SHAPE SHAPE

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WEAPON USE IN ROBBERY

The use of weapons is an important analytic focus upon crime, both for criminologists interested in the pattern and practice of weapon use and for policy makers concerned with reducing the frequency with which lethal weapons are deployed and employed. They are interested in the extent to which weapons are *criminogenic* (their availability causes or increases crime) and *criminotropic* (their availability changes or redirects criminal activity). Answers to these questions would point to some probable effects of reducing the use of certain weapons, either by constricting the supply available for potential offenders or by raising the cost of employing them.

This paper investigates these questions, reviewing data on the use of weapons in both personal and commercial robberies in the United States. The extent to which the availability of weapons is criminotropic—affects the strategies employed by criminals—is explored by examining the

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relationship between weapon use and the ability of offenders to select targets with impunity, incapacitate their victims, and increase their security by extending control over the scene of the crime. More lethal weapons enable them to carry out these activities more effectively, increasing their take while decreasing the risks that they face in the process. Presumably, restriction of the supply of lethal weapons would reduce their effectiveness at these tasks, and the data indicate what some of the consequences of this decreased capability might be for the victims involved. Weapon control turns out to be a policy with mixed but generally positive consequences.

The extent to which weapons are criminogenic—increase the frequency of crime—is more complex; however, one interpretation of survey data on attributes of offenders and their characteristic tactics is that without lethal weapons, pursuing a professional criminal career could be much less appealing (more risky and less profitable) than it is at present. It thus is possible that restrictions on the availability or reductions in the use of the most lethal weapons would reduce selectively the total number of offenders at work. On the other hand, the need to maintain their "take" with the assistance of less firepower might serve to increase the total number of robbery incidents.

The sheer availability of weapons is seen by many as an independent causal force in the development of criminal careers, and as a major determinant of the possibilities of criminal action and the consequences of criminal victimization. Zimring and others (Zimring, 1968, 1972; Block and Zimring, 1973; Block, 1976) have argued forcefully that casual access to firearms contributes greatly to the probability that disputes will result in homicides, and that the diffusion of guns among young, black males accounts for most of the increase in the homicide rate in Chicago over the last two decades. The use of guns also is extremely frequent in commercial robbery. Block (1977) found that guns were employed in 80% of inside commercial offenses reported to the police in Chicago.

Table 1 presents the distribution of weapon use in two national samples of robberies. The data from individuals employed here are for robbery reports collected by the Census Bureau from the National Crime Panel. They occurred during calendar 1973. Robberies are differentiated from purse-snatchings and other personal property crimes by the use of force or threat of force by the offender. There are 1,023 personal robbery incidents available for analysis. Commercial robbery data were collected from establishments in the National Commercial Crime Panel. Those robbery incident reports refer to calendar 1974, for a complete set of the 1973 national commercial data are not available to the public. There are 421 commercial robbery incidents in the sample. (For a description of the surveys, see Skogan, 1976; U.S. Department of Justice, 1976.) The data indicate that approximately 20% of personal robberies, but almost two-thirds of commercial robberies, involved the use of a gun. Individual victims in the National Crime Survey were most frequently attacked by unarmed robbers, the second most common method of commercial offenders. Knives and "other" weapons (mostly clubs, rocks, and bottles) fall between the two in frequency, with knives being more common in both distributions.

TABLE 1: Weapon Use in Personal and Commercial Robberies

Weapon	Personal	Commercial
Gun	19.4	64.1
Kni fe	16.5	9.5
Other	10.4	5.0
None	53.7	21.4
(N)	(1023)	(421)

SOURCE: Computed by the author from all regular and series incidents from 1973 National Crime Panel and

In the analysis that follows, the ordering of weapon types presented in Table 1 will be employed as a measure of the "lethality" of those instruments, with firearms anchoring the top of the scale. Lethality refers to the ability of the wielder of a weapon to inflict grievous harm or death more or less irrespectively of his or her personal attributes (size, weight, skill). This ordering of lethalness is in accord, for example, with the proportions of deaths if injured attributed in police files to the weapons involved (Block, 1977; Newton and Zimring, 1970).

