Family Structure and Adolescent Victimization in Finland: Investigating the Stepfamily as a Source of Risk

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Sociological research on family structure suggests that living in a stepfamily may constitute an important risk factor for a number of outcomes of adolescent well-being. In our data, the prevalence of violent victimization is significantly higher among children from stepfamilies than among those living in either single parent or intact two-parent families. In an effort to develop an explanation for the stepfamily effect, we draw on two theoretical perspectives, the stress-conflict model and evolutionary psychology. The mediating variables derived from the stress-conflict model explain a meaningful share of the increased risk associated with stepfamily status. By contrast, our research finds little support for the assumptions of evolutionary psychology.

Key words: Victimization, violence, step-families, Finland, adolescence

Introduction

Social scientific literature features an impressive collection of studies focusing on the link between family characteristics and juvenile offending (Farrington 2002; Kierkus & Baer 2002; Rebellon 2002; Rutter & Giller 1983). By comparison, a relatively small number of studies have addressed the family context of adolescent victimization (Schreck & Fisher 2004, 1022). This state of affairs is particularly regrettable in light of the fact that the risk of victimization tends to peak at this stage of the life course (Finkelhor & Asdigian 1996; Woodward & Ferguson 2000). Experiencing violent victimization during adolescence is also likely to entail harmful long-term consequences for psychological well-being and socioeconomic attainment (King et al. 2004; Macmillan 2000; Hagan & Foster 2001).

Prior literature on adolescent victimization does not portray a clear picture regarding the salience of family structure. In her analysis of a national sample of Americans at ages 12-17, Lauritsen (2003) found a strong relationship between family structure and the risk of violent victimization: the rate of non-lethal victimization was about 50 percent higher among youth living in single-parent families than among those living with two parents. On the other hand, studies by Esbensen, Huizinga and Menard (1999) and Bjarnason, Sigurdardottir and Thorlindsson (1999) have failed to establish meaningful associations between adolescent victimization and several family characteristics, including family structure.

A possible explanation for the weak family effects in Esbensen et al. (1999) may have to do with the analytical approach adhering to the stepwise regression procedure. Eliminating predictors based on their impact on model fit (Menard 1995) is hardly the optimal way of detecting family effects. To the extent that variables like family structure and parental monitoring influence adolescent victimization, we would expect these effects to be mediated by more proximate lifestyle factors, such as alcohol use and spending time in unsupervised peer groups.

Consistent with this argument, Lauritsen, Sampson and Laub (1991) found that living with two parents significantly reduced the risk of violent victimization among adolescents,

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and that much of this effect is mediated by involvement in a delinquent lifestyle. In a recent study by Schreck and Fisher (2004), the family context is conceptualized as a factor expected to influence the children's risk of victimization mainly through its effect on their routine activities. Unfortunately, focusing on more qualitative dimensions, such as attachment to parents and family climate, their research does not feature structural measures of the family context.

Inconsistent and weak findings regarding the effect of family structure may also stem from inappropriate conceptualization. In order to capture the full spectrum of covariation between adolescent outcomes and family structure, it is necessary to move beyond the simple dichotomy between one-parent and two-parent families (Hoffman & Johnson 1998). Research on stepfamilies suggests that not all two-parent families are equal. According to Kierkus and Baer (2002), children from stepfamilies are twice more likely to run away from home than their peers in single-parent families, and three times more likely than children from families with both biological parents. Living in a stepfamily has also been linked to elevated levels of teen pregnancy (Vikat et al. 2002) and drug use (Hoffman & Johnson 1998).

Prior research suggests that stepchildren may experience higher rates of violent victimization. The prevalence of both sexual abuse (Sariola & Uutela 1996) and infanticide (Daly & Wilson 2001) has been found to be exceptionally high in this population. In direct relevance to the present study, several studies report that living in a stepfamily is a robust risk factor for adolescent victimization (Finkelhor & Asdigian 1996; King et al. 2004; Turner et al. 2006).

Theoretical framework

The purpose of our research is to examine the family structure as a risk and protective factor for adolescent victimization. Consistent with the routine activities theory (M. Felson 1998), we assume that patterns of time use outside the household influence the risk of victimization. Adolescents who spend a large amount of time involved in high-risk activities, such as drinking, in the absence of capable guardians, are at an elevated risk of violent victimization. For most children, the family context is the primary source of socialization and a major agent of social control. The capacity of the parents to monitor and influence the lifestyle patterns of their adolescent children is likely to depend on a number of factors, including family structure.

