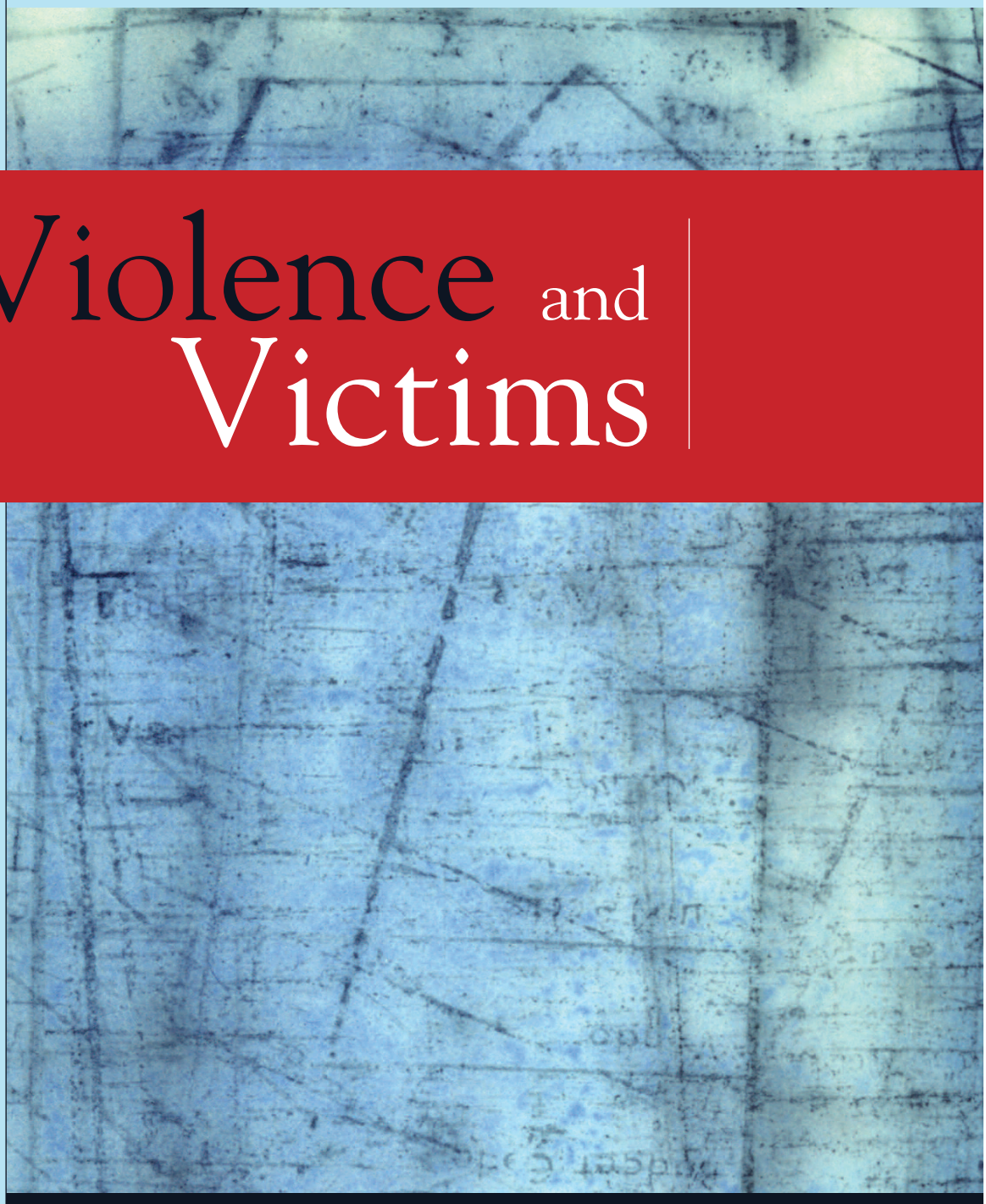

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Reflexive Retaliation for Violent Victimization: The Effect of Social Distance on Weapon Lethality

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During the course of being victimized, why do people sometimes fight back with their fists; in other cases, with a knife or blunt object; and at other times, with a firearm? One theory is that the weapons involved in self-defense, also known as reflexive retaliation, become less lethal as offenders and victims become more intimate and alike culturally. Using National Crime Victimization Survey data, we test hypotheses derived from this theory and primarily find support. This article concludes by discussing implications for future work.

Keywords: victimization; retaliation; NCVS; weapon lethality; pure sociology

During violent offenses, victims can respond in different ways (Black, 1998; Cooney, 2009; Phillips, 2003; Phillips & Cooney, 2005). They may cry out for help; try to escape; resist, capture, scare, warn, or appease the offender; or simply do nothing and cooperate. The most aggressive response is self-defense through physical force. This is known as *reflexive retaliation* (Jacobs & Wright, 2006).

Retaliators use weapons of varying lethality (Black, 2004a). Tools of violence such as guns, knives, clubs, and fists differ in their potential to cause bodily harm. All weapons have a measure of *lethality*, which is the amount of physical damage that results from a single application (Black, 2004a; Rennison, Jacques, & Berg, 2011).

This raises the question, "What theoretical factors explain weapon lethality across acts of reflexive retaliation?" For example, what influences whether an immediate aggressive response against victimization involves a gun, a knife or an object, or no weapon at all? Black (2004a) suggests one explanation: The more intimate and culturally similar are the offender and victim, the less lethal the weapon used in retaliation.

