

Political Violence and Child Adjustment in Northern Ireland: Testing Pathways in a Social–Ecological Model Including Single- and Two-Parent Families

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Moving beyond simply documenting that political violence negatively impacts children, we tested a social–ecological hypothesis for relations between political violence and child outcomes. Participants were 700 mother–child ($M = 12.1$ years, $SD = 1.8$) dyads from 18 working-class, socially deprived areas in Belfast, Northern Ireland, including single- and two-parent families. Sectarian community violence was associated with elevated family conflict and children’s reduced security about multiple aspects of their social environment (i.e., family, parent–child relations, and community), with links to child adjustment problems and reductions in prosocial behavior. By comparison, and consistent with expectations, links with negative family processes, child regulatory problems, and child outcomes were less consistent for nonsectarian community violence. Support was found for a social–ecological model for relations between political violence and child outcomes among both single- and two-parent families, with evidence that emotional security and adjustment problems were more negatively affected in single-parent families. The implications for understanding social ecologies of political violence and children’s functioning are discussed.

The effects on children of political violence are matters of international concern. However, repeatedly demonstrating that sectarian conflict and political violence have many negative effects on children has reached a point of diminishing returns. Many studies proceed as if political violence occurs in a social vacuum, meaning that simply demonstrating links between political violence and child adjustment problems is sufficient, without regard to the investigation of the mechanisms underlying the effects on children (Dawes & Cairns, 1998). A more complex level of analysis is required to truly understand the impact and implications of political violence for children. Accordingly, a second generation of research on political violence and children is needed to advance process-oriented understanding of how and why, for whom and when, these contexts are associated with adjustment problems in children.

Relations between political violence and child development are unlikely to be adequately understood simply in terms of a political, military, or related “macrosystem” level of analysis. Consistent with a social ecological perspective (e.g., Bronfenbrenner, 1979; Cicchetti & Lynch, 1993; Lovell & Cummings, 2001), effects on children are hypothesized to be more fully explained by accounting for the effects of associated changes in the communities (i.e., the exosystem), families (i.e., the microsystem), and other social contexts in which children live, as well as in children’s psychological processes (i.e., ontogenic development) (Cummings, Goeke-Morey, Schermerhorn, Merrilees, & Cairns, 2009). However, process-oriented studies of relations between contexts of political violence and child development are infrequent, particularly investigations that include study of the psychological factors related to the effects of political violence exposure on children. Moreover, although studies in this area are intriguing in demonstrating the risk of war, terrorism, and political violence for child adjustment, approaches often lack cogent theoretical and empirical bases (Cairns, 2001). This study is directed towards addressing these gaps in understanding bases for relations between political violence and child development.

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Political Violence in Northern Ireland

The focus of this research is on relations between political violence and child adjustment in Northern Ireland (Cairns & Darby, 1998), adopting a social–ecological model that includes family and community factors, as well as child self-regulatory

processes. With regard to the context for political violence in Northern Ireland, Republicans or Nationalists (i.e., generally from Catholic community backgrounds) contend for the reunification of Northern Ireland with the Republic of Ireland, whereas Unionists or Loyalists (i.e., generally from Protestant community backgrounds) argue that Northern Ireland should remain a part of the United Kingdom. Although the roots of this conflict can be traced back for centuries, contemporary studies focus on the 30-year period (1968–1998) of ongoing violence known colloquially as “the Troubles.” The Troubles began in the late 1960s following the emergence of civil rights campaigns that aimed to remove state-driven discrimination around social housing, access to employment, policing, and voting rights. Although these campaigns began peaceably and gained some limited intercommunity support, they were eventually undermined by repressive policing, the re-emergence of the Irish Republican Army, and the reformation of loyalist paramilitary militias. The upsurge in intercommunity violence led to the collapse of the Northern Ireland State and the deployment of the British Army.

More than 3,500 people have been killed as a result of the political violence in Northern Ireland since the 1960s. Among combatant groups, 57% were killed by Republicans, 30% by Loyalists, and 12% by the security forces. In addition, the majority of deaths took place in areas that were highly segregated by religion and among the most socially deprived parts of Northern Ireland. It is estimated that around 30,000 people were maimed in Northern Ireland, tens of thousands were forced from their homes, and \$100 million of damage was caused to property and business (Shirlow & Murtagh, 2006). Several attempts were made to achieve political solutions between 1974 and 1994 (Initiative on Conflict Resolution and Ethnicity [INCORE], 1995), which resulted in a ceasefire between the main paramilitary groups in 1994. The Belfast/Good Friday Agreement in 1998 that had followed the ceasefire was welcomed with widespread support. The Belfast Agreement eventually led to the reformation of the Northern Ireland Assembly, intercommunity power sharing, and the endorsement of cultural rights.

