

Some Differential Attributes of Lethal Assaults on Small Children by Stepfathers versus Genetic Fathers

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Killings of children less than five years of age by stepfathers versus (putative) genetic fathers are compared on the basis of Canadian and British national archives of homicides. In addition to previously reported differences in gross rates, the two categories of killings differed in their attributes. Beatings constituted a relatively large proportion of steppaternal homicides, whereas genetic fathers were relatively likely to shoot or asphyxiate their victims. A substantial proportion of killings by genetic fathers, but almost none of those by stepfathers, were accompanied by suicide and/or uxoricide. These contrasts lend support to the hypothesis that the differential risks incurred by children in different household types reflect the differential parental solicitude that is predictable from an evolutionary model of parental motivation.

KEY WORDS: Child abuse; Discriminative parental solicitude; Evolutionary psychology; Family violence; Filicide; Homicide; Stepchildren; Stepfathers, Suicide.

The rates at which stepparents abuse and kill their stepchildren are much greater than the corresponding rates in genetic parent-child relationships (for references, see Daly and Wilson 1991).

The first reported evidence of this differential risk was Wilson, Daly, and Weghorst's (1980) demonstration that U.S. stepchildren were overrepresented as reported child abuse victims. For the most unequivocal manifestation of child maltreatment, namely lethal abuse, the U.S. data indicated that the youngest children (ages 0-2) incurred about 100 times greater risk at the hands of stepparents than of genetic parents (Daly and Wilson 1988b). A Canadian study produced similar results, with children aged 0-2 incurring about 70 times greater likelihood of being killed by a stepparent than by a genetic parent (Daly and Wilson 1988a).

The possibility of excess risk in stepfamilies had been overlooked by

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researchers lacking an evolutionary perspective, but immediately suggests itself when one considers how natural selection would be expected to shape evolved mechanisms of parental psychology. Parental investment is a valuable resource that can be parasitized by nonrelatives, and animals manifest a wide range of complex adaptations for countering such parasitism (Daly and Wilson 1988c, 1994). It would thus be surprising if the relatively "selfless" motivational and emotional states of parental solicitude were readily and fully engaged by a new mate's offspring from a prior union (Rohwer 1986). By this reasoning, a differential risk of violent lapses of parental solicitude is just one, relatively extreme, consequence of the fact that genetic parents' solicitude generally exceeds that of stepparents.

Of course, the fact that differential risk was both predicted and confirmed does not prove that it is a consequence of the hypothesized differences in solicitude. It might instead be an artifact of some correlate (or "confound") of stepparental relationships. Thus far, however, all such hypotheses have failed. Excess risk to stepchildren cannot be attributed to reporting or detection biases, nor to incidental traits of persons who remarry, nor to differential poverty, duration of coresidency, maternal youth, or brood size (Daly and Wilson 1985; Wilson and Daly 1987; Flinn 1988; Volland 1988; Daly, Singh and Wilson 1993). Stepparenthood per se is apparently the relevant risk factor, as expected on the basis of the argument in the preceding paragraph.

In this article, we address the question of whether stepparental homicides differ from those perpetrated by genetic parents in more than just their gross rates. Case descriptions suggest that genetic parents who kill their children often do so "more in sorrow than in anger": out of perceived necessity (Daly and Wilson 1984, 1988b) and/or as part of a suicide in which the homicide may even be construed as a "rescue" (Daly and Wilson 1988b). We propose that stepparental homicides differ, in the aggregate, by being relatively often motivated by hostile resentment of the victims. If this hypothesis is correct, we might expect the homicidal events to be qualitatively different in various ways, and this article reports such differences.

The present analyses are confined to killings of children under the age of five years. One rationale for this restriction is that these cases clearly cannot be construed as matters of mutual combat or self-defense. Moreover, differential risk from stepparents versus genetic parents has consistently been found to be maximal for the youngest children (Daly and Wilson 1988b). One possible interpretation is that stepparents of very young children incur the greatest social pressure, from mates and others, to feel and act like genetic parents, a pressure they often resist and resent, sometimes violently. For this age group, stepparental abuse is overwhelmingly *steppaternal* abuse, not necessarily because stepfathers are more dangerous than stepmothers but because small children scarcely ever reside with stepmothers. Accordingly, and in view of the distinct motivational factors relevant to maternally perpetrated neonaticide (Daly and Wilson 1984), the present analyses compare only stepfathers versus genetic fathers.