In this article, we test hypotheses derived from Black's (2004a) theory using National Crime Victimization Survey (NCVS) data. To conduct this inquiry, the remainder of this article is organized in the following manner. First, we situate our research in its conceptual and theoretical context. This is followed by a description of this investigation's method. Finally, we present and discuss our results, including their implications for future work.

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CONCEPTUAL AND THEORETICAL CONTEXT

Reflexive Retaliation and Weapon Lethality

Social control is a response to a deviant behavior (Black, 1998). There are several forms of social control. One is *retaliation*—a unilateral response to wrongdoing (Black, 1998). It may involve violence, fraud, theft, or vandalism (Jacques, 2010). This study focuses on *violent* retaliation, meaning the threat or use of physical force (Black, 2004a).

Reflexive retaliation refers to "face-to-face retribution exacted immediately" (Jacobs & Wright, 2006, p. 47). It is a "knee-jerk response to the perceived violation, something inextricably tied to the offending moment" (Jacobs & Wright, 2006, p. 47). The defining feature of reflexive retaliation is that it occurs as the initial act of wrongdoing unfolds rather than being delayed.

Instances of reflexive retaliation differ in several ways. Some are motivated by revenge, whereas others by self-protection. The accompanying emotion can be anger of fear. It might be deemed criminal or lawful self-defense. The seriousness of injury incurred by the punished person ranges from nothing to death. Cases also vary in the lethality of involved weapons.

Weapon lethality is an object's potential to inflict bodily harm (Black, 2004a). More specifically, the potential lethality of a weapon increases as it causes more (a) *injury*, such as bruising compared to death; (b) per *application*, such as a single gunshot or punch; or (c) to a particular *body part*, be it the head, heart, or anywhere else (Rennison et al., 2011).[1] As an example, typically, a gunshot is more damaging than a knife stab, which is more traumatizing than being hit with a blunt object.

The Perspective of Pure Sociology

This research tests a theory of weapon lethality nested in the perspective known as pure sociology. It is used to determine how social factors influence social behaviors such as retaliation and weapon use (Black, 1976, 1998; Cooney, 1998, 2009). Rather than focus on people or groups, this paradigm focuses on the *case*. It is important to analyze the characteristics of cases, such as particular conflicts, because this approach recognizes that individuals and groups do not always behave the same. A perfect example of this is even the most violent people are not violent in *all* of their conflicts. Thus, case-level variation requires attention (Black, 2004a).

This perspective uses the theoretical construct of *social geometry*, also known as *social structure*, to explain differences between cases in the form, style, and quantity of behavior that occurs (Black, 1976, 1998).[2] For any given action, social geometry is defined by the relative social status of and social distance between individuals. *Social status* increases as does a person's relative wealth (*vertical status*), integration in social life (*radial status*), capacity for collective action (*corporate status*), conventionality and sophistication (*symbolic status*), or respectability (*normative status*). On the other hand, *social distance* decreases as two or more people become more acquainted (*relational distance*) or similar in their expressions of what is good, true, and beautiful (*cultural distance*).

Pure sociologists work to find consistent patterns over time and space in how social geometry influences social behavior. This perspective has been used to explain various actions such as predation (Cooney, 2006; Cooney & Phillips, 2002), ideas (Black, 2000), welfare (Michalski, 2003), art (Black, 1998), and research (Jacques & Wright, 2008). Most work, however, focuses on social control—one form of which is retaliation, including interpersonal

violence (Black, 1983; Cooney, 1998; Phillips, 2003; Phillips & Cooney, 2005), lynching, rioting, terrorism (Senechal de la Roche, 1996), and genocide (Campbell, 2010).

Pure Sociology's Theory of Retaliation and Weapon Lethality

The present work focuses on Black's (1998, 2004a) theory of retaliation. He suggests that its probability and seriousness depends, in part, on the social distance between disputants: As people gain social distance, conflicts are (a) more often handled with retaliation (b) that is more severe. This theory predicts, for instance, that a victim is more likely to retaliate when offended by a stranger than a friend; and a victim's retaliation will be more severe when wronged by a person with a distinct rather than similar belief set.

Black (2004a) has refined his ideas by theorizing why retaliatory events involve more or less lethal weapons. He suggests that "[t]he lethality of weapons is a direct function of social distance" (p. 148). This predicts that retaliation among disputants who are relatively unfamiliar with each other and unalike culturally will involve weapons with more potential for injury.

Previous qualitative research provides empirical evidence that social distance influences weapon lethality (see Black, 2004a). However, there is a dearth of quantitative examinations of Black's (2004a) principle. To our knowledge, only one study, that of Rennison et al. (2011), explicitly examines the influence of social distance on weapon lethality (but also see Decker, 1993; Perkins, 2003). That analysis did not test Black's theory per se but, instead, examined a more general version of it. They expanded Black's (2004a) principle by connecting it to Cooney's (2006) theoretical principle of predation. Like Black's (1998) theory of retaliation, Cooney suggests that as persons grow further in social distance, then violent predation between them becomes more common and severe. Given their similarity, these ideas of Black (1998) and Cooney (2006) were combined to propose a generalized version of Black's (2004a) principle of weapon lethality: Weapon lethality in retaliatory *and* predatory events is a direct function of social distance. An analysis of data from the NCVS confirmed hypotheses derived from this principle (Rennison et al., 2011).

Whereas that research examined violence *by offenders* against victims, in this article, we focus on the lethality of weapons used *by victims* while reflexively retaliating against offenders. To do so, we use the NCVS to test Black's (2004a) theory. By focusing on victims' responses to offenses, which are undoubtedly social control and not predation, this study may be the first to unequivocally test this theory. Based on it, we hypothesize greater relational and cultural distance—respectively measured as strangers versus known persons and those of different versus same race—to be associated with greater weapon lethality.