Prior research suggests that children may have difficulties accepting stepparents as legitimate sources of authority (Pink & Smith-Wampler 1995; Giles-Sims & Crosbie-Burnett 1989; Coleman et al. 2000). Children may also resent the resident biological parent for introducing a stepparent in the household. It seems therefore plausible that, in order to reduce the level of conflict within the household – and their personal feelings of guilt – parents in stepfamilies may give their children more independence and power than parents in other families. In other words, sociological family literature suggests that children in stepfamilies may be monitored less carefully with respect to their behavior outside the family context (Cherlin & Furstenberg 1994; Coleman et al. 2000).

On the other hand, drawing on the principles of evolutionary psychology, Daly and Wilson (1988; 1994; 1996; 1997) have published a large number of studies supporting the conclusion that children are more likely to be abused, mistreated and killed by their stepparents than by their biological parents. Their theory assumes that the psychological processes resulting in such outcomes reflect nepotistic behavior typical of most species that have survived the process of Darwinian selection (Daly & Wilson 1997, 53). According to Daly and Wilson (1996, 17), "the extensive literature is unanimous that [step relationships] are, on average, more distant, more conflictual, and less-satisfying than the corresponding genetic parent-child relationships".

In our research, we use two complementary angles to address the empirical implications of these two theories of the stepfamily effect. First, the evolutionary perspective predicts that children from stepfamilies are more likely to be victimized by a family member. We examine this hypothesis by disaggregating the data on victimization by victim-offender relationship and by the location of the incident. Second, the stress-conflict model predicts that children from stepfamilies are more likely to be victimized because, with more independence in their patterns of time-use, their routine activities are more likely to involve exposure to motivated offenders in the absence of capable guardians. To evaluate the validity of this latter hypothesis, we estimate multivariate models featuring measures of relevant lifestyle characteristics. The stress-conflict theory predicts that controlling for the differences in lifestyle-related risk factors will attenuate or even eradicate the stepfamily effect on victimization. As the final step of the multivariate analysis, we estimate the influence of family-based risk factors net of the lifestyle characteristics. The hypothesis derived from evolutionary psychology predicts that much of the stepfamily effects stems from a direct association between violent victimization and the quality of social interactions within the family.

Data and methods

Our data are based on a survey of adolescents attending the ninth grade in the City of Helsinki school district in Finland. The survey was carried out in 2002 and includes 1 135 respondents from 18 randomly selected schools throughout the city. A total of 1,412 students were asked to fill out the questionnaire anonymously during a regular class session. Thus, the response rate for the survey equals 81 %. Most of the respondents (88 %) were 15-years old; the remaining 12 % are divided equally between those at ages 14 or 16. Given our interest in family structure, we limit our focus on those respondents who reside with both original parents, a single parent, or in a stepfamily (N=1,088). As there are only 16 respondents in this sample living with a stepmother, we group stepfamilies of each variety under a single category. Consistent with this decision, we also treat one-parent families in a gender-aggregated manner (11 % of the respondents from single-parent families live with their father).

Dependent variables

Our research seeks to examine two issues: (1) are children from stepfamilies more likely to be victimized by a family member? (2) Is the stepfamily effect on adolescent victimization mediated (mainly) by routine activities outside the family context, or is it mediated (mainly) by factors internal to the family context? We address the first question by examining the domestic nature of victimizations across the three categories of family structure. This set of analyses is limited to those who reported at least one incident of victimization within a 12-month recall period. We tackle the second question with the help of mediating variables reflecting both family based and lifestyle-specific risk factors. We use a general measure of violent victimization as the dependent variable in these multivariate models.

General measure of violent victimization. Our basic measure of violent victimization reflects the experience of any one of the following incidents within a recall period of 12 months: robbery, sexual assault, assault resulting in bodily harm (no weapon), and assault resulting in bodily harm with the use of a weapon. Given the relatively low prevalence (13.1 %) of such victimizations in the sample, we treat this measure as a dichotomy

Figure 1 describes variation in this outcome across the three types of family structure. Consistent with our theoretical expectation, these statistics indicate that violent victimization is more prevalent among adolescents from stepfamilies. For boys, living in a stepfamily is associated with a risk that is more than three times higher than among adolescents from intact two-parent families. By comparison, the difference between boys from single parent families and nuclear families is only four percentage points. Girls from stepfamilies are also significantly more likely to have been victimized than their counterparts in the other two categories of family structure. In Figure 1, each comparison featuring a stepfamily category is associated with a difference that is statistically significant ($p < .01, \chi^2$).