Despite these signs of progress, many neighborhoods and schools in Belfast remain highly segregated by ethnicity (i.e., Catholic or Protestant). Although Northern Ireland has experienced declines in more extreme forms of violence, conflict and political disturbances persist (Shirlow & McEvoy, 2008), including substantial incidences of multiple forms of sectarian violence and conflict reported during the period of this study (Police Service of Northern Ireland, Central Statistics Branch, Operational Support Department, 2006–2007).

A Social–Ecological Hypothesis for Relations between Political Violence and Children

The social–ecological hypothesis posits that children’s exposure to political violence affects them through multiple levels of individual and societal functioning. Thus, assessing multiple levels of the social ecology and children’s psychological processes is expected to advance understanding of bases for relations between political violence and child development (e.g., Bronfenbrenner, 1979; Cicchetti & Lynch, 1993; Lynch & Cicchetti, 1998; see Cummings et al., 2009). Social–ecological contexts consist of nested environments of differing degrees of proximity to the

developing child, including the exosystem, the microsystem, regulatory processes, and child outcomes.

The scant published research supports this approach for understanding child outcomes in terms of associated changes in community, family, and child-related processes of functioning (Ajdukovic & Biruski, 2008; Joshi & O’Donnell, 2003; Sagi-Schwartz, 2008; Shaw, 2003). For example, Gibson (1989) found that, among interpersonal factors, the family was the most consistent mediator of the impact of stress on children in situations of political violence, including a supportive and harmonious family environment, parents’ displays of concern for children, and parents’ serving as sources of self-direction for children in everyday tasks. In their review, Elbedour, ten-Bensel, and Bastien (1993) concluded that the impact of political violence on children occurred through a dynamic interaction among multiple processes, including the breakdown of community, the disruption of family, and the psychological characteristics of children. Punamäki (2001) reported that multiple factors were related to children’s positive developmental outcomes during a period of intense political violence in Chile. Children’s positive mental health outcomes and social competencies were related to a family atmosphere of low conflict and high cohesion.

Reflecting a more distal level of the environment, the exosystem includes elements associated with the community, whereas the microsystem includes more proximal influences, such as the family. Community violence is linked with child externalizing (Attar & Guerra, 1994; Jaycox et al., 2002) and emotional problems (Gorman-Smith & Tolan, 1998; Singer, Anglin, Song, & Lunghofer, 1995). Interrelations between the community and the family in effects on child development are also reported (Kaslow, 2001; Proctor, 2006; Shamai, Kimhi, & Enosh, 2007). For example, domestic and community violence have been linked as influences on child development (Cooley, Turner, & Beidel, 1995; Margolin & Gordis, 2000; Martinez & Richters, 1993; Richters & Martinez, 1993). Even when the other factor is controlled, community (Linares et al., 2001; Lynch, 2003) and family violence (Muller, Goebel-Fabbri, Diamond, & Dinklage, 2000) each negatively affect children’s psychological adjustment.

Children’s regulatory processes are also highlighted in our social–ecological model (Cicchetti & Lynch, 1993; Lynch & Cicchetti, 1998; see Cummings et al., 2009). According to emotional security theory (Cummings & Davies, 1996), children’s emotional security is relevant to the impact of multiple levels of the social ecology on child adjustment (Waters & Cummings, 2000). On the basis of the notion that protection, safety, and security are core concerns for children, emotional security is hypothesized as a goal around which their functioning is regulated, for example, with regard to parent–child relations (Davies, Harold, Goeke-Morey & Cummings, 2002) or the family as a whole (Forman & Davies, 2005).

Extending demonstrations of the significance to children’s functioning of emotional security in family contexts (Waters & Cummings, 2000), a new contribution is the study of the role of children’s emotional security about community in their functioning. For example, Richters and Martinez (1993) reported that intracommunity violence was related to children’s adaptational failure when such adversities reduced the quality of children’s perceptions of the stability and safety of their homes (Gorman-Smith & Tolan, 1998; Lynch & Cicchetti, 2002).