METHOD

Data

We test our hypotheses with the 1992–2009 NCVS data gathered through in person and telephone surveying from a large, nationally representative household sample. During this period, the sample included approximately 80,000 persons in 40,000 households who were interviewed twice annually for 3.5 years. During this period, NCVS response rates ranged from 91% to 96% for households and from 84% to 94% for individuals.[3] The NCVS employs a series of screen questions, which ascertain whether a respondent was a victim of an attempted or completed crime during the preceding 6 months. Additional survey

questions gather detailed incident characteristics including information about the victim, the offender, and the incident.

NCVS data offer several advantages for this investigation. First, it offers a large, nationally representative sample of noninstitutionalized persons aged 12 years or older. Second, the NCVS collects detailed incident-level information including the race of the victim and the offender, the relationship between the victim and the offender, and whether and how a victim retaliated during the victimization. Third, NCVS data contain information on victimizations regardless of whether the police were notified.

Limitations of the NCVS are important to note. First, the data fail to cover persons younger than age 12 years. Second, the data do not contain victimizations against institutionalized persons (e.g., prisoners) or the homeless. Third, a limited number of crimes are covered (i.e., rape, sexual assault, robbery, aggravated and simple assault). Last, NCVS data do not offer measures of all aspects of social geometry outlined by pure sociology.[4]

Sample

This study analyzes nonfatal violent victimizations.[5] The sample is restricted to cases in which the victim immediately retaliated using a firearm, a knife/object, or the body (e.g., punch with a fist). In addition, the sample includes only violence between White and Black victims and offenders. Although the NCVS offers five categories of victim's race (White, Black, Asian, American Indian, and mixed race), it provides only three categories for the offender (White, Black, and other). As to test the hypotheses, we need to identify when the victim's and the offender's race is similar or different, persons identified as not White or not Black are excluded from the analyses. These criteria result in 1,827 violent victimizations from 1992 to 2009.

Measures

This research models the degree to which the lethality of weapons used by reflexively retaliating victims behaves as a function of their social distance from their offenders. The dependent variable is *weapon lethality* employed by the victim during the retaliatory act. Weapon lethality is the amount of potential injury associated with the use of a specific object in violent altercations. It is conceptualized as three points on a continuum: 0 (*attempted or completed body attack*), 1 (*attempted or completed attack with an object or a knife*), 2 (*attempted or completed attack with a firearm*); incidents with multiple levels of weapon lethality are coded as the highest level. Although weapon lethality is conceptualized in this fashion, analyses are conducted using a series of multinomial logistic regressions (see following text for more information).

Depending on the respondents routing through the survey because of skip patterns, they are asked either "Did you do anything with the idea of protecting yourself or your property *while the incident was going on*?" or "Was there anything you did or tried to do about the incident while it was going on?" If the respondents stated "Yes" to either question, they were further queried, "What did you do?" Their responses fit into eight categories: "used physical force toward offender," "resisted or captured offender," "scared or warned off offender," "persuaded or appeased offender," "escaped or got away," "got help or gave alarm," "reacted to pain or emotion," and "other."

Within the "used physical force" category, there are three responses used to describe weapon lethality.[6] First, "body" refers to the lowest degree of weapon lethality and indicates an incident in which the victim used only one's body (e.g., fist or feet) to retaliate.

Second, "knife/object" refers to the retaliatory use of an object or a knife. These incidents involve a higher degree of weapon lethality than do body incidents. Finally, "firearm" describes incidents in which the victim's retaliatory response involved a firearm; they have the highest level of weapon lethality.

The independent variable is social distance. Social distance is created by summing two components: relational distance and cultural distance. Relational distance identifies the intimacy of the victim and the offender: 0 (*known victim and offender*) and 1 (*strangers*). Cultural distance measures the similarity between the victim's and the offender's race. Same race victims and offenders are considered closer in cultural distance than those of different races. Cultural distance is measured using 0 (*intraracial*) and 1 (*interracial*). Because social distance is the summation of cultural and relational distance, it is measured using three categories: 0 (*same race and known*), 1 (*either known participants of different races or strangers of the same race*), and 2 (*different race and strangers*).[7]

Prior research suggests that there are other factors associated with the dependent variable; and therefore, we should include them in the analyses. The regression models control for these correlates, including measures of the victim's social status, age and gender of victims and offenders (see Gottfredson & Hirschi, 1990; Heimer & DeCoster, 1999; Rennison & Rand, 2003), and the location of the violent incident (Wilson, 1996).[8] Following Black's (1995) advice, the type of victimization being retaliated against is controlled.

Analytical Strategy

The following analyses use multinomial logistic regression. We first considered using a proportional odds logistic regression model (Hosmer & Lemeshow, 2000; Long, 1997), given the conceptualization of weapon lethality as an ordered continuum from low to high. We rejected this approach because it is not possible to test for the assumption of parallel regression using postestimation techniques when using survey-weighted procedures required by the NCVS data. We did conduct postestimation tests using *non–survey-weighted* ordered logistic regression, and the findings indicated that the assumption of parallel regression was violated. In other words, slopes for separately estimated models based on each category of the dependent variable are not parallel. When the assumption of parallel regression is violated, the selection of an alternative model without the restriction of parallel regressions is advised (Long, 1997; Long & Freese, 2006).

