their worst consequences (Block & Block, 1980). This may be why Conklin (1972) found little relationship between victim resistance and either the presence of weapons or the use of force during officially recorded robberies, whereas here we report quite the opposite. The NCS documents a large number of attempted incidents: For the years examined here, more than half of all rape incidents did not result in forced sexual intercourse, and nothing of value was stolen in about 40% of robberies. These large proportions should stimulate more research on the determinants of the success or failure of crimes, for victim resistance doubtless is only one of the determinants.

The NCS is survey-based in order to gather data on incidents that were not recorded by the police. Each month, the NCS interviews national samples of about 21,000 persons 12 years of age and older, asking them about their experiences with crime during the past 6 months (cf. Garofalo & Hindelang, 1977). Rape (forced sexual intercourse) and robbery (theft by force or threat of force) are two of the crimes measured by the NCS, and their victims are questioned in some detail about the incidents in which they were involved. Because most of those interviewed are not recent victims, this report combines the results of 7 years of the NCS in order to assemble data on a large sample of incidents.

This analysis is based on only a subset of rape and robbery incidents identified by the NCS. Most important, we do not consider robbery and rape cases in which the target was acquainted with or recognized the offender. There are two reasons for this. Previous research has shown that non-stranger crimes are not well measured in this type of survey (Skogan, 1981; Sparks, 1981). Our preliminary analyses also indicated that relationships between many key variables were distinctly different for stranger and nonstranger crimes. Excluding all but incidents involving strangers disqualified about 28% of robberies uncovered in NCS interviews between 1973 and 1979. Many more rapes and attempted rapes involved persons who knew one another, so this criteria excluded 40% of those cases.

It is also important to note that violence with *fatal* results is also excluded, for the NCS does not question the survivors of homicide victims. As a result, we probably underestimate the importance of more lethal weapons such as guns and knives, for the probability of a gun or a knife attack resulting in death (and therefore being excluded from the NCS) is much higher than for other forms of physical violence (cf. Block, 1977). In an actuarial sense, the universe of nonfatal stranger incidents represented here so greatly outnumbers rape and robbery-related homicides that including the latter in their correct proportion actually would not affect many of our statistical conclusions. However, risk of death doubtless plays an enormous role in shaping victims' responses to their predicament and should not be discounted on this basis. We also excluded a few males who were identified as rape victims, as well as targets of robbery (all attempts) who described their occupation as police officer or security guard. Finally, the NCS does not cover commerical robbery, in which guns are very frequently used.

After these subtractions, consolidating NCS data for the period 1973 to 1979 yielded a (unweighted) total of 2,903 completed and attempted stranger-to-stranger

robbery incidents and 347 stranger-to-stranger rape incidents. Official reports based on the NCS (for example, U.S. Department of Justice, 1985) use complex weights to adjust the survey data for sampling procedures, nonresponse, and multiple victims, and to inflate the sample data to population estimates. The descriptive analyses presented here (but not the final multivariate analyses) uses all but the "inflation weight" in order to present more accurate descriptions of the distribution of offender threats, victim resistance, and crime outcomes.

Despite its focus, this report does not intend to offer advice to potential victims. As we will point out below, the NCS is seriously flawed as a source of data on the *causal* implications of both victim and offender actions. It also describes only a limited set of the wide range of possible effects of potentially violent personal confrontations. However, this report does arrive at a fairly consistent set of empirical findings with regard to the correlates of outcomes for both rape and robbery, conclusions that may be important enough to encourage further research on the issue.

OFFENDER TACTICS: NUMBERS OF OFFENDERS, WEAPON USE, AND ASSAULT

Offender tactics often seem to play a key role in shaping the outcomes of robberies and rapes. The NCS asks only a few simple questions about offenders, but it includes detailed questions about the presence of weapons at the scene of each personal crime. Both factors were related to incident outcomes. We also examine here the frequency of physical assault—whether or not targets actually were attacked. This is especially important in robbery, where the role of physical assault is problematic. Unlike rape, a completed robbery need not include attack or injury to the victim.

Number of Offenders

Table 1 indicates that most robbery incidents involved multiple offenders, but most rape cases involved only a single offender. Overall, 11% of robberies and 4% of rapes involved four or more offenders, our working definition of a "gang." Not surprisingly, the number of offenders was related to the number of potential victims on the scene. Victims usually were alone; but the more targets on hand, the more offenders present. Also, robberies by youthful offenders were often carried out in gangs (these descriptive analyses are not shown).