Conklin (1972) hypothesizes that some types of robbers employ weapons because they give them a sense of omnipotence and an ability to dominate psychologically their chosen victims. Reppetto (1974) reports that house burglars who do not trust their own control of their actions or who fear the serious consequences of a homicide conviction take the contrary course, and avoid confrontations which might require a weapon.

There is a consensus, on the other hand, that the empirical consequences of firearm deployment in robbery are often the opposite from what this suggests, The most recent and sophisticated study of police files on violent crime (Block, 1977) states the case clearly: brandishing a gun reduces the need of offenders to employ force, for it immobilizes their victims; because victims neither flee nor fight back, the weapon is not employed; as a result, gun crimes tend to produce fewer injuries, and are more likely to be successful from the point of view of the offender (they get some money), than nongun crimes. His data also indicate, however, that once they are employed, incidents involving guns (and then knives) are more likely than those involving less lethal weapons, or none at all, to result in serious injury or death.

Victimization survey data indicate clearly the importance of this role of weapons. In the survey a series of questions were asked about victim's reactions, determining which victims took no self-defensive actions, which undertook (or attempted) some "nonthreatening" maneuver (running away, screaming), and which reported that they themselves

hit their assallant, or brandished a weapon of their own in return. The more lethal the weapon, the less likely victims were to undertake either threatening or nonthreatening tactics, and the more likely they were to acquiesce to the demands of the robber. The correlation (gamma) between weapon type and this measure of victim response was .21.. Firearms were especially effective in forestalling precipitous victim reactions to robbery. Incidents involving guns were dramatically less likely than others to lead to any positive action on the part of their targets. The correlation between a no-gun/gun categorization of weapon use and this measure of victim activity was .37.

One alternative to employing a lethal weapon to control victim behavior is to utilize physical violence for the same end. The display of weapons may be the functional equivalent of the use of force. In the absence of weapons, violence may be necessary to encourage victims to give up their money, to prevent them from escaping, and to forestall aggressive reactions on their part. The survey data indicated that the use of force increased steadily with a decline in the lethality of weapons employed in robbery (gamma = .47). When weapons were not employed in an incident, force was used in fully two-thirds of all robberies, while that proportion declined to 25% among crimes involving guns.

The declining rate of resistance and the less frequent use of force in crimes involving more lethal weapons is reflected in the seemingly curious finding that the use of less lethal weapons seems to lead to more frequent injury. Those faced with firearms were least frequently injured (gamma = .47), while "other" weapons (rocks, clubs, bottles) apparently were the most dangerous. This is doubtless because, while capable of inflicting injury, they are the least credible of all weapons. More lethal weapons, on the other hand, enable robbers to avoid the use of violence under many circumstances.

In addition to intimidating the victim, both Hindelang (1976) and Cook (1976) suggest that weapons may encourage offenders to brave attacks against more difficult,

and possibly more lucrative, targets. Hindelang noted that weapons are more often used in commercial than in personal robbery, and that the former may require employee and bystander control which is facilitated by a gun. Cook reports that the more persons who accompanied or were covictimized with the individual interviewed in the Census Bureau's city surveys, the more likely the crime was to have been carried off with a gun. In another study, victims and bystanders were less likely to create a disturbance or call attention to the situation when weapons were displayed (Conklin, 1972).

The need to control potential "crowds" probably accounts in part for the high incidence of weapon use in commercial offenses. Only 15.8% of commercial offenses in the 1974 survey struck establishments with only one employee, while 91.9% of all personal robberles hit lone victims. The National Crime Panel data also revealed the relationship between the number of persons with a victim during a robbery incident (personal robberies) or the number of employees in an establishment (commercial robberies) and patterns of weapon use. In both cases, larger groups or establishments were more likely to be attacked by guns, while the proportion victimized using less lethal weapons, or no weapons, generally declined.