STEPPATERNAL VS GENETIC PATERNAL HOMICIDES IN CANADA

The Canadian National Homicide Archive

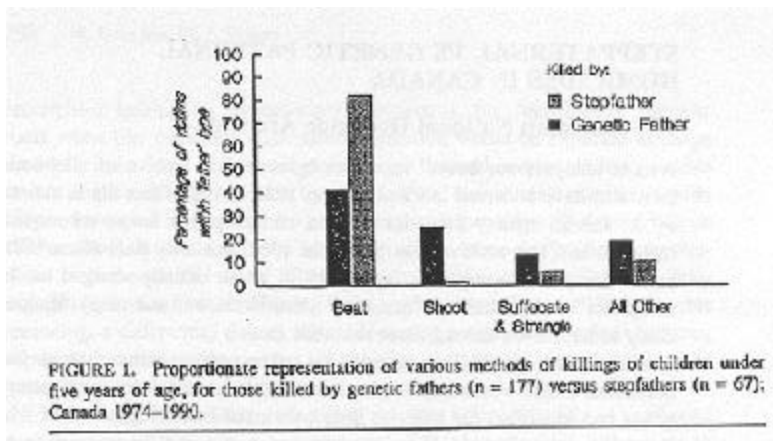
Present analyses are based on a case-by-case data archive of all homicides known to have occurred in Canada from 1974 to 1990. This file is maintained by the federal agency Statistics Canada, and all police forces are required to report to it. (The archive was begun in 1961, but only data since 1974 are useful for present purposes. Before 1974, cases initially charged as "manslaughters" rather than as "murders" were excluded, and many filicides are likely to have been among these excluded cases.)

Identification of killers is based on police codings rather than on judicial outcomes: a case was deemed solved and killer characteristics were recorded if police had identified the killer to their own satisfaction, regardless of whether the case was prosecuted. This is a better case criterion for research purposes than criminal conviction, for various reasons (Daly and Wilson 1988b) including the fact that identified perpetrators are not prosecuted if they commit suicide (which filicidal parents often do) or if they are found mentally unfit to stand trial. Police continue to close unsolved cases even years later; the data were current as of 1993.

The lists of codes by which police categorized killer-victim relationships includes "father", "stepparent," and "commonlaw father" (as well as "foster parents," which are excluded from the present analyses). A separate "sex of killer" variable distinguishes stepfathers from their female counterparts. "Commonlaw father" was defined for the coders as referring to a substitute father in loco paternis by virtue of his de facto or commonlaw relationship with the victim's mother; by application, then, Statistics Canada's stepfather category is limited to men who had entered into registered marriages with their victims' mothers. For analyses in this article, however, these two categories are combined; in other words, we will define stepfather (like father) without regard to registered marital status.

Statistics Canada's father code is the only available criterion for identifying genetic father cases, to compare with stepfather cases. It should be noted, however, that not all relationships coded as father were necessarily genetic. Adoptive parenthood was not separately coded, and any killings by adoptive fathers (other than adoptive stepfathers) should have been coded as father cases. Moreover, "father" is of course an attribution: Paternity was not routinely - indeed, as far as we know, was never-verified. This is of interest because suspicions of nonpaternity are germane to some (perhaps many) filicides (Daly and Wilson 1988b), and the motivations in such cases might resemble those in steppaternal cases more closely than those in paternal cases in which paternity is unquestioned; the present data do not permit such distinctions.

Methods of killing are coded as shooting, beating, stabbing, strangling, suffocating, drowning, arson, and other. Multiple victims in a single incident



are linked by an incident code. Another code indicates whether the killer committed suicide in the immediate aftermath of the homicide.

Incidence and Means of Killing

In this 17-year sample, a total of 178 Canadian children less than five years of age were killed by their fathers and 67 by stepfathers. For the Canadian population, by way of comparison, fewer than 0.6% of children under the age of five may be estimated to have *had* stepfathers (whether registered marriage or de facto over the period 1974-1990, whereas about 91% dwelt with their genetic fathers (Burch 1985; our analyses of data tapes from Statistics Canada's "General Social Survey" of 1990). The 178 filicides perpetrated by genetic fathers constitute a rate of about 6.3 per million preschoolers living with their genetic fathers per annum, and the 67 perpetrated by stepfathers constitute a rate of about 392 per million preschoolers living with stepfathers per annum. Thus, homicide risk from stepfathers was approximately 60 times higher than from genetic fathers for this age group, replicating the immense differential found in prior analyses (Daly and Wilson 1988a,b).