Characteristics of violence. Our research is also concerned with the characteristics of the victimizations. Specifically, we are interested in the hypothesis that children from stepfamilies are more likely to be victimized by a member of their own family. In the survey instrument, the relationship between the victim and the offender is defined in terms of three categories: "stranger", "knew by sight only", and "knew by name". Obviously these categories do not directly indicate if the offender was a member of the family or the same household. However, it is clear that a family member would most likely be "known by name". To complement this measure of the victim-offender relationship, we attend to the place of victimization. If children from stepfamilies are more likely to be victimized within the family, we would expect it to manifest in higher rates of domestic victimizations. Accordingly, our final measure of victimization indicates the percentage of victimizations taking place at home.

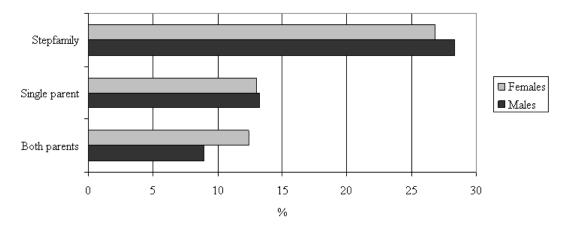


Figure 1. Family structure and the 12-month prevelance of violent victimization by gender (%).

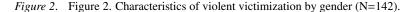
As explained above, the survey asks questions about victimizations under four categories of violence. Within each category, an affirmative answer to the first question generates a series of follow-up questions about the characteristics of the most recent incident. Our measures of victimization characteristics are aggregated on the basis of these categoryspecific questions. As such, they indicate if the most recent victimization in any one of the four categories: (a) took place at home and (b) involved an offender known to the victim by name.

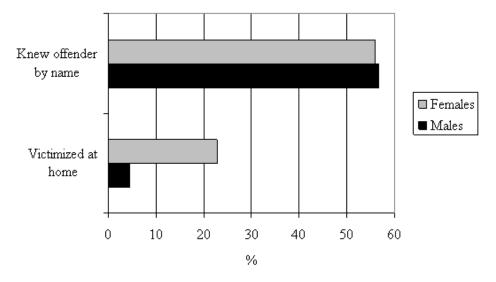
Figure 2 presents information about these two variables broken down by gender. Note that these data are limited to those who report having experienced at least one violent victimization within a 12-month period (N = 142). More than 50 percent of them had experienced at least one such incident involving an offender they had known by name. The findings concerning the location of the incident vary by gender: more than one-in-five females report an incident of domestic victimization; fewer than 5 percent of the males do. This difference reflects the higher prevalence of sexual victimization among girls.

Mediating variables

We use five variables to measure lifestyle characteristics associated with an elevated risk of violent victimization: frequency of *alcohol use*, experimentation with drugs, involvement in *delinquency*, the amount of *spending money*, and watching films with pornographic content. The choice of our last indicator is not based on the assumption that watching pornographic movies would in itself constitute a high-risk activity. Instead, for lack of a better alternative, we use this information as an indirect measure of parental supervision. Watching X-rated movies is an activity that teenagers would not typically do with their parents or other conventional adults. Ability to view content of this description requires access to a reasonably private place for an extended period of time. The use of alcohol and drugs are well-established correlates of violent victimization (Abbey et al. 2001; R. B. Felson & Burchfield 2004). Involvement in delinquency is another strong and consistent predictor of adolescent victimization (Pedersen 2001; Lauritsen et al. 1991). The variable measuring the amount of money available for discretionary spending reflects the assumption (derived from the stressconflict model) that parents in stepfamilies may be more likely to give in to the demands of their adolescent children. Among other outcomes, such tendency may result in more generous allowances, making it easier for the children to spend time in high-risk settings.

Our research features three variables measuring intrafamilial risk factors of adolescent victimization. First, the evolutionary theory argues that stepparents are more likely to assault their children than biological parents. To examine the validity of this explanation for the stepfamily effect, we estimate the effect of family structure controlling for the amount of violence perpetrated by parents. The relevant measure is based on a set of eight questions, each of which describes a relatively concrete act of violence, such as "slapping", "grabbing hard", and "hitting with a fist". For each item, the respondent is asked to report how frequently the given form of violence has occurred within the past 12 months. The 5-





point response scale varies between "never" and "more than 12 times". We have summarized these items into a single scale ($\alpha = .86$) and divided it into three categories reflecting the distribution of the responses. The lowest category consists of those who have not experienced a single incident of parental violence within the recall period. The second category includes those who report that behavior under one category of parental violence has occurred at least once. The rest of the sample is grouped in the third category.