The fact that most people are alone when they are robbed, while most establishments in the commercial survey have more than one employee, may explain in part the very frequent use of weapons in robberies of the latter targets. However, single-employee establishments still are more commonly victimized by criminals bearing firearms than are groups of individuals. Hindelang (1976) suggests that this may be due to the expectation by robbers that store owners are more likely than strolling citizens to be armed. Business establishments also may have alarms or other signaling devices, and proprietors may be more likely than others to use what defensive surprises they have in store. Also, commercial offenders must fear interruption by customers or bystanders observing the scene, and store employees are in a position to summon the police rapidly once the offender has left the scene.

In addition to offering the ability to control victims and bystanders, lethal weapons make it possible for criminals to pick and choose their targets. Without a weapon, crowded sites, commercial establishments, and vigorous adults present difficult targets for robbers. With a weapon, offenders can attack successfully those "harder," betterprotected targets, which often may be more profitable. All four of the bank robberies uncovered by the commercial victimization survey were pulled off by gun-wielding robbers. Without a weapon, elderly passers-by, newsstand operators, coin machines, and more vulnerable targets may appear to offer safer, if less profitable, opportunities.

The National Crime Panel also examined some of the characteristics of the targets of personal robbery. The data suggest that weapons of any kind are more likely to be used against male, rather than female, victims, and that adults aged 17-39 are more likely than others to be accosted by a lethal weapon. Both of these tabulations support the notion that weapons facilitate taking on potentially more difficult and dangerous targets.

While most personal robberies recalled in the victimization surveys were described as "successful" crimes (something of value was taken), there was a slight (gamma = .15) relationship between the lethality of weapons employed in robbery and the extent to which victims were encouraged to part with their money. The main effect appears to be the weapon/no-weapon distinction. The effect of weapons is much stronger in the case of commercial offenses, which were markedly more successful as successively more lethal weapons were employed.

Finally, the survey gathered information on the most stark measure of the ability of robbers successfully to attack desirable targets—the amount they were able to steal. It is clear from those figures that robberies with guns involved by far the largest losses. Commercial robbers averaged on the whole a haul of \$540, while those employing guns did about \$100 better than that, and \$300 better than those using no weapons at all. Personal robbers took an average of \$177; those using a firearm upped their income by \$120.

All of this indicates that if a potential offender has a lethal weapon, he (almost all robbers are males) can do things that he cannot do with less potent weapons, and that he is more likely to be successful at it. Weapons, then, may be criminogenic in the sense that they lead to a prolongation of criminal careers into adulthood. Lethal weapons enable offenders to attack more lucrative targets, avoid getting into fights, reduce risks to themselves, and profit more predictably from their endeavors. All of these factors support an adult, professional work style, perhaps encouraging the maintenance of predatory criminal careers. Lethal weapons are "tools of the trade." Weapons appear to be criminotropic in that they affect both offender strategies and tactics. The need to have a particular weapon to control certain victims or crime scenes may preclude some from even attempting those robberies. On the other hand, having more firepower available enables miscreants to choose targets with more impunity, to select desirable victims, and to discount their conventional forms of resistance or retreat.

The analysis above clearly assumes that these linkages are causal, with the type of weapon employed playing a crucial role in the sequence of events implied by these data. This would suggest that the type, timing, and sequence of events which characterize robbery would be different if more lethal weapons were not employed. For example, if guns were not commonly employed in robbery, it might be that more victims would fight back, successfully flee the scene, or refuse to give up their money. In return, robbers would be forced to resort to direct physical assault to forestall those reactions. Without more lethal weapons, "harder" targets would be very difficult (risky and often impossible) to breach, and robbers would be forced to turn to more vulnerable victims. In turn, the average take from a robbery would fall.

In order to probe these contingencies, one can employ data on the relationship between weapon use and incident

characteristics to describe what the distribution of robbery in the United States *might* look like if selected reductions in the use of weapons were accomplished. For the purpose of projecting their various consequences it is not necessary to argue that such weapon-use reductions are probable, or even possible. Such reductions might take place, first, as a result of some gun control scheme which effectively reduced the number of firearms circulating in the offender population. Further, the frequency with which the most potentially deadly weapons—guns and knives—are employed might be reduced by the imposition of draconian legal measures akin to some of the mandatory gun-use charging and sentencing policies now being discussed. Third, such repressive measures might be extended to cover the employment of any weapon in a robbery.