The most frequent method of killing in these 245 homicides was beating ($n = 129$, 53% of 244 cases for which the method was recorded). Shooting was the second most common method ($n = 46$; 19%), and suffocating ranked third ($n = 18$; 7%). The relative prevalence of these methods of killing in genetic father versus stepfather cases is portrayed in Figure 1.

Beatings constituted 82% of 67 homicides perpetrated by stepfathers, but just 42% of 177 by genetic fathers; this is a highly significant difference (Table 1). By contrast, 25% of the victims of genetic fathers were shot versus just 1.5% of the victims of stepfathers; this, too, is a significant contrast and remains so even when beatings are removed from consideration in a hierarchical succession of tests (Table 1; see Fienberg 1980). Suffocation and strangulation

Table 1. Frequencies of Various Methods of Killings of Children Under Five Years of Age by Stepfathers Versus Genetic Fathers; Canada 1974-1990

	Stepfathers		Genetic Fathers	
	N	%	N	%
A. Beating	55	82.1	74	41.8
B. Shooting	1	1.5	45	25.4
C. Suffocation and strangulation	4	6.0	24	13.6
D. All other	7	10.4	34	19.2
Likelihood				
	χ^2		df	p
A (Beating) vs (B+C+D)	33.87		1	<.00001
B (Shooting) vs (C+D)	6.76		1	.009
C (Suffocation and Strangulation) vs D	0.10		1	.755
A vs B vs C vs D	40.73		3	<.00001

lation together accounted for 14% of the victims of genetic fathers and 6% of the victims of stepfathers.

Another way to express these results is to note that whereas a stepfather was about 60 times more likely to kill his preschool child than a genetic father, this contrast does not apply to all means of killing. In particular, a stepfather was not demonstrably more likely than a genetic father to shoot a child, but he was 120 times more likely to beat one to death.

Additional Victims

Differential risk resides largely in fatal beatings. This finding supports the suggestion that steppaternal homicides are especially often motivated by hostile feelings toward the child. Apparently quite different are cases in which one or more children are killed by a suicidal father, who may also kill his wife as well, and who in some cases even indicates by note or otherwise that he deems

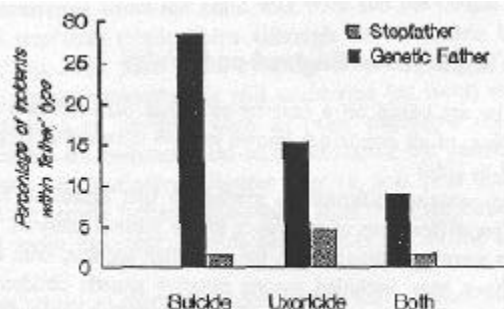


FIGURE 2. The proportions of incidents of killings of children under five years of age by genetic fathers (n = 155) versus stepfathers (n = 66), in which the killer also killed himself (suicide), his wife (uxoricide), or both; Canada 1974-1990.

the massacre a rescue of his loved ones (Wilson and Daly 1994). Figure 2 portrays the prevalence of suicide and uxoricide (wife-killing) in association with steppaternal and genetic paternal homicides.

Sixty-three of the 178 filicides perpetrated by genetic fathers (35%) occurred in conjunction with the killer's suicide. Because several of these filicidal men slew multiple victims (and as these killers of multiple victims were especially often suicidal), the number of independent suicide cases is smaller: 44 out of 155 filicidal men (28%). By contrast, only one of 66 men who killed stepchildren committed suicide. The difference is highly significant ($\chi^2 = 20.6$, $p < .001$).

Men who killed their genetic children were also more likely to kill their wives (16% : 24/155) in the same incident than were men who killed their stepchildren (5% : 3/66; $\chi^2 = 5.2$, $p < .05$); and they were more likely to kill both wife *and* self (14/155 versus 1/66; $\chi^2 = 4.1$, $p < .05$).

Thus, some considerable proportion of men's killings of their genetic offspring appear to have been undertaken as parts of suicidal and/or familicidal projects, in which despondency may be of greater motivational relevance than hostility to the victims (Wilson and Daly 1994). The same cannot be said of cases in which men killed their stepchildren.

