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RESEARCH REPORTS

Homicide and Kinship

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According to evolutionary theory, commonality of interest tends to follow lines of consanguineal relationship. This is so because one's "interest" is defined as the maximization of "inclusive fitness" (Hamilton 1964:6), a quantity which refers to a focal individual's success in replicating his or her genes, through both personal reproduction and the promotion of reproduction by genetic relatives. Evolution by natural selection produces motivational structures that are effectively "nepotistic" (in the sense of Alexander 1979:45-46). In a socially complex species, we should therefore expect to find solidarity among close kin on the one hand, and increasing conflict with decreasing relatedness on the other (see, e.g., Essock-Vitale and McGuire 1980). This view of self-interest as fundamentally nepotistic constitutes a general theory of commonality and conflict of interest. As such, it should cast some light on that most drastic of conflict resolution techniques, homicide.

Criminologists have found that victims and offenders are usually closely acquainted. Wolfgang (1958:206), for example, stressed the high frequency of "primary contacts," which he defined as "close friend, family member, paramour, and homosexual partner." "Relatives" are sometimes differentiated from other close acquaintances (e.g., Pokorny 1965:483), and "spouses" are sometimes differentiated from "other relatives" (e.g., Boudouris 1971:670; Criminal Justice Commission of Baltimore 1967). However, few criminologists have explicitly distinguished consanguineal relationship from marital and other fictive kinship, a distinction which cultural anthropologists and evolutionary biologists alike might expect to be crucial. In this paper, we will be concerned with the risk of homicidal conflict among genealogical rather than affinal and nominal kin, with

comparisons between victim-offender relationships and co-offender relationships, and with the associations among particular motives and circumstances and particular kin relationships.

Victim-Offender Relationships

The homicide bureau of the Detroit police department investigated 690 nonaccidental homicides committed in 1972. By October 1980, 512 of these cases were closed. In 508 closed cases, the relationship between victim and offender was known. These included 138 strangers (27.2%), 243 unrelated acquaintances (47.8%), and 127 "relatives" (25.0%).¹

Of the 127 victims "related" to their killers, only 32 (25.2% of "relatives," hence 6.3% of the 508 homicides) were consanguineal relatives, while 80 were spouses, 10 were in-laws and 5 step-relations. Of these 32 real kin victims, 8 were offspring of their killers, 11 were parents, 9 were brothers and 1 a sister; an 18-year-old boy killed his 14-year-old female cousin, a 65-year-old man killed his 52-year-old nephew, and a 12-year-old boy killed his infant nephew. Circumstances in which blood relatives were killed are discussed below.

Many commentators have suggested that a substantial proportion of homicidal conflicts involve relatives and close friends as an almost inescapable consequence of their high frequency and intensity of social interactions. Goode (1969:941), for example, has written, "Why do intimates commit violence against one another? Perhaps the most powerful if crude answer is that they are *there*. . . . As [intimates] are a main source of our pleasure, they are equally a main source of frustration and hurt." No doubt this is true, yet some categories of intimates are evidently at higher risk than others. The 6.3% of Detroit homicides that involved blood kin seems a remarkably *low* proportion in view of the likely frequency and intensity of social interactions, but how are we to measure interaction and estimate relative risk? We have no way to quantify, for a potential homicide perpetrator, the availability of related compared to unrelated victims in the community at large. However, a crude first approach to the question

of differential risk can be achieved by confining attention to the members of a household.

For the analysis in Table I, we considered only those 98 homicides for which victim and offender were residents of the same household, and the offender was an "adult" (14 years of age or older). Census information for the city of Detroit for 1970 (U.S. Bureau of the Census 1971:82-112, Tables 24-26) was used to estimate the household composition of an average potential homicide offender, and hence the pool of potential cohabitant victims. The age of 14 was dictated by available census information, but it is an appropriate cutoff point on other grounds: less than 1% of all homicide offenders were under 14, whereas over 12% were older teenagers.