The number of younger siblings is our second familyspecific risk factor. As discussed above, it is not uncommon for a stepfamily unit to also include "our" children, i.e., children conceived by the original parent and the stepparent. This demographic fact explains why stepchildren are more likely to have younger siblings. For example, in our data, compared to those living in an intact two-parent family, children from stepfamilies are nearly five times as likely to have more than two younger siblings. 47 % of the children from nuclear families did not have a younger sibling. Among stepchildren the corresponding share is 31 %. These differences may have important consequences for parental monitoring and the level of conflict within the family.

Third, our measure of *family conflict* is based on ten questions probing the level of discord, disputes, and hurtfulness within the family. On a Likert-scale ranging from "never" to "very frequently", respondents were asked to report the frequency of "disagreements", "shouting", and "insults", etc. within the family. The internal consistency of the scale is rather high (α = .85), which suggests that it reflects a onedimensional characteristic. For the purposes of the analysis, we have coded this construct into four categories of comparable size.

Descriptive statistics

To examine the empirical plausibility of this set of mediating variables, Table 1 describes how their values are distributed across the three categories of family structure. Most of them appear to be related to the independent variable in a manner that corresponds to their theoretical justification. Adolescents from stepfamilies are more likely to experiment with drugs, drink alcohol on a weekly basis, be involved in four or more varieties of delinquency, have viewed a pornographic film (at least once), have more than the average amount of spending money, experience parental violence, and report "very frequent" discord within the family. Finally, as established earlier, stepchildren are more likely to live with multiple younger siblings. Informed by our theoretical framework, we use these variables to examine the sources of the stepfamily effect on violent victimization.

Methods of analysis

We start the analysis by disaggregating characteristics of violent victimization by family type. These analyses are based on simple crosstabulations. We use the χ^2 -test to gauge the statistical significance of these findings. Given the di-

Table 1

The Distribution of Mediating Variables by Family Structure (%).

Mediating	Intact	Single	Step-
variables	two-parent	parent	family
Used drugs	10,4	17,4	22,4
Drinking			
Never	23,6	17,7	14,7
1-2 times	23,2	24,1	21,6
3-12 times	29,7	26,6	28,4
Weekly	23,5	31,6	35,3
Delinquency			
No delinquency	73,8	70,2	61,2
One variety	14,9	17,0	17,2
2-3 varieties	8,3	8,5	8,6
More than three	3,0	4,3	12,9
Watched porn. films			
Never	71,4	63,8	56,9
1-2 times	15,7	20,9	29,3
3 times or more	12,9	15,2	13,8
Amount of spending money			
Below average	30,3	29,6	19,3
Average	40,4	43,4	38,6
Above average	29,4	27,0	42,1
Parental violence			
Never	72,6	69,1	72,4
Once	14,5	16,7	9,5
Twice or more	12,9	14,2	18,1
Conflicts within the family			
Few or none	20,4	23,4	14,7
Some	30,7	35,8	29,3
Frequent	26,7	22,7	25,9
Very frequent	22,2	18,1	30,2
Number of younger siblings			
0	46,5	45,0	31,0
1	35,1	37,9	23,3
2	14,6	10,6	27,6
3+	3,8	6,4	18,1
N	690	282	116

chotomous nature of the dependent variable, we use binomial logistic regression to estimate the multivariate models. Instead of logistic regression coefficients, we use odds ratios to report the magnitude of these effects.

Findings

We know from Figure 1 that living in a stepfamily is associated with a higher risk of violent victimization in this sample of Finnish adolescents. Is this finding a function of differences in violence of a particular kind or is the composition of reported victimizations similar irrespective of family structure? According to the hypothesis derived from evolutionary psychology, children from stepfamilies are more likely to experience violence at home. By contrast, the stress-conflict model argues that the increased amount of violence stems from patterns of time use outside the family setting. Focusing on adolescents reporting at least one incident of violence within a year, Figure 3 presents data on the relevant incident characteristics broken down by the victim's family type.