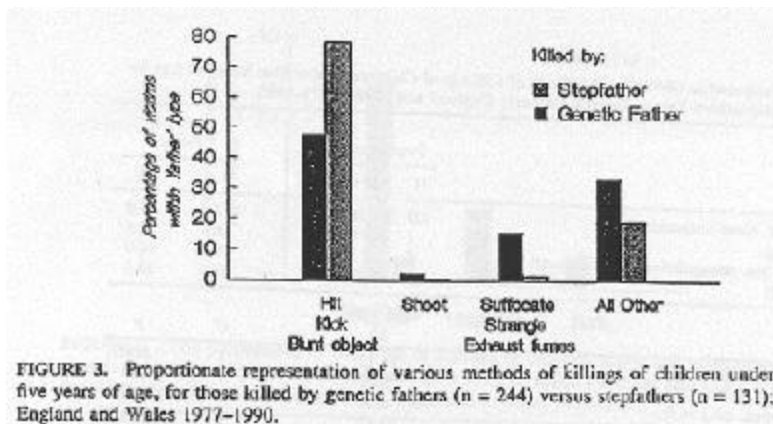
A BRITISH REPLICATION

Most of the above analyses of Canadian homicides can be replicated using British data. Although the homicide rate in England and Wales is only about half that in Canada, the population is twice as large, yielding comparable total numbers of homicides per annum. Moreover, as is generally true where homicide rates are relatively low (Daly and Wilson 1998b), the proportion of cases perpetrated by parents and substitute parents is relatively high in Britain, yielding larger numbers of cases for the specific topic under consideration here.

The Homicide Archive for England and Wales

Analyses to follow are based on a case-by-case data file, maintained by the British Home Office, of all homicides known to have occurred in England and Wales from 1977 to 1990.

This archive contains information similar to that described above for Canada, with a few differences of relevance to the present analyses. Whereas adoptive children were not identified in the Canadian archives with the result that some may have been included among putative genetic children, British adoptees were distinguished; in fact, no children under five years of age were slain by adoptive fathers. Also differing from the Canadian data base are the specific categories by which English and Welsh police report the methods of killing: sharp instrument, blunt instrument, hitting or kicking, strangulation, exhaust fumes, other poisoning, shooting, exposure (newborn), negligence/



neglect, drowning, causing to fall, burning or scalding, suffocation, arson, and other.

Incidence and Means of Killing

In this 14-year sample, a total of 247 English and Welsh children less than five years of age were killed by their (putative) genetic fathers and 131 by stepfathers (including those in both registered and de facto unions with their victims' mothers).

Translation of these 378 deaths into rates must be even more tentative than the Canadian case, because population-at-large estimates of the numbers of children living with stepfathers vs genetic fathers are questionable. On the basis of British General Household Surveys, Clarke (1992) has estimated that 90% of children in the age range 0-4 dwelt with their natural fathers in 1979, 88% in 1981, and 85% in 1985, whereas the percentage living with stepfathers rose from 3% to 4% to 5%. Clarke noted, however, that all cases in which the mother was unmarried when the child was born and the couple then married were deemed stepfather relationships although the man "may in fact be the natural father" (p. 318). Such cases constituted the majority of all stepfather relationships, greatly outnumbering still unmarried (de facto) stepfathers and married stepfathers of children born in prior marriages combined. Thus Clarke's estimates are overestimates to an unknown but possibly substantial degree, and whatever the correct figures may be, it is clear that the obtained ratio of just 1.89 genetic father homicides (n = 247) per stepfather homicide (n = 131) must again represent considerable excess risk at the hands of stepfathers.

The most prevalent method of homicide in these British killings of small children was hitting or kicking, accounting for 212 (57%) of the 375 deaths for which a method was coded. No other single method accounted for more than

Table 2. Frequencies of Various Methods of Killings of Children Under Five Years of Age by Stepfathers Versus Genetic Fathers: England and Wales 1977-1990

	Stepfathers		Genetic Fathers	
	N	%	N	%
A. Hit, kick, blunt instrument	100	78.6	117	48.0
B. Shooting	1	0.8	6	2.5
C. Suffocation, strangulation, exhaust fumes	2	1.5	39	16.0
D. All other	25	19.1	82	33.6
Likelihood				
	χ^2	df	P	
A (Hit, etc.) vs (B+C+D)	34.75	1	<.00001	
B (Shooting) vs (C+D)	0.07	1	.784	
C (Suffocation, etc.) vs D	8.30	1	.004	
A vs B vs C vs D	43.12	3	<.00001	

24 deaths (6%); only seven children (2%) were shot. Figure 3 portrays the relative prevalence of methods of killing in genetic father versus stepfather cases, with categories combined in such a way as to provide the closest analogues to the Canadian categories. Killings with a blunt instrument, which accounted for just 2% of the cases, are combined with hitting and kicking to parallel the Canadian beating category, and killings by exhaust fumes are combined with suffocations and strangulations.