As Table I makes clear, consanguineal kin were relatively rarely killed in comparison to spouses and other nonrelatives (chi-square, 1 df = 161, $p < .0001$). This difference in risk is in fact even greater than the figures in Table I indicate: since census information did not allow us to distinguish step and natural relations, all step-relationships had to be included in the blood-kin categories for this analysis. The eight "children" in Table I include two five year olds killed by stepfathers, as well as two infants whose beating deaths were charged solely against their mothers even though a stepfather was present. The nine "parent" victims include one stepfather, and the five "other relatives" include one brother-in-law.

This analysis suggests that unrelated cohabitants are at dramatically higher risk than related cohabitants. This is primarily due to the high rate of spousal homicide, but with spousal cases removed, nonrelatives are still at

significantly higher risk than relatives ($p < .00001$ by binomial test). The contribution of relatedness per se to these differences remains hypothetical, however, since correlated variables, especially age, might explain much of the variance. Young children, for example, may seldom evoke homicidal reactions, regardless of relationship (though it should be noted that stepchildren are more often severely abused than those living with both natural parents [Wilson, Daly, and Weghorst 1980:335]). Ideally, we should test effects of relatedness with age, social class, and other variables removed but the data necessary for such analyses are nonexistent.

The low proportion of genealogical relationships (6.3%) among the Detroit homicides is not unusual in American studies (see, e.g., Wolfgang 1958:207; Lundsgaarde 1977:231). In other countries, the proportion of total homicides involving blood kin is often higher (e.g., 16.6% of 319 homicides in Uganda [Tanner 1970:95], 17.3% of 307 in Scotland [Gillies 1976:113-114], 29.9% of 107 among the Bishorn Maria of Bastar State, India [Elwin 1950:222-249]). The relatively low proportion in America is partly due to the prevalence of stranger homicides incidental to the commission of robbery, but that is not a complete explanation: strangers comprise less than 30% of victims in various American studies (Curtis 1974: 49, 52, 62). Thus, even if attention is restricted to those American homicides in which victim and offender were known to one another, "relatives" other than spouses generally comprise less than 10%.

The relative incidence of particular victim-offender relationships may be expected to vary

TABLE I. RISK OF HOMICIDE BY RELATIONSHIP (COHABITANTS)

Average person \geq 14 years old, lives with 3.0 people	Number of victims		Relative risk (obs./expected)
	Observed	(Expected)	
0.6 spouses	65	(20)	3.32
0.1 nonrelatives	11	(3)	3.33
0.9 "children"	8	(29)	0.27
0.4 "parents"	9	(13)	0.69
1.0 other "relatives"	5	(33)	0.15

Note: Risk of homicide by relationships, considering only those cases where victim and offender were cohabitants, for Detroit 1972. Risk estimates for "children," "parents," and other "relatives" are inflated because these categories include step and in-law relationships as well as natural relationships. "Other relatives" are mostly siblings, but census information is not adequate to separate these from more distant relatives. See text for further explanation.

between cultures. Different social institutions promote competition among different categories including kin categories (see subheading *Resource competition and fratricide*, p. 66). Simple social interaction frequency may account for some of the variability too. But we propose that even where murders of close relatives are frequent, conflicts are mitigated by blood ties. This principle is particularly well illustrated by Bohannan's discussion of sexual rivalry murders among the Tiv of central Nigeria. "In a community in which 83 percent of the adult males are agnatic kinsmen of one another, the chances that a woman's lover will be a kinsman of her husband are obviously extremely high" (1960a:42). Yet, in only two of eight cases in which a man killed his wife's lover was the victim a relative of the offender, and in neither case a close relative (Bohannan 1960b: appendix).