Weapons

The presence of weapons was strongly related to target selection, offender actions, and victim reactions. The frequency with which various types of weapons were present in these cases is summarized in Table 1. Many robberies (almost 35%) and most rapes (64%) did not involve weapons of any type. In confrontations with weapons, guns and knives were quite likely to be present. Other types of weapons, such as bats or tire irons, were less frequently present.

Robbers' use of weapons was related to their choice of targets. Whereas women were slightly less likely than men to be robbed with a gun (22% vs. 30%), both

TABLE 1. Context and Weapons' Presence in Stranger Robbery and Rape

	% Rape	% Robbery	
Incident	(N = 385)	(N = 3061)	
Context			
At night	68	66	
In a dwelling	21	6	
On street, in park, etc.	49	65	
Victims alone at scene	80	70	
Number of offenders			
Lone	82	42	
4 or more	4	11	
Weapons present ^a			
None	64	35	
Other	4	12	
Knife	14	25	
Gun	17	28	
Victims physically			
attacked	65	50	
Weapon used to			
injure target			
Knife	1	5	
Gun	2	4	

^aWhen multiple weapons were present they were coded in the "highest" category (none to gun). Cases are weighted to account for sampling procedures, nonresponse, multiple victims, and other factors. The number of cases varied slightly from row to row; averages are given here.

teenagers and those over 60 were less likely to be threatened with a gun than people in the middle of the age distribution. The race of the targets of robbery was more strongly related to weapon threats than the race of offenders. Whites were much less likely to be confronted with a gun than were blacks (46% vs. 24%). Black robbery offenders confronting black targets were more likely to carry a gun (49%) than were black offenders confronting whites (27%). This percentage is only slightly larger than that for white offenders approaching white targets (20% with a gun).

Weapon use in rape incidents was less strongly linked to the characteristics of targets, perhaps because there was much less variation among targets. Most rape targets were young, most were confronted while alone, and all were women. Offenders who confronted black women were much more likely to approach their target with a gun (40%) than were those who confronted white women (13%).

Sometimes the weapons were used. A knife actually was used to stab a victim (nonfatally) in 22% of the robberies and 5% of the rapes in which they were present. However, given the small percentage of crimes that involved the presence of a knife or gun, their use affected only a small percentage of all crimes, as illustrated in Table 1.

Assault

A majority of targets of successful and attempted robbery and rape were physically attacked. Fifty percent of robbery targets and 65% of rape targets were attacked (see Table 1); the remainder were only threatened. There was a strong relationship between the role of weapons and the likelihood that targets were attacked, as documented in Table 2. Targets were physically attacked in only 26% of the robberies in which a gun was present but in 72% of the robberies without a weapon. Further, as we shall describe later, there was a very strong relationship between a robber's choice of weapons and his target's decision to resist. Guns appeared to be such credible threats that few targets in these cases offered any resistance, and armed robbers less frequently attacked their targets. In rape cases, just the opposite was true: armed offenders were more likely to attack their targets.

TARGET RESISTANCE

Although most targets of these crimes resisted in some fashion, targets of potential rapes were much more likely to resist than those approached by robbers (82% vs. 57%). The nature of that resistance was also different. In this analysis, we catalog all of the individual forms of resistance identified by the NCS into two general categories: nonforceful and forceful. *Nonforceful* resistance included reasoning or verbally threatening the offender, arguing with him, yelling for help, getting the attention of passersby, and trying to run away. *Forceful* resistance included physically fighting back, with or without a weapon. Targets of robbery were only slightly more likely to use nonforceful rather than forceful resistance (30% vs. 27%). Among targets of rape, nonforceful resistance was much more common (49%) than forceful resistance (33%). A few targets of these crimes recalled offering both forms of resistance; in almost every way they resembled forceful resisters, and in this study they are included in that category.

Any examination of target-offender interactions is limited by the format of the

TABLE 2. Weapons' Presence and Outcomes in Stranger Robbery and Rape

				,r	
Incident	Attacked (%)	Injured (%)	Hospital overnight (%)	Financial loss (%)	N^a
Robbery weapon					
None	72	39	1	50	916
Other	61	53	8	48	308
Knife	38	26	3	56	637
Gun	26	18	4	78	726
Rape weapon					
None	62	46	1	8	210
Other	82	74	0	8	15
Knife	85	72	5	17	4.5
Gun	76	7 1	10	39	56

^aNs differ from those in Table 1 because of missing data.