The NCVS is collected using a stratified, multistage cluster sampling. Failure to account for this complex sample design may lead to biased standard errors and inflated *t*-statistics and erroneous conclusions. To account for this sample design, regression models were estimated using Stata's survey weighting regression procedures (Hosmer & Lemeshow, 2000). These procedures use V2117 (pseudostratum), V2118 (secucode), and V3080 (person weight) to account for nonresponse and differential probability of selection. These three important variables were added to the NCVS data file beginning in the third quarter of 1993. Thus, all models include data from 1993 to the end of 2009.

RESULTS

Table 1 describes the percentage distributions, means, and standard deviations (when appropriate) for the variables used in the analyses. While engaged in reflexive retaliation, most victims used only body force against offenders (83%).[9] Eleven percent of the victims

TABLE 1. Descriptive Statistics, Unweighted n = 1,827, National Crime Victimization Survey (NCVS) 1992–2009

Dependent Variable	%
Weapon lethality	
Body	82.5
Object or knife	11.0
Firearm	6.5
Independent Variables	**%**
Social distance	
Same race, known parties	50.1
Same race strangers or different race known parties	39.0
Different race strangers	10.9
Relational distance	
Known	54.8
Stranger	45.2
Cultural distance	
Similar race	84.4
Different race	15.6

Social Status Variables (cont.)	%	*M*	*SD*
Vertical status			
Victim's annual household income		8.3	4.2
Symbolic status			
Victim's educational attainment		11.4	3.3
Corporate status			
Number of offenders			
One offender	84.4		
Multiple offenders	15.6		
Presence of bystanders			
No bystanders	24.5		
Bystanders present	75.5		
Control Variables	**%**	***M***	***SD***
Victim's age		24.9	11.4
Victim's gender			
Male	67.0		
Female	33.0		

Control Variables (cont.)	%
30+ years old	24.5
Mixed age group	7.8
Offender's gender	
Male	82.1
Female	15.2
Males and females	2.6
Don't know	0.04
Location of incident	
In/near victim's home	24.9
In/near friend's home	12.4
Other area	62.7
Type of violence	
Simple assault	65.4
Rape/sexual assault	3.4
Robbery	8.2
Aggravated assault	23.0

Social Status Variables	%	Victim's residence		Weapon presence	
Radial status		Owned	48.3	No weapon	74.4
Victim's marital status		Rented	51.7	Weapon	25.6
Never married	66.6	Victim's MSA			
Divorced, widowed, or separated	14.5	Urban	31.8		
Married	18.9	Suburban	47.6		
Victims' employment status		Rural	20.6		
Not employed	33.1	Offender's age			
Employed	66.9	18 years old or less	29.4		
		19–29 years old	38.3		

Note. In the NCVS, income is measured using 14 categories of unequal size: (a) Less than $5,000; (b) $5,000–$7,499; (c) $7,500–$9,999; (d) $10,000–$12,499; (e) $12,500–$14,999; (f) $15,000–$17,499; (g) $17,500–$19,999; (h) $20,000–$24,999; (i) $25,000–$29,999; (j) $30,000–$34,999; (k) $35,000–$39,999; (l) $40,000–$49,999; (m) $50,000–$74,999; (n) $75,000 and over. MSA = metropolitan statistical area.

used an object or a knife. Seven percent retaliated with the aid of a firearm. Most retaliation involved a victim and an offender who were known to one another (55%), and most involved a victim and an offender of the same race (84%). Taken together, findings show that about half (53%) of retaliatory cases involved known combatants of the same race. Few incidents involved a rape/sexual assault (3%) or a robbery (8%), multiple offenders (16%), or occurred in/near the victim's home (12%).

Initial Examination of Social Distance and Weapon Lethality

Figure 1 presents the percentage of each weapon lethality category—bodily attack, knife/object, firearm—used within each category of social distance.

As predicted, this figure indicates that the victims closest in social distance to their offender (i.e., same race, known combatants) are most likely to use bodily attack (53%), less likely to retaliate with a knife/object (41%), and even less likely to retaliate with a gun (32%). Moving to a higher level of social distance between a victim and an offender—known assailant of different race or stranger assailant of same race—findings are not as clear. With greater social distance between the victim and the offender, 39% of victims resort to bodily attack, 42% turn to a knife/object, and 37% resort to a gun. Finally, the category representing the greatest social distance between the victim and the offender (i.e., strangers of different races) demonstrates a clear pattern in line with our hypothesis. In this group, 9% of victims use bodily attack versus 17% who use knife/object and 31% who resort to gun violence to retaliate.