Any field worker in Tivland realizes that adulteries between women and their husband's kinsmen occur frequently. Tiv do not suggest that such adultery does not occur. They insist, however—and the cases prove them right—that a wife's adulteries must not be allowed to disturb relationships among kinsmen. [Bohannan 1960a:42]

Kinship and Collaborative Homicide

A recent monograph by J. B. Given (1977) analyzing a vast archive of case reports of homicide in 13th-century England, affords an opportunity for a quite different analysis of kin

solidarity. In Given's sample, more than one-third of all homicides were perpetrated by two or more offenders. This presents the possibility of comparing the distribution of victim-offender relationships to that of co-offender relationships. If conflicts and alliances were to arise in proportion to the frequency of interactions—mere social opportunity—then these distributions might be predicted to be similar. Insofar as relatedness promotes cooperation and mitigates conflict, however, they should differ. Indeed they do differ: whereas 6.5% of victims were killed by "relatives" (Given 1977:166, Table 22), 20.2% of co-offenders acted in concert with "relatives" (p. 156, Table 21). On further examination, the difference is greater still. Only 35% of 177 "related" victims (hence 2% of all victims) were blood kin of their killers, while 65% were affines. By contrast, 75% of 567 "related" co-offenders (hence 15% of all co-offenders) were blood kin, while 25% were affines.

A few other studies from various cultures provide samples of homicide cases that permit similar comparisons of victim-offender and co-offender relationships. Table II presents our estimates of Wright's coefficient of relatedness for several samples gleaned from the literature. These are all the samples we have found that meet the following criteria: they must be complete samples rather than illustrative cases, and they must specify both victim-offender and co-offender relationships. The data in Table II reveal that co-offenders are more closely related than victim-and-offender in each case, despite great cross-cultural variation.

TABLE II. ESTIMATED AVERAGE RELATEDNESS OF VICTIM-OFFENDER VERSUS CO-OFFENDERS.

Relationship:	Victim-offender	Offender-offender
	<i>r</i> (N)	<i>r</i> (N)
Detroit (this study)	.03 (508)	.09 (43)
Bhil (Varma 1978:164-280)	.05 (100)	.27 (22)
Munda (Saran 1974:233-241)	.07 (47)	.33 (9)
Oraon (Saran 1974:233-242)	.06 (43)	.23 (7)
Maria (Elwin-1950:222-245)	.09 (130)	.16 (17)
Tzeltal (Nash 1967:458-461)	.06 (26)	.35 (6)
Gros Ventre (Flannery 1953:45-52)	.01 (14)	.50 (1)
13th-century England (Given 1977:45, 57)	.01 (2434)	.08 (2372)

Note: Estimated average degree of consanguinity (Wright's coefficient of relatedness, "*r*") in victim-offender versus co-offender relationships, for eight samples of homicides within different societies. Wright's coefficient (Wright 1922:333) can range from 0 to 1.0. It represents the proportion of genes identical by descent, so that parent and offspring are related by 0.5, full siblings 0.5, uncle-nephew 0.25, first cousins 0.125, and so forth.

The phenomenon of collaborative homicide perpetrated by close relatives will be familiar to many cultural anthropologists, especially in the context of feuds between rival lineages. According to Given, "although the formal, institutionalized blood feud had ceased to be a feature of English society by the 13th century, kinsmen on occasion still exacted revenge for the death of one of their relatives" (1977:44). A perusal of ethnographic sources suggests that blood revenge is extremely widespread, although the detailed prescriptions of the duties of the victim's relatives vary cross-culturally (see, e.g., Otterbein and Otterbein 1965: 1470-1480; Krader 1966:65-67, 100-112; Bohannan 1967: 303-325, 381-408). There could hardly be a more dramatic example of kin solidarity than the sacred obligation of vengeance. By their deterrent force, a man's kin are his security against mistreatment by the hostile world of nonrelatives.

Both participants and observers often separate homicide from warfare, but collaborative killings and blood vengeance illustrate the absence of any sharp distinction. An intergroup skirmish within a village would not generally be considered warfare, whereas the same confrontation after the village has fissioned might. In intergroup strife of this sort among the Yanomamo, Chagnon and Bugos (1979:213-238) have demonstrated that blood relationship is highly relevant to alliance. It may be predicted, therefore, that detailed data on victim-perpetrator and coperpetrator relationships in primitive warfare would reveal kin solidarity to be at least as significant there as in the homicide samples we have considered.

Spousal Conflict

Although evolutionary theory suggests that inclusive fitness maximization is the ultimate "interest" of organisms, it does not follow that commonality-versus-conflict of interest should be a direct function of relatedness alone. Spouses, for example, are themselves unrelated, and yet find commonality of interest in the rearing of offspring who are the inclusive fitness vehicles of both parties.