NCS. The most important limitation of the data is that respondents were not asked about the *sequence* of events that took place at the scene of the incident. One cannot tell if their resistance followed an attack or if an attack followed some initial resistance. Research by Feeney & Weir (1973) suggests that the time-ordering of offender attack and victim resistance may differ between armed and unarmed robbery cases with offenders in the latter category often "leading off" encounters with an unexpected attack. Forceful resistance on the part of victims may be in response to an attack, not an act that provokes an attack. We will argue below that this complexity precludes any "advice giving" based on these data, and for research purposes we utilize multivariate statistical analyses to control for a variety of factors linked to both resistance and outcomes, to help deal with the problem.

Resistance in Robbery

Offenders can affect the probability that targets will resist by choosing targets who are perceived as unlikely to do so or by threatening them in such a way that they will be less likely to resist. In these stranger-to-stranger incidents, old people were less likely to resist than were other targets, and blacks were less likely to resist than were whites; but men and women were equally likely to resist. However, men and women offered dramatically different forms of resistance.

Resistance to robbers was related to the target's age and sex. From their twenties to old age, the percentage of targets who did not resist increased from 36% to 64%. Of those who did resist, the percentage who resisted forcefully also declined with age, from 33% among targets in their teens and twenties to 16% of targets who were 60 and older. Women were more likely to resist nonforcefully (40%, vs. 26% forcefully), whereas men resisted forcefully (31%, vs. 17% nonforcefully).

Blacks were less likely than whites to resist robbery. Blacks also were more likely to be robbed with a gun, and fewer targets of any race were willing to resist a gun threat. However, even holding constant the offender's weapon threat, blacks were less likely to resist.

Forceful resistance was more frequent when three or more offenders were present; in turn, that type of attack was most frequent when victims were not alone and all of the participants were youthful. The presence of weapons was related to both resistance and the probability that offenders would attack. Although most robbers did not carry a gun, 33% of the targets of gun confrontations resisted. On the other hand, 58% of targets who were threatened with a knife resisted, and 71% of the targets of unarmed or "other weapon" robbery resisted.

Resistance in Rape

Resistance in rape was related to the location of the crime. Women who were confronted at home were somewhat less likely to resist. Age was not strongly related to resistance in rape, perhaps because there was little variation among victims. Black women were less likely to resist than were white women. As in robbery, part of this difference was related to the far greater likelihood that black women were attacked by predators armed with a gun. However, regardless of the offender's choice of weapon, black women were less likely to resist than white women.

The relationship between weapons and resistance was nearly as strong in rape as

for robbery. Women who were threatened with guns were less likely to resist than women who were threatened with any other weapon or no weapon at all. However, only 36% of all rape attempts involved a threat with any weapon. There were relatively few multiple-offender rape incidents (16% of the total), but, in general, as the number of offenders on the scene increased, the incidence of forceful resistance decreased and nonforceful resistance increased.

OUTCOMES OF ROBBERY AND RAPE

There has been a tremendous amount of research on the social and psychological effects of violent crime, much of which is summarized in a Task Force Report by the American Psychological Association (Kahn, 1984). However, the NCS focuses on only a few simple and practical consequences of victimization. The survey measures short-term physical and economic outcomes of crime: was something stolen; how much was lost; was the victim injured; was medical attention required? We also make some simplifying assumptions here about the motives of offenders. Cook (1980) and Conklin (1972) argue that some violent assault in the course of robbery is expressive rather than simply instrumental in nature. Cook sets this proportion quite high, at two-thirds of all robbery-murders. When this is true, inflicting injury as well as stealing something could be viewed as a "goal" of robbery. Likewise, Brownmiller (1975) argues rapists are more interested in exercising power or control over women than in the sexual aspects of the crime. However, victim surveys gather data on criminal incidents only from the point of view of their targets, and they are particularly unsuited for discerning the motives of offenders in incidents such as these that involve only strangers. They draw sketches of who did what to whom and what happened to the victim, and this report focuses on those issues.