A Social–Ecological Perspective: Political Violence and Children in Northern Ireland

The factors, processes, and pathways to be tested are necessarily selective, informed by past work, including studies of children and families in Northern Ireland (e.g., Cairns, 1987; Cairns & Mercer, 1984; Fay, Morrissey, Smyth, & Wong, 1999; Jarman & O'Halloran, 2000; Muldoon, 2004; Niens, Cairns, & Hewstone, 2003; Smyth & Scott, 2000). Community influences in contexts of political violence can be conceptualized as consisting of sectarian and nonsectarian antisocial behavior. Sectarian community antisocial behavior reflects conflict and violence between ethnic, religious, or cultural groups, in this instance Catholics and Protestants. Sectarian antisocial behavior consists of local levels of conflict and violence motivated by political strife. By contrast, nonsectarian antisocial behavior refers to "ordinary crime" and/or antisocial behavior, found in any community, regardless of political context, not specifically linked with conflict among ethnic, religious, or cultural groups.

Both sectarian and nonsectarian antisocial behaviors in communities are likely to have negative implications for the functioning of families and children. At the same time, the meaning of the two classes of behaviors for families and children may differ significantly (Cummings et al., 2009). Sectarian antisocial behavior may be more closely linked with insecurity in the sense of being associated with the individual's identity, that is, sectarian violence is directed toward people like oneself. Sectarian violence poses a potentially greater threat to intercommunity relations and challenges the integrity of the political system and social order, pertinent to the emotional security of both adults and children (MacGinty, Muldoon, & Ferguson, 2007). At the same time, nonsectarian antisocial behavior surely also poses a significant threat to the safety and security of families and children in these communities (Shirlow & Murtagh, 2006). Although bases exist for contending that distinctions between sectarian and nonsectarian community violence are pertinent to understanding child development (Cummings et al., 2009), empirical evidence regarding the relative effects of sectarian and nonsectarian community violence is scant.

Tests of the Effects of Sectarian and Nonsectarian Antisocial Behaviors in Two-Parent Families in Northern Ireland

Gaps in instrument development for making distinctions between sectarian and nonsectarian antisocial behaviors have limited study in this area. Recently, we have advanced new measures for assessing distinctions between these two classes of behaviors in Northern Ireland (Goeke-Morey et al., 2009). On the basis of these measures, in a recent study of two-parent families in Belfast, Cummings et al. (in press) found support for social–ecological explanations for relations between political violence and child development in Northern Ireland. Pathways of influence on child development through family and child regulatory processes of emotional security were identified. Using family and emotional security measures appropriate to the study of two-parent families, we found that, in comparison with nonsectarian antisocial behaviors, sectarian antisocial behaviors were more closely linked with marital conflict, low parental monitoring, and children's emotional

insecurity about the marital relationship and the community. These family and child psychological processes, in turn, related to child adjustment, including internalizing and externalizing problems.

Thus, multiple family systems, including marital conflict and parenting, were identified as contributing to pathways for the effects of sectarian community violence on children, with children's emotional security also contributing to explanation. In summary, with regard to relations between political violence and children, multiple pathways from politically motivated community antisocial behavior in Northern Ireland to internalizing and externalizing problems in children were identified in two-parent families.

Extending Tests of the Social–Ecological Model to Include Multiple Family Structures

The present study extends tests of the social–ecological model in Northern Ireland to include all families, regardless of marital status. In order to have common bases for comparisons of single-parent and two-parent families, we sought to include variables that were comparable across these family structures. This study thus also broadens tests of the social–ecological model to include additional variables appropriate to multiple family structures, including family conflict and children's emotional security about parent–child and family relations. Relatedly, given the interest in positive as well as negative pathways in contexts of political violence (Cummings et al., 2009), we also studied positive family (i.e., family cohesion) and child (i.e., prosocial behavior) processes. The pathways tested, in order of the most distal to the most proximal to the child, included (a) sectarian antisocial behaviors and nonsectarian antisocial behaviors; (b) family conflict and cohesion; (c) emotional security about community, family, and parent–child relations; and (d) child outcomes, including prosocial behavior and adjustment problems.