The black bar in this chart describes the percentage of victimized respondents reporting that the most recent victimization - under any one of the four categories of violence - took place at home. Contrary to the evolutionary theory, juveniles from stepfamilies are less likely than others to report a domestic victimization: only 3 percent compared to almost 18 percent among children from intact two-parent families. (This difference meets the 10 % level of statistical significance in a one-tailed χ^2 -test; a fair standard given the low number of cases in the analysis.) The second set of bars presented in Figure 3 indicates the percentage of incidents involving an offender who was known to the victim by name. Findings pertaining to this characteristic provide further evidence for the conclusion that the increased amount of victimization associated with stepfamily status may not be a function of domestic violence. Adolescents from stepfamilies are less likely than their peers in other families to have known the offender by name. This difference is also statistically significant (p < .10) in a one-tailed test.

In general, the findings presented in Figure 3 are consistent with the stress-conflict account which argues that the increased risk associated with stepfamily status is a function of activities taking place outside the realm of domesticity. In the next part of the analysis, we address this theory more directly by estimating a series of multivariate models. The baseline model features the measure of family structure as the independent variable, with sex and age as the only control variables. In the second step, we add the mediating variables derived from the stress-conflict model – the five measures of lifestyle-related risk factors. We expect a significant reduction in the stepfamily effect as a result. As the final step, we

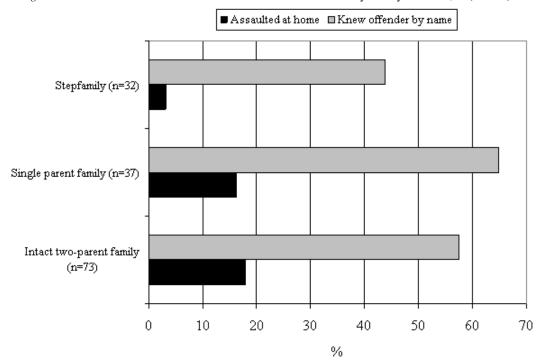


Figure 3. Characteristics of the Most Recent Violent Victimizations by Family Structure, % (N=142).

add the variables measuring family-based risk factors. The purpose of this model is to examine if any of the remaining stepfamily effect can be explained in terms of family characteristics – independent of lifestyle factors.

The first model in Table 2 (Model 1) presents the effects of family structure controlling for the respondents' age and sex. In light of these statistics, living in a stepfamily triples the odds of violent victimization. The purpose of Model 2 is to find if this effect has to do with differences in patterns of time use and other lifestyle predictors of victimization. As a result of adding variables measuring drug and alcohol use, delinquent behavior, time spent watching pornographic movies, and the amount of discretionary spending money, the risk associated with stepfamily status is reduced by 24 %. In other words, this set of lifestyle factors explains about one quarter of the baseline stepfamily effect. Although this is a meaningful reduction, most of the stepfamily effect remains intact.

Following the logic of the hypothesis derived from evolutionary psychology, the purpose of Model 3 is to examine if some of the remaining stepfamily effect is a direct function of family based risk factors. Each theoretical model engaged in our research assumes that adolescents in stepfamilies tend to regard their families as less cohesive and more frictional than juveniles from nuclear or single parent families. The stress-conflict model argues that such conditions may result in arrangements that make it easier for the children to participate in high-risk activities. In contrast, the evolutionary model argues that a major share of the stepfamily effect can be traced directly to the amount of conflict within the residential unit. The latter claim implies that variables measuring family-based risk factors should mediate the relationship between family structure and violent victimization *net of lifestyle characteristics*.

This hypothesis is tested in Model 3 by adding three variables: parental violence, family conflict, and the number of younger siblings. Adding this set of characteristics improves the explanatory power of the model. Adolescents reporting multiple incidents of parental violence and "very frequent" conflict within the family are more likely to have been victimized than those without such characteristics. However, controlling for these factors has very little impact (a reduction of less than 7 %) on the odds ratio associated with stepfamily status. This finding contradicts the explanation suggested by the evolutionary model. 24

Multivariate logistic regression models of violent victimization.

	Model 1	Model 2	Model 3
Age	1.379	1.127	0.994
Sex (female)	1.202	2.285*	1.844*
Family structure			
Intact 2-parent	1.000	1.000	1.000
Single parent	1.197	1.031	1.098
Stepfamily	3.121*	2.385*	2.223*
Used drugs (12 mo.)		2.151*	2.265*
Drinking (12 mo.)			
Never		1.000	1.000
1-2 times		1.427	1.322
3-12 times		1.313	1.223
Weekly		1.485	1.367
Delinquency			
None		1.000	1.000
One variety		1.253	1.172
2-3 varieties		2.699*	2.304*
More than three		3.365*	2.460*
Watched pornographic.			
films			
Never		1.000	1.000
1-2 times		1.593	1.569
3 times or more		2.488*	2.502*
Amount of spending			
money			
Below average		1.000	1.000
Average		0.913	0.901
Above average		0.983	0.975
Parental violence			
Never			1.000
Once			1.161
Twice or more			1.802*
Conflicts within			
the family			
Few or none			1.000
Some			1.256
Frequent			1.490
Very frequent			2.704*
Younger siblings			
No			1.000
One			0.997
Two			0.923
Three or more			1.760
R^2 (Nagelkerke)	.038	.153	.195
*p < .05			