Table 3 describes the frequency of the previously mentioned outcomes. Fifty-

TABLE 3. Outcomes in Stranger Robbery and Rape

Outcome	Rape $(N = 385)$	Robbery $(N = 3061)$	
"Attempted" crime ^a	68%	42%	
Financial loss	16%	58%	
Injury		0070	
Bodily injury only	15%	28%	
Raped only	16%		
Bodily injury and raped	16%		
Hospitalized overnight			
All cases	3%	3%	
Injury cases	10%	6%	
Loss if something			
stolen of value			
Mean	\$174	\$ 259	
Median	\$29	\$50	

^aAn "attempted" crime is an unsuccessful robbery in which nothing is taken, or an unsuccessful sexual assault.

eight percent of robberies and 16% of rapes resulted in property loss. Among cases with a loss of any kind (excluding attempted robbery and rapes without theft), the median loss for robbery was \$50 and for rape, \$29. (Mean losses were much higher because a few victims reported losing a great deal of cash.) Whether a woman was robbed or not during a rape or attempted rape incident was strongly related to her age. Women under 40 were much less likely to be robbed than women over 40. McDermott (1979) found the same pattern in her analysis of rape victimization in large cities, and she concluded that "theft may be an important motivational factor in rape attacks against older victims, whereas the act of rape itself may be more central when the victim is young" (p. 29).

Almost one-half of the rape targets and 28% of robbery targets were injured. In the analysis of rape incidents, it is useful to divide "injury" into three categories: injuries involving only sexual assault, those involving only other forms of physical injury (abrasions, broken bones), and those combining both types of injury. Of the injured rape targets, one-third were injured but not raped, one-third were raped but incurred no additional physical injuries, and one-third were both raped and received some other injury. Of those who were injured, 30% of robbery targets and 34% of rape targets required some medical attention; however, in both cases, only about 3% required an overnight hospital stay. Thus, although some injury is likely in these crimes, the risk of serious injury is not high. (But recall that crimes with fatal outcomes were excluded from this analysis. They may represent a substantial fraction of crimes with the most serious physical injuries.)

RESISTANCE AND OUTCOMES OF PREDATORY CRIME

The consequences of these incidents were related to characteristics of the target(s) and offender(s) and to the settings within which the incidents took place. Most important, they were related to target and offender actions at the scene. This section considers the relationship between physical attack, weapon use, resistance, and the consequences of these incidents. It includes a multivariate analysis of the *correlates* of attack, injury, and property loss, to reveal if—net of the effects of other confounding factors—various forms of resistance still appear to be linked to injury and loss.

Robbery

One of the factors most strongly related to a robber's chance for success in crimes described in the NCS was target resistance. The bivariate correlates of resistance are illustrated in Table 4. Something was stolen from 85% of the targets who did not resist but from only 41% of the targets who resisted nonforcefully and from 35% of those who resisted forcefully.

As Table 4 indicates, nonforceful resistance in robbery was unrelated to the likelihood that targets would be attacked or nonfatally injured, when compared to offering no resistance at all. On the other hand, forceful resistance was strongly related to the probability that targets would be attacked and injured. However, the slim differences in hospitalization rates depicted in Table 4 suggest that most forms of forceful resistance stimulated scuffling rather than serious attempts to injure victims.

TABLE 4. Resistance and Outcomes in Stranger Robbery and Rape

	Bodily injury (%)		Hospital	Financial loss		
Resistance			overnight (%)			N
Robbery			Martin State Control of the Control			
None	9	<u> 19</u>	3	85		1326
Nontorceful	2	28	$\overline{2}$	41		908
Forceful	44		4	3.5		835
	Raped only	Rape + bodily	Bodily only	Hospital overnight	Loss	
Resistance	(%)	(%)		(%)	· · · · · · · · · · · · · · · · · · ·	.N
Rape ⁴						
None	38	21	5	11	32	68
Nonforceful	10	11	12	0	14	190
Forceful	12	22	24	2	9	128

^aThe three injury categories for rape are mutually exclusive.