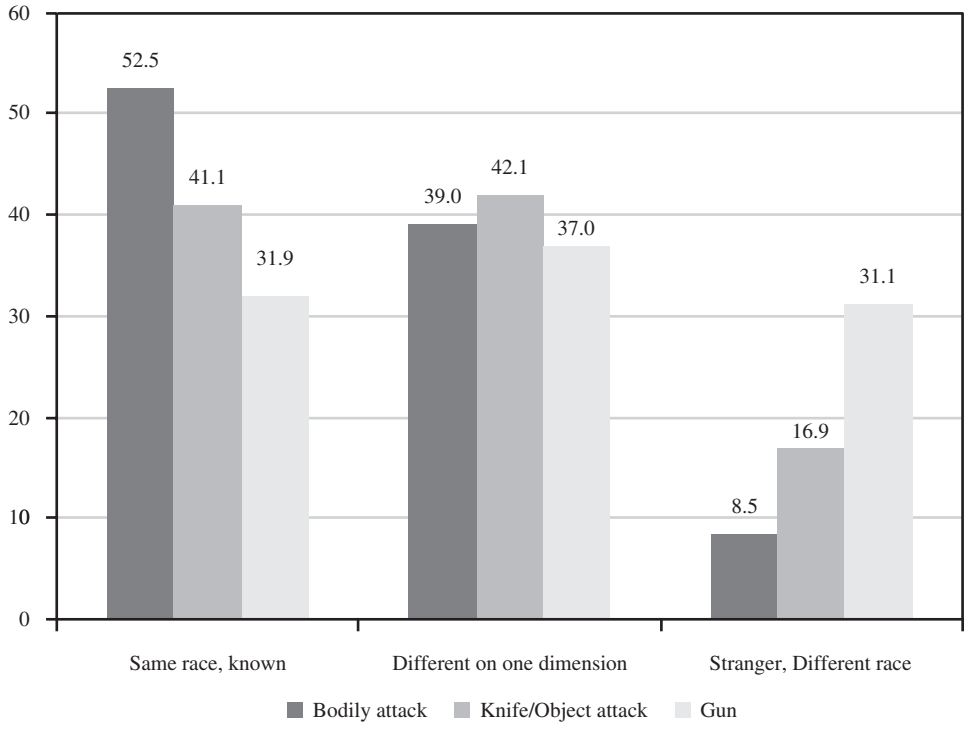

Figure 1. Percentage weapon lethality by social distance.

Although these findings are of interest, they fail to account for other correlates of weapon lethality. To determine the relationship between social distance and weapon lethality, the next section takes a multivariate approach.

Multivariate Tests of Social Distance and Weapon Lethality

Table 2 offers findings from an examination of social distance's effect on weapon lethality. In all models, it is hypothesized that greater social distance is related to greater weapon lethality. Panel A in Table 2 presents findings from a multinomial logistic regression focusing on the lethality of a firearm contrasted with a bodily attack (contrast category). Results indicate support for the social distance—weapon lethality hypothesis. Specifically, the greater the social distance between the victim and the offender, the more likely the victim will retaliate using a gun versus a bodily attack. Moving from incidents involving same race known combatants to same race strangers or different race known parties increases the odds of a gun attack more than two times (adjusted odds ratio [AOR] = 2.18). And moving from an incident involving same race known combatants to different race strangers increases the odds of a gun attack more than three times (AOR = 3.15).

Panel B presents findings examining the same hypothesis but compares a knife/object attack to bodily attack (contrast category). It is hypothesized that as social distance increases, a victim is more likely to retaliate using a knife/object versus a bodily attack. Results indicate partial support for the hypothesis. Social distance is not a significant predictor when comparing incidents involving same race known combatants and same race strangers or different race known parties ($p = 0.78$). In contrast, social distance is positively and significantly related to weapon lethality comparing an incident involving same race known combatants to different race strangers. In this scenario, the odds of a knife/object attack versus a bodily attack increases almost four times (AOR = 3.82).

Panel C presents findings comparing retaliation with a firearm to with a knife/object (base category). In this situation, findings offer no support for the hypothesis that greater social distance leads to greater weapon lethality ($p = .10$ and .70).

Social Distance Disaggregated

An alternative approach to testing our hypothesis is to disaggregate social distance into its two components: cultural distance and relational distance. Presented in Table 2 as a single measure, their independent contributions are obscured. By disaggregating social distance, we are able to examine the significance of each component in influencing weapon lethality. Thus, the following three models take the same form as those shown in the previous section, but relational distance and cultural distance are used separately as the independent variables.

Panel A of Table 3 presents findings from a multinomial logistic regression that examines the independent influence of relational and cultural distance on weapon lethality. Results indicate partial support for the hypothesis as relational distance is measured to be a significant predictor of weapon lethality. Specifically, the greater the relational distance between the victim and the offender (i.e., stranger compared to known assailant), the more likely is the victim to retaliate using a firearm versus a bodily attack ($b = 0.84$, $p < .001$, AOR = 2.32). The odds ratio indicates that the odds of a firearm retaliation versus a bodily attack increases more than two times (AOR = 2.32) when the offender is a stranger versus a known individual. In contrast, cultural distance is not a significant predictor of weapon lethality ($b = 0.33$, $p = .18$, AOR = 1.40). It appears that in this case, the driving force is relational and not cultural distance.

TABLE 2. Multinomial Logistic Regression Models Predicting Weapon Lethality During Retaliation for Total Violence, n = 1,472, National Crime Victimization Survey (NCVS) 1993–2009

	Panel A: Firearm Contrast Is Bodily Attack					Panel B: Knife/Object Contrast Is Bodily Attack					Panel C: Firearm Contrast Is Knife/Object				
Variables	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR
Independent variable: Social distance															
Same race, known parties (reference)															
Same race strangers or different race, known parties	0.78	0.22	*	.00	2.18	0.11	0.38		.78	1.11	−0.67	0.41		.10	0.51
Different race, strangers	1.15	0.32	*	.00	3.15	1.34	0.43	*	.00	3.82	0.19	0.50		.70	1.21
Social status control variables															
Vertical status: Income	−0.03	0.03		.34	0.97	−0.03	0.04		.45	0.97	0.00	0.05		.95	1.00
Radial status															
Marital status															
Never married (reference)															
Widowed, divorced, or separated	0.02	0.31		.96	1.02	1.00	0.48	*	.04	2.71	0.98	0.55	**	.08	2.66

