

Methods of Filicide: Stepparents and Genetic Parents Kill Differently

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Stepparents commit filicide at higher rates than do genetic parents. According to M. Daly and M. I. Wilson (1994), motivational differences generate differences in the methods by which stepparents and genetic parents kill a child. Using Canadian and British national-level databases, Daly and Wilson (1994) found that stepfathers were more likely than genetic fathers to commit filicide by beating and bludgeoning, arguably revealing step-parental feelings of bitterness and resentment not present to the same degree in genetic fathers. Genetic fathers, in contrast, were more likely than stepfathers to commit filicide by shooting or asphyxiation, methods which often produce a relatively quick and painless death. We sought to replicate and extend these findings using a United States national-level database of over 400,000 homicides. Results replicate those of Daly and Wilson (1994) for genetic fathers and stepfathers. In addition, we identified similar differences in the methods by which stepmothers and genetic mothers committed filicide. Discussion addresses stepparental psychology in light of the current research, limitations of the current study, and future directions for research on this topic.

Keywords: stepfamily; filicide; abuse; genetics; murder; domestic violence

Parent-child relationships can be loving and emotionally rewarding. These relationships also can be physically, emotionally, and financially exhausting. The sometimes exhausting costs for parents are usually outweighed by the many psychological and emotional benefits. Some parent-child relationships are not perceived as satisfying, however, and these relationships may include child abuse, neglect, and sometimes filicide—the killing of a child by a parent. How can a relationship known so often as loving and caring end in murder?

Prior to the research conducted by Wilson, Daly, and Weghorst (1980), victims of child abuse and neglect were documented to be more frequently found in homes in which a stepparent resided, but this previous research did not address how and why the presence of a stepparent might increase the risk of child abuse and neglect. Gil (1970), for example, found that 22% of child abuse victims lived with a stepparent, but offered no discussion of this powerful finding.

Using an evolutionary psychological perspective, Wilson and associates (1980) provided a clear theoretical rationale and directed hypotheses for the increased risk of child abuse and neglect for children living with stepparents. Based on inclusive fitness theory (Hamilton, 1964), a parent will invest more in genetic offspring because they are carrying copies of their genes. Because stepparents do not share genes with their stepchildren, stepparents may display less solicitude toward their stepchildren than genetic parents do toward their genetic children. Wilson and colleagues (1980) found support for their evolutionarily

informed hypothesis. Residence with a stepparent is the single best predictor of child abuse and neglect, even after controlling for potential confounds such as socioeconomic status (see also Daly & Wilson, 1985, 1988, 1998). Does the increased risk of a stepparent harming a child extend to filicide?

Daly and Wilson (1988) investigated the risk of filicide by stepparents and by genetic parents. They found that, in an American sample, children less than 2 years of age living with one stepparent and one genetic parent are 100 times more likely to be killed than are children living with two genetic parents. The results of the study were replicated using a Canadian database of homicides (Daly & Wilson, 1988). Canadian children under 2 years of age are 70 times more likely to be killed by a stepparent than by a genetic parent. This increased risk of abuse and filicide by stepparents has been documented across diverse cultures (see Bjorklund & Pellegrini, 2002, and Daly & Wilson, 1988, 1998).

Genetic parents more than stepparents experience emotional rewards throughout a child's development (Duberman, 1975; see also Daly & Wilson, 1988). Stepparents report less "parental" feeling toward stepchildren than is reported by genetic parents toward their children, and fewer stepparents than genetic parents report that they experience "parental love" toward their wards (Duberman, 1975). Stepparents also spend less money on stepchildren, relative to genetic parents' monetary expenditures on their children (Anderson, Kaplan, & Lancaster, 1999).

Because some stepparents sometimes do not reap emotional benefits of investing in genetically unrelated children, feelings of bitterness and resentment toward the stepchild may develop. At the extreme, such bitterness might motivate physical abuse and the killing of a child. Filicide is not unknown for genetic parents, but the motives for these killings may be different than when stepparents kill their wards (Daly & Wilson, 1994). One manifestation of this difference may reside in the methods by which genetic parents and stepparents commit filicide.

Filicides committed by stepparents may be motivated by rage, bitterness, and resentment, and these feelings might be revealed in the method of filicide. Prolonged beating with a fist or bludgeoning to death, for example, arguably reveals intense rage and anger (Daly & Wilson, 1994). Filicides committed by genetic parents may be motivated by feelings of sorrow or by feelings of "rescuing" a child from inevitable disaster or an unhappy future. Genetic parents may be less likely to use methods of killing that prolong death and that inflict extended and extensive pain and suffering. Shooting a child, providing a quicker death, may reveal feelings of sorrow or rescue fantasies underlying the filicide.