A first question was whether the social–ecological model holds for a representative community sample in working-class Belfast, Northern Ireland. Many families in areas of high sectarian conflict are working-class single-parent families (Shirlow & Murtagh, 2006). Thus, excluding single-parent families would provide only a limited perspective on the pertinence of a social–ecological model for understanding relations between political violence and children. Relatedly, a second question was whether there were differences between single-parent and two-parent families in the operation of pathways in the social–ecological model.

Even in the absence of interparental conflict in single-parent homes, familywide conflict or cohesion may be influential in child development, with these family processes affected by community violence, and having implications for children's emotional security and adjustment. Consistent with emotional security theory, children's emotional security about parent–child and family relationships in both single-parent and two-parent families may underlie their functioning in contexts of political and community violence (Cummings & Davies, 1996; Forman & Davies, 2005). For example, associations have been reported between community violence and children's insecure emotional relationships with caregivers (Lynch & Cicchetti, 2002). Thus, the social–ecological model, including propositions based on emotional security theory, is expected to have explanatory value for both single-parent and two-parent families.

Testing the generalizability of the social–ecological model to multiple family forms and pathways through additional mediating variables (e.g., family conflict and cohesion, parent–child and family security, and child prosocial behavior) is an important direction for adequately testing the broader viability of the model. With regard to more specific predictions, the effects of community violence on child adjustment through multiple pathways of influence are expected to hold, regardless of the family structure. In many respects, the family and child are similarly vulnerable to threat and danger whether one or two parents are in the home. At the same time, in single-parent families, as compared with two-parent families, children’s processes of emotional insecurity might be expected to be more vulnerable to community violence because of reduced resources and therefore greater vulnerability to insecurity rooted in political and community stresses. For example, in the United States, parents in single-parent families have fewer monetary, time-related, and emotional and relationship resources, leaving parents with fewer emotional resources to devote to their children (McLanahan et al., 2003). As another example, children in single-parent families are, as a group, at greater risk for behavioral and emotional problems, substance use problems, child abuse and neglect, academic problems in school, and physical health problems (Amato, 2005; McLanahan & Sandefur, 1994).

Another new direction, and extending beyond issues addressed in Cummings et al. (in press), is the study of the effects of political conflict on emotional security about parent–child and family relations. The operation of positive influences in the study of political violence and children has only rarely been examined (Sagi-Schwartz, 2008), including the possible role of family cohesion and emotional security in elevating children’s positive social functioning, such as their prosocial behavior (McCoy, Cummings, & Davies, 2009). Family cohesion and emotional security beneficially affect children’s regulatory processes and adjustment (Davies et al., 2002) and therefore are expected to be related to reduced child adjustment problems and greater engagement by children in prosocial behavior.

This report thus tests a social–ecological model for relations between political violence and child adjustment and prosocial behavior in Northern Ireland for single- and two-parent families, mediated by family processes and children’s emotional insecurity. The central hypothesis was that family and child processes would serve as explanatory or mediating pathways for child adjustment problems associated with political violence, for both single- and two-parent families. Although many similarities were expected, if differences were found, greater vulnerability to negative effects of exposure to violence on emotional insecurity and adjustment problems was expected for single-parent than for two-parent families. Distinctive pathways were anticipated for sectarian and nonsectarian antisocial behaviors, respectively, with more negative effects on social–ecological processes of sectarian antisocial behaviors, given the hypothesized more threatening social meaning of politically motivated community violence in relation to non–politically motivated violence (see Cummings et al., in press). Emotional insecurity about family, parent–child relations, or community each was expected to be linked with greater adjustment problems (e.g., Cummings, Schermerhorn, Davies, Goeke-Morey, & Cummings, 2006). Finally, reflecting positive influences on child adjustment in challenging social contexts, family cohesion and elevated emotional security were expected to be related to reduced adjustment

problems and greater prosocial behavior (McCoy et al., 2009). Given the lack of precedence on which to base predictions, these tests of the social–ecological model were otherwise exploratory.