Married	0.52	0.26	**	.05	1.68	0.39	0.41		.35	1.48	−0.13	0.48		.79	0.88
Employed	−0.11	0.25		.66	0.90	1.01	0.46	*	.03	2.75	1.12	0.50	*	.03	3.06
Symbolic status															
Educational attainment	0.00	0.05		.96	1.00	0.00	0.07		.99	1.00	0.00	0.08		.99	1.00
Corporate status															
Number of offenders	−0.31	0.48		.51	0.73	0.27	0.49		.58	1.31	0.58	0.63		.36	1.78
Bystanders	−0.40	0.21	**	.06	0.67	−0.62	0.30	*	.04	0.54	−0.22	0.32		.49	0.80
Criminological control variables															
Victim characteristics															
Female	0.26	0.26		.32	1.29	0.27	0.41		.52	1.31	0.01	0.44		.98	1.01
Age	0.02	0.01		.10	1.02	0.02	0.02		.19	1.02	0.01	0.02		.70	1.01
Rented home	−0.16	0.24		.51	0.85	0.26	0.32		.42	1.30	0.42	0.36		.25	1.52
MSA															
Urban (reference)															
Suburban	−0.19	0.22		.40	0.83	0.46	0.32		.15	1.58	0.64	0.37	**	.08	1.91
Rural	−0.63	0.32	**	.05	0.53	−0.77	0.51		.13	0.46	−0.14	0.54		.80	0.87

(Continued)

TABLE 2. Multinomial Logistic Regression Models Predicting Weapon Lethality During Retaliation for Total Violence, $n = 1{,}472$, National Crime Victimization Survey (NCVS) 1993–2009 (Continued)

	Panel A: Firearm Contrast Is Bodily Attack					Panel B: Knife/Object Contrast Is Bodily Attack					Panel C: Firearm Contrast Is Knife/Object				
Variables	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR
Offender characteristics															
Age															
18 years old or less (reference)															
19–29 years old	0.16	0.34		.64	1.17	0.84	0.63		.19	2.31	0.68	0.69		.33	1.98
30+ years old	0.41	0.35		.25	1.50	1.22	0.66	**	.07	3.39	0.81	0.72		.26	2.25
Mixed age group	0.37	0.62		.55	1.45	1.77	0.74	*	.02	5.86	1.39	0.94		.14	4.03
Don't know	0.19	0.85		.82	1.21	−0.05	1.02		.96	0.95	−0.24	1.22		.84	0.78
Gender															
Male (reference)															
Female	−0.02	0.36		.95	0.98	−1.82	1.10		.10	0.16	−1.79	1.11		.11	0.17
Group of males and females	1.15	0.60	**	.05	3.16	0.06	0.71		.93	1.06	−1.09	0.82		.19	0.34
Don't know	−32.36	0.93	*	.00	0.00	−31.28	1.18	*	.00	0.00	1.15	0.89		.20	3.16

Incident characteristics															
Location of violence															
In/near victim's home (reference)															
In/near friend/ acquaintance's	−0.48	0.34		.16	0.62	−0.22	0.48		.65	0.81	0.27	0.55		.63	1.31
Other area	−0.63	0.21	*	.00	0.53	−0.54	0.42		.19	0.58	0.08	0.44		.85	1.09
Armed offender	1.00	0.51		.05	2.72	2.10	0.62	*	.00	8.13	1.10	0.78		.16	2.99
Type of violence															
Simple assault (reference)															
Rape/sexual assault	−0.40	0.60		.51	0.67	−32.36	0.64	*	.00	0.00	−32.96	0.79	*	.00	0.00
Robbery	−0.36	0.47		.44	0.70	−0.41	0.67		.55	0.67	−0.05	0.76		.95	0.95
Aggravated assault	−0.17	0.55		.76	0.85	0.17	0.64		.79	1.18	0.33	0.81		.68	1.40
Constant	−2.22	0.73	*	.00		−6.45	1.43	*	.00		−4.23	1.53	*	.01	

Note. Data are from the NCVS, from Quarter 3, 1993 to Quarter 4, 2009. MSA = metropolitan statistical area.
*$p < .05$, two-tailed test. **$p < .10$, two-tailed test.

TABLE 3. Multinomial Logistic Regression Models Predicting Weapon Lethality During Retaliation for Total Violence, Two Social Distance Measures, National Crime Victimization Survey (NCVS) 1993–2009

	Panel A: Firearm Contrast Is BodilyAttack					Panel B: Knife/Object Contrast Is Bodily Attack					Panel C: Firearm Contrast Is Knife/Object				
Variables	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR
Independent variables: Social distance															
Relational distance	0.84	0.24	*	.00	2.32	0.36	0.37		.34	1.43	−0.48	0.41		.23	0.62
Cultural distance	0.33	0.25		.18	1.40	0.97	0.28	*	.00	2.63	0.63	0.34	**	.07	1.88
Social status control variables															
Vertical status: Income	−0.03	0.03		.33	0.97	−0.04	0.04		.39	0.96	−0.01	0.05		.90	0.99
Radial status															
Marital status															
Never married (reference)															
Widowed, divorced, or separated	0.02	0.31		.95	1.02	0.96	0.48	**	.05	2.61	0.94	0.56		.09	2.56
Married	0.51	0.26	**	.05	1.67	0.40	0.41		.33	1.49	−0.12	0.47		.81	0.89
Employed	−0.11	0.25		.66	0.90	1.02	0.46	*	.03	2.76	1.13	0.50	*	.02	3.09
Symbolic status															
Educational attainment	0.00	0.05		.93	1.00	0.00	0.07		1.00	1.00	0.00	0.08		.96	1.00
Corporate status															
Number of offenders	−0.32	0.49		.51	0.73	0.27	0.47		.58	1.30	0.59	0.62		.35	1.80
Bystanders	−0.40	0.21	**	.06	0.67	−0.63	0.30	*	.04	0.53	−0.23	0.32		.47	0.79