Using Canadian and British databases, Daly and Wilson (1994) examined the methods by which stepfathers and genetic fathers commit filicide. Consistent with an evolutionary psychological hypothesis, Daly and Wilson (1994) found, across both databases, that stepfathers more often commit filicide by prolonged beatings and bludgeoning, whereas genetic fathers more often commit filicide by shooting and asphyxiation—methods that often produce a quicker and less painful death.

In the current study, we attempted to replicate the work of Daly and Wilson (1994) by using a national-level United States database to examine the methods of filicide committed by stepfathers and genetic fathers. Following Daly and Wilson (1994), we included for analysis filicides in which the victim was younger than 5 years. Daly and Wilson (1994) noted that there also may be differences in the method of filicide (and hence underlying motivational factors) committed by stepmothers and genetic mothers, but did not examine these differences. Because younger children usually do not live with stepmothers, Daly

and Wilson (1994) focused on filicides committed by stepfathers. Using a larger database of homicides, we were able to extend their work by examining the methods of filicide by stepmothers and genetic mothers.

We tested two hypotheses in the current research. The first hypothesis is that the rates of filicide committed by stepparents and genetic parents will differ. We derived three predictions from this hypothesis: The rate of filicide will be higher for stepparents relative to genetic parents (Prediction 1), stepfathers relative to genetic fathers (Prediction 2), and stepmothers relative to genetic mothers (Prediction 3). The second hypothesis is that the percentage of filicides committed by stepparents and genetic parents will differ as a function of the method of killing. We derived three predictions from this hypothesis: The percentage of filicides that reveal an underlying bitterness and resentment, such as beating and bludgeoning, will be higher for stepparents relative to genetic parents (Prediction 4), stepfathers relative to genetic fathers (Prediction 5), and stepmothers relative to genetic mothers (Prediction 6).

In summary, the current study aims to replicate and extend the work of Daly and Wilson (1994). Working from an evolutionary perspective, we hypothesized that the rate of filicide committed by stepparents will be higher than the rate of filicide committed by genetic parents and that the percentage of filicides committed by stepparents and genetic parents will differ in ways that reveal differences in parental psychology. We tested these hypotheses using a United States national-level database of over 400,000 homicides.

METHODS

Database and Procedures

The United States Federal Bureau of Investigation (FBI) collects information from each state on criminal homicides. This information is gathered using Supplementary Homicide Reports (SHRs), which include incident-level data on each homicide. The database used for the current study includes SHRs for the years 1976 through 1994 (Fox, 1996) and provides information on 429,729 homicides.

There were 3,925 cases in which a child less than 5 years old was killed by a stepparent or a genetic parent. Of these cases, 309 were cases in which a stepfather committed filicide, 1,741 were cases in which a genetic father committed filicide, 30 were cases in which a stepmother committed filicide, and 1,845 were cases in which a genetic mother committed filicide. Analyses include cases in which (a) the victim was less than 5 years of age, (b) the victim was a stepchild or a genetic child of the offender, and (c) the incident was coded as a single offender/single victim homicide.

The SHR database codes 16 methods of killing. We created four composite variables for method of killing, paralleling the analytic strategy of Daly and Wilson (1994) using Canadian and British databases. We labeled the four variables *shoot*, *beat*, *suffocate-drown-strangle*, and *other*. The variable “shoot” includes filicides committed by methods coded as “firearm,” “handgun,” “rifle,” and “shotgun.” The variable “beat” includes filicides committed by methods coded as “blunt object (hammer, club, etc.),” and “personal weapon (hands, feet, teeth, etc.).” The variable “suffocate-drown-strangle” includes filicides committed by methods coded as “suffocate,” “drown,” and “strangle (choking, hanging, drowning, etc.).” The variable “other” includes filicides committed by methods coded as “knife/cutting instrument (ax, screwdriver, etc.),” “fire,” “poison,” “pushed out window,”

and “drugs.” The FBI also codes for filicides in which the method was not known, not determined, or not provided in the SHR. We excluded from analyses cases for which the method of killing is coded as “unknown.”

We calculated filicide rates using population estimates secured from the Survey of Income and Program Participation (SIPP), Wave 2 (1996; population estimates available from the first author upon request). The SIPP is administered and maintained by the United States Census Bureau and provides information on household relationships, including parent-child relationships. Prior to conducting analyses, we screened the SHR data to identify coding errors, such as a victim-age discrepancy for which the child is older than the parent. We did not identify any coding errors.