Table 5 presents the results of a multivariate analysis of the correlates of attrack, injury, and loss in these stranger-to-stranger robberies. We have seen that many features of such incidents are interrelated, and it is difficult to order them causally, especially the factors relating to on-scene events. Other correlates of both resistance and outcomes, such as age, sex, race, and the presence of weapons, are included in the analysis to control for their confounding effects. Table 5 then probes for an answer to the question: Net of the other factors considered in this report, do various forms of resistance still appear to be linked to risk of injury or loss? It does so by regressing measures of attack, injury, and loss on the contextual and processual factors considered in the sections above: target characteristics, number of targets and offenders on the scene, location, presence of various types of weapons, and resistance offered by targets. Of particular interest are identification and interpretation of the coefficients associated with the dichotomous measures of forceful and nonforceful resistance. Coefficients that are twice as large as their standard errors (significant at the $p \le .05$ level or better) are flagged in Table 5. Logistic regression was employed because the dependent variables are dichotomous. A pseudo-R² is presented in Table 5, which approximates the overall predictive power of the model.¹

The NCS employs an extremely complex sampling design, and for descriptive purposes (as above) it was useful to weight the data to present estimates of the national distribution of resistance, outcomes, and other factors. However, in the multivariate analyses presented here, those weights will be ignored, for tests of significance generally should be reserved for unweighted data.

The analyses summarized in Table 5 confirm the strong relationship between victim responses and nonfatal outcomes of robberies. Regardless of other measured factors, resistance of either sort during robbery was significantly related to a reduction in the probability that something would be stolen (both signs are negative). These coefficients can be converted into estimates of the *percentage of increase or decrease* in the risk of theft loss (over the average risk of loss) associated with adopting each

TABLE 5. Logistic Regression Analysis of Outcomes in Stranger Robbery^a

	Attacked		Among attacked injured ^b		Гinancial loss		
Correlate	Coeff.	S. E.	Coeff.	S. E.	Coeff.	S. E.	
Victim black	.14	. 1 1	.21	.16	.24	.12*	
Victim age	.00	.00	.02	.00*	.01	.00	
Victim female	.16	.09	.02	.13	.42	.10*	
Victim alone	.03	.09	.20	.12	.07	.09	
Outside	.16	.09	.00	.13	.09	.10	
No. of offenders	.26	.04*	.22	.06*	.30	.04*	
Other weapon	29	.14*	1.42	.23*	08	.15	
Weapon knife	-1.20	.11*	.40	.17*	.14	.11	
Weapon gun	-1.72	.11*	.32	.18	.84	.12*	
Nonforceful							
resistance	20	.09*	.04	.12	-1.50	.09*	
Forceful							
resistance	.92	.10*	.12	.13	-1.36	.10*	
Intercept	31	.17	86		.08	.18	
R^2	.16		.0	.06		.20	
N $$	2889		14	1413		2889	

^aData are unweighted for this analysis. Of the 2903 original cases, 14 are excluded here due to missing data on key resistance or outcome measures.

form of resistance by using a complex formula derived by Petersen (1985). In these data, forceful resistance to stranger robbery was related to a 32% decrease in risk of theft loss; nonforceful resistance, to a 35% decrease. Forceful resistance was related to an *increased* risk of attack (22% above average), whereas nonforceful countermeasures may have had the opposite effect (a weak but significant 5% below average). Neither form of resistance had much to do with risk of injury, as indicated by the insignificant coefficients associated with resistance in the "injury" column of Table 5. Risk of injury was dominated by the number of offenders and the presence of various weapons.

Rape

Table 4 depicted the relationship between resistance and crime outcomes for rape. Although resistance to rape was more common than resistance to robbery, the relationship between resistance and outcomes was similar. Overall, resistance was related to fewer negative outcomes in rape incidents. Women who resisted nonforcefully were *less* likely to be raped, attacked, injured, or robbed. Women who resisted forcefully were *more* likely to be attacked and injured, although somewhat less likely to be raped, than were women who did not resist. Those who did not resist at all were the most likely to be raped, to spend the night in the hospital, and to be robbed. Only about 60% of women who did not resist were raped, however, compared to a theft

^bIncludes cases with an attack only.

^cSee Aldrich & Nelson, 1984.

^{*}p < .05. S. E. = standard errors of estimates.

success rate of nearly 85% in robberies involving no resistance. The reasons for non-completion in cases of attempted rape and robbery without resistance cannot be disserted in the NCS: perhaps a third party intervened or passersby sufficiently distracted offenders in those incidents.

The findings reported above are quite consistent with the results of other studies of police files. Brown & Beyeler, n.d.). However, the multivariate analyses presented in Table 6 downplay some of the bivariate findings with regard to the link between resistance and injury or loss. Table 6 examines the correlates of three outcomes of potential rapes: if their targets were attacked in any way, if they were raped, or if they suffered (only) bodily injury of some other type. Controlling for many other factors in these rape cases, forceful resistance was significantly related to higher risk of both attack (27% above average) and non-rape injury (18% above average) but not to a risk of being raped. Nonforceful resistance was significantly related to reduced risk of rape itself (14% below average) but not to risk of attack or other forms of injury.