We would expect spousal harmony to suffer if either party perceives the other to be contributing less to the partnership or, still more damaging, to be channeling resources into own fitness alone. A special case of the latter problem arises with suspicion of nonpaternity. The asymmetrical risk of cuckoldry may be the

ultimate source of the widespread strivings of men to control their wives' activities (Dicke-
mann 1978:163-189, 1979, 1981; O'Faolain and Martines 1973: 1-331), and of the violence with which husbands react to adultery. In a variety of cultures, male sexual jealousy proves to be the leading motive in violent conflicts, including homicide, between men and women, besides motivating numerous killings of rival males (Daly, Wilson, and Weghorst, in press).

Where either spouse brings offspring from a previous union, there is inevitable exploitation of one spouse's resources for the other's inclusive fitness ends. Step-relationships are fertile grounds for resentments leading to violence. In seven households in our Detroit homicide sample, for example, victims were small children under six years of age; four of these involved stepfathers. In the United States, stepchildren are physically abused at substantially higher rates than natural children (Wilson, Daly, and Weghorst 1980:335). The presence of stepchildren may also be associated with violence between spouses. The data that would be required to test this hypothesis are not available for spousal homicides in Detroit. In a Houston study, Lundsgaarde (1977:56-85) provided capsule descriptions of 33 spousal homicides and at least 11 of the husbands involved were stepfathers; this is a minimum estimate since the author expressed no interest in the phenomenon and in each case mentioned it incidentally to other details.

Polygynous households are arenas of conflict between the rival fitness interests of co-wives, and these conflicts sometimes result in homicide. Bohannan's (1960b) book contains several instances of co-wife homicides after disputes over the allocation of paternal resources to the two sets of children. Asuni (1969:1109) describes a Nigerian case in which a second wife killed her husband and his third wife's two children after the murderer's assets were diverted to the third wife. Similarly, Lobban (1972:21) cites a Sudanese case in which "a woman killed her husband in a fight which began because he suggested that since she was childless, some of the produce from her cultivation should go to his other wife's children."

Kin Conflict

We have argued above that homicidal conflict between blood relatives is rare in relation to opportunity. Nevertheless, it occurs with sufficient frequency to present a challenge to the

proposition that human passions have evolved in the service of inclusive fitness promotion. Some cases might be considered to result from extreme psychopathology. In our Detroit sample, four parricides evidently fit this description, and so might the case of a young mother so depressed as to gas her two small children and herself. Psychiatric studies of murderers have repeatedly found a much higher proportion of insane killers among those who murder kin than among those who kill nonrelatives (e.g., Gillies 1976:113-114; Wong and Singer 1973:297). Though one may protest that the judgment of insanity may be biased by the nature of the offense, it does appear that identifiable psychiatric syndromes are relatively prevalent among killers of kin.

Of course, if we simply dismiss behavior embarrassing to our theoretical stance as psychopathological, we have not explained it. An evolutionary perspective does not demand that all behavior is adaptive, only that normal motives should be adaptive in their average effects in normal environments (Symons 1979: 31-50). Bizarre passions leading to manifestly maladaptive actions must eventually be explicable as lawful errors—the dysfunctional products of a human psyche whose fundamental structure has nevertheless evolved in the service of inclusive fitness promotion. Be that as it may, the motives and circumstances surrounding a substantial proportion of kin killings manifest straightforward adaptive logic. We will briefly discuss two categories of such cases.

Defense of one relative against another. In our Detroit sample, four teenagers shot their fathers. The four cases were similar. In each, the father was beating his wife, not for the first time, when the teenager fetched the family gun and demanded that the beating stop. None of the fathers acceded to their children's threats, with fatal results.