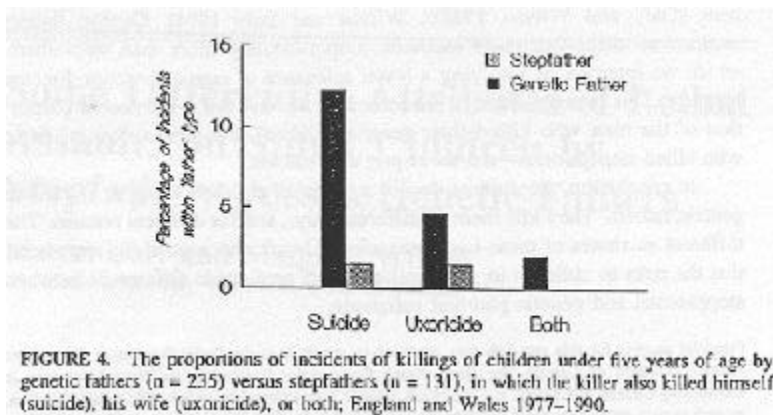
As with beating in Canada, the British categories hitting and kicking plus blunt instrument accounted for a much larger share (79%) of steppaternal killings than of genetic paternal killings (48%). When the British data (Table 2) are subjected to the same chi-square analysis (Fienberg 1980) as was applied to the Canadian cases (Table 1), this contrast is again highly significant. Unlike in Canada, however, the few British shootings did not constitute significantly different proportions of the two groups of cases, whereas the much larger share of genetic father (16%) than of stepfather cases (2%) that was perpetrated by suffocation, strangulation, or exhaust fumes does constitute a significant contrast, even with beatings and shootings removed from consideration.

Additional Victims

Figure 4 portrays the prevalence of suicide and uxoricide in these cases. Although the incidence of suicide and uxoricide in these British cases was considerably lower than in the corresponding Canadian cases (Figure 2), patterns in relation to steppaternal versus genetic paternal perpetration are similar.

Twenty-nine of 235 genetic fathers (12%), representing 35 of 247 filicide victims, committed suicide, compared to just 2 of 131 stepfathers (1.5%). As in Canada, this difference is highly significant ($\chi^2 = 12.7$, $p < .001$).

Contrasts in the conjunction of uxoricide and filicide (Figure 4) also



paralleled the Canadian data (Figure 2), but British cases were few and the contrasts were not significant. Killers of their genetic children also killed their wives in 11 of 235 cases (5%) versus 2 of 131 (1.5%) for killers of stepchildren ($p = .098$ by Fisher exact probability test); and five of the genetic fathers versus none of the stepfathers both killed their wives and committed suicide ($p = .107$ by Fisher test).

DISCUSSION

We interpret the data presented in this article as support for the proposition that different distributions of motivating factors characterize these two sets of homicides.

More specifically, stepfathers who killed small children were far more likely than homicidal genetic fathers to have beaten their victims to death (Figures 1 and 3), whereas the latter killers relatively often shot (Canada) or asphyxiated (Britain) their victims. Beatings seem likely to be precisely the sorts of lethal assaults motivated by antipathy directed specifically at the victims. In many lethal beatings of small children, police investigatory materials point to a prolonged period of continuing assaults which eventually, accidentally, kill. In many others, death appears to be the product of a single outburst of rage, attributed by the killer to some irritant such as that the victim "wouldn't stop crying." It is of course a normal part of parenting to endure potentially irritating impositions from children, and the probability that a caretaker will react with potentially damaging anger must be partly a function of that particular caretaker's degree of personalized affection/antipathy for that particular child.

Killers intent on disposing of their victims quickly and/or painlessly are unlikely to beat them to death. They may be especially likely to shoot or asphyxiate them, instead. Suicidal familicidal men who leave notes claiming a "rescue" motivation, for example, often shoot or smother their victims in their

beds (Daly and Wilson 1988b; Wilson and Daly 1994). Genetic fathers resorted to these homicide methods proportionately more than stepfathers, which we interpret as implying a lesser relevance of rage and victim-directed hostility. This interpretation is reinforced by the fact that a substantial proportion of the men who killed their genetic children - but almost none of those who killed stepchildren - did so as part of a suicide.

In conclusion, stepfathers do not merely kill children at higher rates than genetic fathers. They kill them in different ways, and for different reasons. The different attributes of these two categories of homicides support the hypothesis that the risks to children in stepfamilies reflect predictable differences between stepparental and genetic parental solicitude.

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