Criminological control variables															
Victim characteristics															
Female	0.27	0.27		.32	1.31	0.29	0.42		.49	1.33	0.02	0.45		.97	1.02
Age	0.02	0.01	**	.09	1.02	0.02	0.02		.18	1.02	0.01	0.02		.68	1.01
Rented home	−0.16	0.24		.49	0.85	0.24	0.32		.47	1.27	0.40	0.36		.27	1.49
MSA															
Urban (reference)															
Suburban	−0.20	0.22		.36	0.82	0.50	0.32		.13	1.64	0.70	0.37	**	.06	2.01
Rural	−0.66	0.32	*	.04	0.52	−0.71	0.51		.17	0.49	−0.05	0.54		.93	0.95
Offender characteristics															
Age															
18 years old or less (reference)															
19–29 years old	0.13	0.33		.69	1.14	0.88	0.63		.17	2.40	0.74	0.69		.28	2.10
30+ years old	0.38	0.35		.28	1.47	1.24	0.66	**	.06	3.46	0.86	0.72		.24	2.36
Mixed age group	0.34	0.61		.58	1.40	1.75	0.73	*	.02	5.77	1.41	0.91		.12	4.11
Don't know	0.15	0.85		.86	1.16	0.04	1.01		.97	1.04	−0.11	1.21		.93	0.90
Gender															
Male (reference)															
Female	−0.01	0.36		.98	0.99	−1.92	1.13	**	.09	0.15	−1.91	1.14		.10	0.15
Group of males and females	1.16	0.60	**	.05	3.18	0.16	0.70		.82	1.18	−0.99	0.81		.22	0.37

(Continued)

TABLE 3. Multinomial Logistic Regression Models Predicting Weapon Lethality During Retaliation for Total Violence, Two Social Distance Measures, National Crime Victimization Survey (NCVS) 1993–2009 (Continued)

	Panel A: Firearm Contrast Is BodilyAttack					Panel B: Knife/Object Contrast Is Bodily Attack					Panel C: Firearm Contrast Is Knife/Object				
Variables	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR	*b*	*SE*		*p* value	AOR
Location of violence															
In/near victim's home (reference)															
In/near friend/ acquaintance's	−0.49	0.34		.15	0.61	−0.23	0.49		.64	0.80	0.26	0.56		.64	1.30
Other area	−0.65	0.21	*	.00	0.52	−0.57	0.42		.18	0.57	0.08	0.45		.86	1.08
Armed offender	0.99	0.51	**	.05	2.70	2.05	0.62	*	.00	7.78	1.06	0.77		.17	2.88
Type of violence															
Simple assault (reference)															
Rape/sexual assault	−0.40	0.60		.51	0.67	−32.34	0.65	*	.00	0.00	−29.95	0.79	*	.00	0.00
Robbery	−0.37	0.47		.44	0.69	−0.31	0.66		.64	0.74	0.06	0.75		.94	1.06
Aggravated assault	−0.15	0.55		.79	0.86	0.20	0.63		.76	1.22	0.34	0.81		.67	1.41
Constant	−2.16	0.73	*	.00		−6.59	1.43	*	.00		−4.44	1.53	*	.00	

Note. Data are from the NCVS, from Quarter 3, 1993 to Quarter 4, 2009. MSA = metropolitan statistical area.
*$p < .05$, two-tailed test. **$p < .10$, two-tailed test.

Panel B presents findings from a model that examines the role of relational and cultural distance on weapon lethality where weapon lethality compares firearm versus knife/object retaliation (base category). Findings offer mixed support for the general hypotheses because cultural distance is positively and somewhat related to weapon lethality, but relational distance is not. Greater relational distance between the victim and the offender predicts greater weapon lethality ($b = 0.63$, $p = .07$, AOR = 1.88). In contrast, greater cultural distance is unrelated to greater weapon lethality ($p = 0.23$).

SUMMARY AND CONCLUSION

The purpose of this article has been to explore the question: In cases of reflexive retaliation, do victims use more lethal weapons against offenders when they are less familiar with each other or less alike culturally? Using NCVS data and multinomial logistic regressions, results offer support for our hypothesis: Weapon lethality is a function of social distance during immediately enacted retaliatory violence (Black, 2004a).

In general, findings indicate that the relevance of each component of social distance is contingent on the comparison of levels of weapon lethality. In the model examining gun versus bodily attack, relational distance was significant, but cultural distance was not. In contrast, when considering the use of knife/object to bodily attack retaliation, cultural distance was significant, but relational distance was not. Finally, in the model that investigated firearm versus knife/object, neither measure was significant. These findings suggest that although social distance as a whole is important, the contribution of cultural and relational distance varies.

Like all research, the present work is not without limitations. We now discuss them and their implications for future research. For one, this study did not control for some alternative influences on weapon lethality including rationality and opportunity.[10] An ideal test would simultaneously model these factors. If that is done in the future research, the effect of social distance on weapon lethality may become more pronounced or less substantive.

On that note, Black (2004a) restricts his explanation of weapon lethality to the effect of social distance, but the social status of offenders and victims may also affect this behavior. Thus, although this study tested the whole of his explanation, it is not yet fully developed. Drawing on other work of Black (1983), we reason weapon lethality in retaliatory events will be greater as the status of the offender and victim decrease. Future research should develop and test such theoretical possibilities.

Another limitation of this research stems from the sample. The retaliatory events we analyze represent a subgroup of all kinds, namely, the reflexive sort. These are instances in which a victim is victimized and retaliates during the initial offense. Its immediacy suggests victims may have had a constrained set of weapons at their disposal—a facet of opportunity (see Cook, 1983; Phillips & Maume, 2007). If, however, the retaliation occurs after the victimization is completed, then the victim may have a greater variety of weapons with which to get even.