RESULTS

During the 19-year study period (1976 to 1994) there were 8,691 filicides of children less than 18 years old, accounting for 2.9% of all homicides in which the relationship between the victim and the offender was known. Children less than 5 years old (the focus of the current research, following Daly & Wilson, 1994) accounted for 42% of the 8,691 filicide victims. We calculated filicide rates by dividing the number of filicides for a given relationship category by the relevant parent-child relationship population estimate. Children less than 5 years old were killed by a stepparent at a substantially higher rate (51.2 children per million children per annum) than by a genetic parent (15.6 children per million children per annum).

The per annum rates of filicide per million children less than 5 years old committed by stepfathers, genetic fathers, stepmothers, and genetic mothers were then calculated. The per annum filicide rate for stepfathers (60.0 children per million children) was substantially higher than the per annum filicide rate for genetic fathers (7.0 children per million children). And the per annum filicide rate for stepmothers (20.6 children per million children) was substantially higher than the per annum filicide rate for genetic mothers (8.6 children per million children).

Next, we calculated the percentage of filicides of children less than 5 years old committed by stepparents and by genetic parents by the method of killing (shoot, beat, suffocate-drown-strangle, and other). About 93% (93.2%) of 339 filicides perpetrated by stepparents and 67.6% of 3,586 filicides perpetrated by genetic parents were committed by beating. Exactly 5% of the filicides perpetrated by stepparents and 18.0% of the filicides perpetrated by genetic parents were committed by suffocation-drowning-strangling. About 1% (0.9%) of filicides perpetrated by stepparents and 5.8% of filicides perpetrated by genetic parents were committed by shooting. About 1% (0.9%) of filicides perpetrated by stepparents and 8.6% of filicides perpetrated by genetic parents were committed by “other” methods. All comparisons of percentages between relationship (step vs. genetic) and within method of killing were significantly different (all z s $>$ 6.00, all p s $<$.05, two-tailed).

We then calculated the percentage of filicides of children less than 5 years old committed by stepfathers and genetic fathers by the method of killing. About 93% (93.2%) of 309 filicides perpetrated by stepfathers and 79.9% of 1,741 filicides perpetrated by genetic fathers were committed by beating. These percentages were significantly different, $z = 7.69$, $p <$.05 (two-tailed). Exactly 1% of filicides perpetrated by stepfathers and 8.2% of filicides perpetrated by genetic fathers were committed by shooting. These

percentages were significantly different, $z = 8.57, p < .05$ (two-tailed). About 5% (5.2%) of filicides perpetrated by stepfathers and 6.5% of filicides perpetrated by genetic fathers were committed by suffocation-drowning-strangling. These percentages were not significantly different, $z < 1.00, p > .05$ (two-tailed). Less than 1% (0.6%) of filicides perpetrated by stepfathers and 5.5% of filicides perpetrated by genetic fathers were committed by "other" methods. These percentages were not significantly different, $z < 1.00, p > .05$ (two-tailed).

Finally, we calculated the percentage of filicides of children less than 5 years old committed by stepmothers and genetic mothers by the method of killing. About 93% (93.3%) of 30 filicides perpetrated by stepmothers and 56.1% of 1,845 filicides perpetrated by genetic mothers were committed by beating. These percentages were significantly different, $z = 7.93, p < .05$ (two-tailed). About 3% (3.3%) of filicides perpetrated by stepmothers and 28.7% of filicides perpetrated by genetic mothers were committed by suffocation-drowning-strangling. These percentages were significantly different, $z = 7.34, p < .05$ (two-tailed). About 4% (3.6%) of filicides perpetrated by genetic mothers were committed by shooting, whereas no filicides by stepmothers were committed by shooting (and, therefore, a statistical test paralleling previous tests could not be conducted). About 3% (3.3%) of filicides perpetrated by stepmothers and 11.5% of filicides perpetrated by genetic mothers were committed by "other" methods. These percentages were significantly different, $z = 2.36, p < .05$ (two-tailed).

DISCUSSION

Using a national-level United States database of over 400,000 homicides, we tested the hypotheses that the rate of filicide committed by stepparents would be higher than the rate of filicide committed by genetic parents, and that the percentage of filicides committed by stepparents and by genetic parents would differ as a function of the method of killing. The results provided clear support for both hypotheses.

In the current study, children under the age of 5 years are roughly eight times more likely to be killed by a stepfather than by a genetic father and almost three times more likely to be killed by a stepmother than by a genetic mother. A higher percentage of filicides committed by stepfathers (relative to genetic fathers) are perpetrated by beating and bludgeoning. Genetic fathers, in contrast, are more likely than stepfathers to shoot or asphyxiate their wards. A higher percentage of filicides committed by stepmothers (relative to genetic mothers) are perpetrated by beating and bludgeoning. Genetic mothers, in contrast, are more likely than stepmothers to asphyxiate their wards.