Defense of a relative is even more prevalent in cases where the victim and offender are in-laws or other nominal kin. One stepfather was killed in circumstances like those surrounding the four patricides above. Four wife-beaters were killed by their wives' relatives—two by brothers, one by a sister and one by a father. Another killed his wife's sister when the victim tried to intervene in a wife beating. Thus, each of six homicides involved an effort to defend a blood relative against an abusive affinal relative. By contrast, only one case was of the opposite type: a 46-year-old man shot his 25-year-old son for battering the offender's wife/victim's mother.

Defense of female kin against abusive spouses

is a conspicuous category of conflicts leading to homicides in other cultures as well (e.g., Varma 1978:166; Bohannan 1960b: appendix; Driver 1961:156; Elwin 1950:229, 235).

Resource competition and fratricide. Intense sibling rivalry is an ironic consequence of kin solidarity. It is precisely because property is generally held and inherited familiarly that brothers or other relatives are frequently competitors for limited resources.

There are seven brother-brother homicides in our Detroit sample (1.4% of 508 solved cases). At least five of these resulted from disputes over property or money; in the other two cases the nature of the dispute could not be discerned from information available in the police files.

Fatricides evidently comprise a larger proportion of homicides in agricultural societies, where fraternal competition for familial landholdings is intense. Consider, for example, two recent studies of patrilineal and predominantly patrilocal aboriginal peoples in India, with inheritance practices such that one-half goes to the youngest son and the rest is divided among all other sons. In the first example, 6 of 100 Bhil homicide cases summarized by Varma (1978: 164-280) were fratricides. All 6 were property disputes, which may be contrasted with 8 brother-in-law killings, only 1 of which revolved around a financial or property issue. In the second study (Saran 1974:233-242), 90 solved homicides among the Munda and Oraon included 9 brother-brother slayings. Eight of these arose from property disputes, the ninth from a challenge to an elder brother's authority. Some uncle-nephew and cousin killings also derived from property conflicts. The single patricide in these two Indian samples was committed by a disgruntled eldest son whose requests for goods were refused in favor of younger brothers. Another eldest son was killed by his father and younger brother in a fight precipitated by the elder's resentment of the younger's primacy. And one man killed his grandfather, who favored his daughter's sons—the offender's cousins—while denying the offender the patrilineal inheritance to which tradition entitled him.

Concluding Remarks

It is not our thesis that homicidal violence is an evolved adaptation. Murder is likely to have disastrous consequences for the murderer's inclusive fitness, and there are reasons for supposing that this has long been the case. Men who kill wives may have trouble replacing them.

Men who kill comrades are ostracized if not executed. Moreover, killings initiate feuds and feuds are liable to leave several members of both families dead (see, e.g., Lee 1979:390-395; Hasluck 1967:381-382; Jenness 1922:94-95). Although some homicides undoubtedly follow a rational weighing of the probable consequences, we suggest that most are impulsive and are overreactions—"mistakes" in terms of their probable effects upon inclusive fitness. Occasional homicidal overreaction is hardly surprising when we consider the general utility of a credible threat of violence in social transactions. But even where a murder is a "mistake"—a disaster for the perpetrator's inclusive fitness—we are likely to find that the underlying passions manifest the adaptive logic of nepotistic self-interest.

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¹ Police files on all 690 homicides were examined in detail during 1973-1974 by M. Wilt, who coded cases with respect to 70 variables, including ages, sexes, victim-offender relationship, and a set of conflict typologies of her own devising (Wilt 1974). We have added additional codings and updated the data by further examination of files completed since Wilt's study.

A closed homicide case is one for which the police have identified a perpetrator to their own satisfaction, even in the absence of a conviction or prosecution. Wilt categorized homicides as "crime specific" (incidental to the commission of another crime, usually robbery) or "social conflict." The 168 closed crime-specific homicides included 119 stranger relationships, 47 acquaintances, and 2 relatives. The 339 closed social conflict cases included 19 strangers, 193 acquaintances, 125 relatives, and 2 unknowns. Five uncategorized closed homicides included 3 acquaintances and 2 unknown relationships. Three accidental deaths, included in the Detroit homicide files due to technicalities, have been excluded from our analyses: two unsupervised infants died in a fire and their mother was charged with "attempted abandonment," while the mother of another child who met an accidental death was charged with "negligent manslaughter."

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