Relatedly, Jacobs and Wright (2006) propose that there are four other types of vengeance that do not occur in the immediate: calculated retaliation, in which vengeance is intentionally delayed; deferred retaliation, which has an undesired delay; sneaky retaliation, meaning without face-to-face contact; and imperfect retaliation, wherein vengeance is enacted against someone other than the offender. Black's (2004a) principle of weapon

lethality suggests all kinds of violent retaliation should involve more lethal weapons as victims and offenders grow further apart in social distance. The one caveat is that like with reflexive retaliation, deferred retaliation may come at unplanned moments and, in such cases, vigilantes may have a limited set of weapons with which to strike even. A fruitful avenue of research is to explore how these restrictions and opportunities mediate the relationship between social factors and weapon use.

A fourth limitation of this research is that the measures of social distance, victimization, and retaliation have a small degree of specificity. Relational distance is measured as a discrete rather than continuous variable, but people vary in how long they have known each other, how many activities they have done together, and how many common acquaintances they share (Black, 1976). Similarly, the measure of cultural distance is limited and indirect. Culture—meaning what is good, true, and beautiful—correlates with race/ethnicity, but there is variability within these groups (Anderson, 1999). The NCVS does not provide vast insights into the nuances of conflicts or social control, although the analyses do control for whether the retaliation was responding to assault versus rape or robbery. For these reasons, future research should examine the degree to which varying levels of intimacy between disputants affect weapon lethality; employ and analyze direct measures of culture, such as how people dress or talk and what they think is good/bad, true/false, or beautiful/ugly; and obtain and analyze details about the nature and severity of conflicts and social control.

Finally, a limitation of this research is that it does not include all kinds of violence or conflict. Clearly absent is homicide because it is not collected in the NCVS. Still, although homicide is not a part of these analyses, it is unlikely that its exclusion would influence the present findings because murder makes up a tiny percentage of overall violence. For example, in 2009, according to the Federal Bureau of Investigation (FBI, 2010), there were 13,636 homicides. During the same year, there were more than four million violent victimizations and more than a third of those were defined as serious (Truman & Rand, 2010).[11] In 2009, then, homicide made up less than 1% of total and serious violence. Therefore, including homicide in our analyses would not alter the findings substantively. Nevertheless, it may be that testing this theory with only homicide data would result in different findings because of its distinct characteristics (e.g., high percentage involving weapons relative to nonfatal violence). Future research should delve into this possibility.

With that said, the power of purely sociological explanations of violence is intended to go far beyond interpersonal disputes. This perspective helps to make sense of aggression of various sorts across time and place including terrorism, torture, and war (see, e.g., Black, 2004b; Campbell, 2010; Senechal de la Roche, 1996). Does social geometry affect weapon lethality in these other kinds of violence? For example, do terrorists use more destructive weapons abroad than at home—such as the difference between a car bomb and an exploding plane? Do militaries attack with more powerful bombs—such as atomic ones—because they share less cultural heritage with the enemy? These are intriguing questions deserving investigation.

Modern-day society runs wild with variability in the relational and cultural distance between persons and the lethality of weapons available to them. Knives, for instance, are in everyone's kitchen drawer, and firearms are available to almost anyone in the United States. Moreover, a world with high mobility, copious modes of communication, and dense populations constantly alters the landscape of social distance. Thus, there has never been a more important time to answer the question: When, why, how, and to what degree does social distance between people affect the lethality of the weapons they use against each other?

NOTES

1. There are conceptual similarities between "weapon lethality" and "weapon choice." The key distinction is that the latter term has a psychological element, whereas the former is focused on social behavior. To the degree that weapon use is driven by unconscious or nonpsychological processes, the term *weapon choice* restricts the possible scope of explanations. Thus, the literature on weapon choice is relevant to explaining weapon lethality, although the opposite is not necessarily true. Therefore, the terms "weapon lethality" or "weapon use" might be preferred, although the latter does less well at emphasizing the idea that weapons vary in their potential to injure.

2. We prefer the term *social geometry* because it helps distinguish this paradigm's conception of social structure from others (see, e.g., Wadsworth & Kubrin, 2003).

3. Detailed information on the methodology of the NCVS is available in Rennison and Rand (2007).

4. The NCVS cannot be used to fully test the influence of *social status* on violence because it does not systematically gather information on the *offenders'* income, employment, marital status, or formal education. Although this information is gathered for the victim, the lack of information for offenders means that one cannot examine the *difference* in status between an offender and a victim.

5. These include attempted and completed rape, sexual assault, robbery, aggravated assault, and simple assault. Standard NCVS definitions are used (see Bureau of Justice Statistics [BJS], 2005).

6. Note that the "resisted or captured offender" category includes responses that are less aggressive, namely "struggled, ducked, blocked blows, held onto property."

7. In some analyses, *social distance* is used as the sole independent variable. In other analyses, we use *relational distance* and *cultural distance* as the independent variables.

8. Space limitations prohibit detailed descriptions of control variables used in the analyses. These details are available from the authors upon request.

9. In the "Results" section, the analysis is confined to cases of reflexive retaliation. To avoid redundancy and save space, heretofore, we only use the word *retaliation* to describe these cases. Note that the findings do not apply to retaliation as a whole, which also includes deferred retaliation.

10. For details on how these perspectives would explain weapon lethality, see Rennison, Jacques, and Berg (2011).

11. Serious violence includes rape, sexual assault, robbery, and aggravated assault. Total violence includes serious violence plus simple assault.

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