The current findings replicate and extend the work of Daly and Wilson (1994), which used national-level Canadian and British databases to investigate the differing filicide rates and the differing methods of filicide perpetrated by stepfathers and genetic fathers. The current study extends the work of Daly and Wilson (1994) by investigating whether motivational differences also might underlie differing methods of filicide committed by stepmothers and by genetic mothers. As hypothesized, stepmothers are more likely than genetic mothers to commit filicide by beating and bludgeoning, whereas genetic mothers are more likely than stepmothers to commit filicide by asphyxiation. These findings provide additional support for the hypothesis that there are psychological and motivational differences between stepparents and genetic parents that are revealed in the method of filicide (Daly & Wilson, 1988, 1994).

When a genetic parent continues to invest in a child after a stepparent becomes involved, the stepparent may perceive the investment of the genetic parent in the genetic parent's child as time, money, and effort that "should have" been invested in the stepparent or in a child that the stepparent shares genetically with the genetic parent. Feelings of bitterness, resentment, frustration, and anger may develop in the stepparent as a result. These feelings may be revealed in the method by which a stepparent commits filicide. Support for this hypothesis was documented by Daly and Wilson (1994) using national-level Canadian and British homicide databases and in the current study using a national-level United States homicide database. Having been replicated in three different national-level databases, the results are not readily attributable to features specific to any one of the samples. These cross-national replications instead suggest a core set of replicable findings. The current replication is particularly noteworthy because of national differences among the United States, Canada, and the United Kingdom along potentially relevant variables such as homicide rate, gun availability, and attitudes about violence and homicide (see, e.g., Daly & Wilson, 1988, 1998).

A limitation of the current research is that the FBI SHRs provide few details on each filicide. Several interesting questions therefore cannot be addressed using this database. For example, knowing where and how many times a stepparent (relative to a genetic parent) stabs, beats, or shoots a child might provide additional insight into motivational differences between stepparents and genetic parents within each method of killing. Genetic parents, for example, might be more likely than stepparents to stab their child in the heart (or surrounding area), producing a quicker death. Stepparents, in contrast, might be more likely than genetic parents to stab in nonlethal bodily locations, so as to prolong the child's pain and suffering.

Stepparents are more likely than genetic parents to beat a child to death, supporting the hypothesis of motivational differences. Alongside this key difference, however, is the finding that beating is the most common method of filicide used by both stepparents and genetic parents. One interpretation of this result is that filicidal genetic parents and filicidal stepparents share feelings of anger and rage. Such feelings may be required to beat a child to death. One way to better understand the nature of these feelings—and whether they might differ qualitatively for genetic parents and stepparents—is to investigate whether the beatings by stepparents and genetic parents differ qualitatively, in a way consistent with the hypothesized motivational differences. Stepparents more than genetic parents, for example, may commit filicide by beatings that are more brutal. The FBI SHR database does not provide the information needed to test this hypothesis. Future work could gain access to filicide databases in which more detail is provided in order to assess differences between stepparents and genetic parents in the level of brutality displayed for a given method of killing.

Genetic parents sometimes do kill their children, but the rate at which stepparents kill their stepchildren far exceeds the rate at which genetic parents commit filicide. The method by which a stepparent (relative to a genetic parent) commits filicide arguably reveals more negative feelings about stepchildren than about genetic children. From an evolutionary perspective, relatively more negative feelings about stepchildren may be "normal" (see, e.g., Daly & Wilson, 1988). The normality of these negative feelings does not justify filicide, of course. The recognition that these feelings are a normal part of stepparenting and stepparental psychology, however, may allow stepparents to communicate these feelings instead of killing the child.

This research may have clinical applications. Couples who are planning to cohabit or to marry and in which one or both members of the couple has children from a previous relationship might benefit from counseling that addresses the feelings of resentment and bitterness that can develop in stepparents. This counseling could occur before a couple cohabits or before the marriage occurs, with the potential benefit that stepparents and genetic parents have the opportunity to learn about what to expect and to discuss solutions to the most common problems. A stepparent and genetic parent could agree, for example, that a stepparent will inform the genetic parent when he or she is feeling particularly resentful about the stepchildren. These feelings could be addressed within the couple, and perhaps brought to the attention of a family counselor. Although the current and previous research is not detailed enough to allow us to generate clear clinical implications, what is clear is that knowing more about parental psychology and the motivations for filicide will help reduce the risk of filicide by stepparents and by genetic parents.

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