Discussion

The data on Finnish adolescents suggest that living in a stepfamily constitutes a significant risk factor for violent victimization. This finding coheres with a number of prior studies in the stepfamily literature. Our research builds on two theoretical perspectives in an effort shed light on the causal processes responsible for the stepfamily effect on youth victimization. According to the stress-conflict model, the process of family reconstitution is likely to generate friction between family members. As a way of managing the level of conflict, some parents in stepfamilies may end up giving their children more independence than they would under less stressful circumstances. As a result of reduced levels of monitoring, children from stepfamilies are more likely to engage in behaviors characterized by an elevated risk of violent victimization.

As an alternative account of the stepfamily effect, our research also considers the perspective suggested by evolutionary psychology. In agreement with the stress-conflict model, the evolutionary theory assumes that stepfamilies are more likely to experience problems with cohesion and authority. However, this literature also suggests that a major share of the increased violence against stepchildren takes place at home. By contrast, the stress-conflict predicts that the situational correlates of the stepfamily effect are located outside the family context.

The findings from our research are more consistent with the explanation offered by the stress-conflict model. First, we disaggregated the data on violent incidents by two characteristics: the victim-offender relationship and the location of the incident. Among the adolescents who had experienced at least one violent victimization within a 12-month recall period, those from stepfamilies were less likely to report a domestic incident and more likely to have been victimized by someone they had not know by name. Second, we compared the explanatory power of the two theories by estimating a set of multivariate models. We found that the mediating variables derived from the stress-conflict model explain a meaningful share of the original stepfamily effect. Children from stepfamilies are more likely to use alcohol and drugs, and they are more likely to engage in criminal behavior. The introduction of family-based risk factors in the multivariate model did not result in a significant further reduction of the stepfamily effect. This implies that problems within the family do not explain the relationship between family structure and the risk of victimization over and above their impact on routine activities outside the household.

Our research does not constitute an ideal test of the hypotheses derived from evolutionary psychology. The research by Daly and Wilson, for example, is focused on violence against infants and small children. It is possible that the life-time incidence of child abuse is significantly higher among the stepchildren in our sample. According to Wilson and Daly (1987, 226-228), the relative risk of child abuse against stepchildren declines with age. The effects of maltreatment in early childhood are likely to exert major influence on adolescent outcomes and beyond (Fergusson & Lynskey 1997; Woodward & Ferguson 2000). It is possible that the processes described in evolutionary psychology could help explain why adolescent from stepfamilies tend to be more likely to engage in behaviors that make them likely targets of violent victimization. The absence of measures for early childhood maltreatment is an obvious limitation with our study. It is also important to acknowledge that our research would have benefited from more direct measures of intra-familial violence.

Most of the relationship between stepfamily status and violent victimization remained unexplained in our multivariate analysis. It is likely that the situation would improve with more accurate measures of the mediating variables (e.g., styles of parenting) as well as a more nuanced conceptualization of family structure. Future research would also benefit from considering alternative theoretical perspectives. For example, it is conceivable that at least some of the relationship between family structure and adolescent victimization may be a matter of selection rather causation (Cleveland et al. 2000).

Findings from our research are more consistent with the conclusion that problems at home do not directly explain why adolescents from stepfamilies experience more violence. It seems that the special set of challenges facing stepfamilies may sometimes result in practices that compromise the safety of the children *outside the family setting*. The confirmation of this conclusion requires further research about the intervening processes, preferably with longitudinal data.

However, combined with the body of evidence from prior studies, our research provides strong support for the general conclusion that stepchildren are over-represented in several categories of antisocial behavior and psycho-social risk. Given that the number of children growing up in reconstituted families is likely to increase rather than decline this is an issue that deserves to be addressed more vigorously in social policy.

Biographical note. Jukka Savolainen is a Speer Visiting Professor of Finnish Studies at the University of Minnesota. His recent research has appeared in International Library of Criminology, Homicide Studies, and Crime Prevention and Community Safety.

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