DISCUSSION

There is so much attempted crime described in the NCS—accounting for as much as three-quarters of the total in some categories—that some success at preventing injury or loss almost certainly must be attributable to the actions of the targets of offenses as well as to the strength or plans of would-be offenders. For example, residential crimes such as burglary may be thwarted by the "hardness" of targets, in the form of

TABLE 6. Logistic Regression Analysis of Outcomes in Stranger Rape⁴

Correlate	Attacked		Raped		Only other injury	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Victim black	47	.38	.55	.36	-1.39	.76
Victim age	.03	.02	.02	.01	00	.02
Victim alone	.68	.30*	1.05	.34*	.42	.45
Outside	62	.26*	72	.26*	.36	.34
No. of offenders	10	.16	.32	.17	22	.27
Other weapon	1.26	.75	98	.82	1.80	.68*
Weapon knife	1.47	.44*	1.05	.37*	.46	.45
Weapon gun Nonforceful	1.12	.40*	1.44	.36*	73	.77
resistance Forceful	32	.30	80	.28*	.22	.41
resistance	1.67	.31*	.38	.28	1.10	.34*
Intercept	77	.58	-2.19	.61*	-2.70	.86*
$rac{{{ m R}^2}_{ m pseudo}^{ m b}}{N}$.17 347		.16 347		.08 347	

^aData are unweighted for this analysis.

^bSee Aldrich & Nelson, 1984.

^{*}p < .05. S.E. = standard errors of estimates.

bars, locks, and alarms, or through the watchfulness of neighbors and passersby whintervene or call for the police. This research examined one preventive factor in the personal crime domain: resistance by potential victims.

Data from the NCS revealed that in robbery, nonforceful resistance (which in cluded yelling, trying to run away, reasoning with potential assailants, and attracting passersby) was related to lower levels of loss and less frequent attack and injury. Forceful resistance in robbery was also related to reduced risk of theft loss but, in contrast, was linked to greater risk of being physically attacked. In potential rape incidents, nonforceful resistance corresponded with a lower risk of actual rape but was uncorrelated with either increased or decreased risk of other forms of injury or attack when other factors were taken into account. Forceful resistance, on the other hand, was related to higher risk of attack and bodily injury and had no other apparent risk-reduction potential.

These conclusions are very tentative. Using the NCS, it is not possible to determine if resistance came before, after, or during an attack or threat. For instance, attack may have been forestalled by nonviolent resistance, or resistance may have been impossible because of a preemptive attack. The multivariate analyses presented here can take these measured contingencies into account only to a limited extent. The NCS also excludes incidents that ended in death, a factor that surely shapes perceptions of what kind of risk-taking is warranted in many circumstances. The fatal cases that were excluded doubtless would have been concentrated in the most serious injury categories (such as "hospitalized overnight") and would have contributed to a more dramatic portrait of the effect of guns and knives.

The generality of the findings presented here is further constrained by the study's focus on stranger-to-stranger crimes. For example, they largely took place outside, where more nonforceful forms of resistance may be available (for example, attracting the attention of passersby or running away). In the NCS, more nonstranger incidents took place inside. Incidents involving nonstrangers may provoke less violent resistance, but because they often involve aggression and anger, they still may result in more injury.

As Ziegenhagen and Brosnan (1985) point out, the complexity of potentially violent personal encounters is such that broad prescriptions concerning what targets should do are inappropriate. Cook (1986) comes to the same conclusion after carefully reviewing past studies based on police files and NCS data on weapon robbery by adults. However, because of the stakes involved, this has not kept the public from seeking answers to that question, and many police agencies have been forthcoming with advice of their own. These and other studies present evidence that evasive tactics by targets of personal crime and loss, especially robbery, may limit some types of injury, and the findings are substantial enough to recommend greater attention to the time-sequencing of target and offender actions in future victimization studies.

NOTES

 $^{^{1}}$ The pseudo R 2 is proposed by Aldrich and Nelson (1984). It is not often used and should be interpreted with caution. It is interesting to note that in every case it varies by no more than .01 from the R 2 for these variables in a standard OLS regression.

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