Such an analysis suggests that physical assaults (as opposed to just threats) might rise from 55% to characterize as many as two-thirds of all robberies, if only strongarmed robberies took place. As a result, the proportion of persons injured during robberies might rise very slightlyfrom one-third to about 37%-if deadly weapons were banned. (On the other hand, the proportion of victims needing medical care would drop nine percentage points). Successively more extensive weapon controls would slowly drive offenders toward female victims and toward the elderly, as they sought more vulnerable, less risky targets. Perhaps because of this redirection of effort, the success rate for robbers would drop only slightly as lethal weapons were forced off the market. However (also because of this redirection), their average take would be reduced by \$20 to \$40 by various weapons options. In sum, the robberies which would occur in a gun-free society would be more violent, but would seriously injure fewer people and certainly kill far less. Women and the old would be attacked slightly more often, but on the whole robbery would be a less successful occupation.

The next question involves even more inferential leaps from the data: what would it do to the careers of robbers if

It is impossible to decide which of these hypotheses about the effects of weapon control would best describe the world, based upon surveys of victims. However, it is possible to employ the data to make some rough estimates of the implications of each for the robbery rate. That is, since the survey data tell us the average take for various kinds of robbery, we can estimate (a) how many more times gun control (we will stick to that policy option here) would lead robbers who wished to maintain their incomes to repeat their deeds, and (b) what the reduction in the number of crimes would be if gun robbers decided instead to pursue some other line of work.

These estimates are presented in Table 2. There, I report what the effects of an effective gun control policy upon the number of robberies in the United States would have been in 1973, the reference year for the survey data. Assuming

TABLE 2: Projected Outcomes of Gun Control on the National Frequency of Robbery

TYPE OF	ASSUMPTION			
	Rob More to Maintain Income	Now	Drop Out and Look Elsewhere	
Estimated Mul	tiplier ^a			
Personal	1.3	-	0.8	
Commercial	2.4		0.3	
S. Estimated	rotal			
Personal	1,456,130	1,120,100	896,000	
Commercial	633,840	264,100	79,230	
Total	2,009,970	1,384,200	975,310	

SOURCE: U.S. Department of Justice (1976).

b. The multiplier above times official estimates of the number of victimizations in the United States.

that gun robbers would try to maintain their income levels while employing less lethal weapons, one can calculate the average take for other types of weapon users, then compute the effects of adding enough robberies to the previous total to make up the difference between that and the take enjoyed "previously" by gun users. If one subscribes to this hypothesis about criminal careers, gun control would have multiplied the personal robbery rate in 1973 by a factor of 1.3, and the commercial rate by a factor of 2.4, yielding an estimated 2,089,970 robberies in the United States (rather than the 1,384, 200 that occurred without gun control). On the other hand, simply assuming that gun robbers would quit their previous line of work entirely if it became messier and less profitable, the multiplier effect of gun control drops below 1.0 (it becomes, in effect, negative). Following this argument, we would have expected only 975,310 robberies in the U.S. during 1973, if only we had effectively banned firearms.

a. Estimated by calculating the added number of robberies needed to maintain the average takes of "previous" gun robbers, or the offect of subtracting them from the total.

CONCLUSION

These figures are not to be taken seriously. Rather, what they indicate is that we need to know more about robbery and robbers before we could decide which serious estimates to choose. The data do support an argument based on a long line of police file studies and earlier analyses of victimization data that firearms play an important role in determining what happens to whom, and who profits from it. We have to base projections of the effects of weapons control policies on a realization that their consequences, therefore, will be many-faceted. Depending on what robbers choose to do, there will be perhaps more rather than less robbery as a result, and those may be more violent and involve more elderly and female victims. Most assuredly gun control would shift the burden of robbery from commercial establishments to individuals. Whether this shift in the relative distribution of robbery (which seems fairly certain) would be matched by increases or decreases in the frequency of those attacks requires a more sophisticated modeling of offender choice from a deterrence perspective. If they do not predict a decrease, the politics of gun control could rapidly become more complex.

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