Method

Participants

Participants were 700 mother–child dyads ($N = 1,400$) from 18 working-class areas in Belfast, Northern Ireland. Children were preadolescents or adolescents ($M = 12.1$ years, $SD = 1.8$) and included boys ($n = 338$) and girls ($n = 358$). On the basis of stratified random sampling, families with at least one child between 8 and 15 years of age in the household were selected. We selected this age range because (a) the official census only tracks the presence of children under 16 years of age in households; (b) by 8 years of age, children are aware of the social distinctions being investigated (Cairns, 1987); and (c) children of age 10 years or older are most likely to be involved in sectarian-related violence, either as participants or as victims (see Cummings et al., 2009). For households with more than one child in the indicated age range, the youngest child interested in participating was selected. This choice was related to our interest in maximizing the period of time families could be followed before children finished schooling and potentially left home. About half of the participating children had an older sibling ($n = 323$; 46.4%), whereas the other children were oldest or only children in the family ($n = 373$; 53.6%).

Mothers, rather than fathers, were selected to participate for pragmatic reasons: (a) many families in working-class Belfast are led by single mothers; (b) mothers are more likely than fathers to be available for in-home surveys during the day; and (c) including many mothers and only a small number of fathers as parental reporters could pose considerable problems for data analysis. We included both single-parent and two-parent families, representing the nature of working-class families in Belfast and providing a unique opportunity for research on children’s exposure to violence to examine the moderating role of family structure on relations between children’s exposure to violence and children’s adjustment. Fully reflecting the status of families in terms of the presence of two adults, families in which mothers described themselves as either married ($n = 212$) or “living as married” ($n = 96$) were considered to be two-parent families ($n = 308$), and families in which mothers described themselves as divorced, separated, widowed, or never married were considered to be single-parent families ($n = 392$). Married mothers reported being married for an average of 14.32 years ($SD = 8.02$; range = 1–38 years). Mothers who were living as married reported such status for an average of 9.94 years ($SD = 5.87$; range = 1–29 years). Separated mothers reported having been separated for an average of 6.61 years ($SD = 4.54$; range = 1–20 years), and divorced mothers reported having been divorced an average of 6.8 years ($SD = 4.20$; range = 1–20 years). Widowed mothers reported having been widowed for an average of 8.13 years ($SD = 5.44$; range = 2–21 years).

Our sample was exclusively Caucasian, consistent with the Northern Irish population, which is almost exclusively Caucasian. At the same time, there are well-defined differences in ethnic groups, reflected in oftentimes ethnically segregated neighborhoods and schools in Belfast. In order to capture these differences,

we attempted to sample from a variety of neighborhoods, ranging in degree of segregation by ethnicity. Sampling of ethnic groups (40% Catholic, 60% Protestant) was representative of the population distribution in the region (43% Catholic, 57% Protestant; Darby, 2001).

The 18 areas selected for sampling in this study were informed by analyses of representative neighborhoods and family structures conducted by a demographer expert in the composition of ethnic neighborhoods in Belfast. Potential confounds for the socioeconomic status (SES) of families and other demographic characteristics were addressed by focusing data collection on regions highly similar in these regards, concentrating on working-class areas, which are also historically most linked with the conflict and violence associated with the Troubles. The choice of study areas was based on a range of variables, including levels of ethnic segregation in communities, indices of social deprivation, and levels of politically motivated violence since the onset of conflict in the late 1960s. All of the neighborhoods selected were in the bottom 20th percentile in a social deprivation measure calculated by ward in Northern Ireland, all were more than 90% segregated by ethnic group, and each interfaced with an adjoining neighborhood populated by the other ethnic group. Between 35 and 40 families were selected for participation from each area.

These data were derived from the Northern Ireland Housing Executive and the 2001 Northern Ireland Census of Population. The census was based on Northern Ireland's 582 wards with an average population of around 3,500 residents per ward. In addition, most wards in Northern Ireland, and all wards in Belfast, are divided into super output areas (SOAs), with an average population of around 600 across Northern Ireland. Given their low populations, these small-scale SOAs generally contain standardized populations with regard to religious/community background and socioeconomic conditions. Our study areas were located in 11 of Belfast's 48 wards and were constructed around the 28 SOAs in which the survey was undertaken.

The levels of religious segregation within the study areas were high. On the basis of our sources of data, 47% of all residents within the Belfast urban area were Catholics, and around 50% were Protestants. In effect, if all things were equal and there was no religious segregation, each study area would be expected to have relatively equal populations by religion. In reality, around 68% of residents in Belfast live in wards that are at least 81% Catholic or Protestant, and it is the case that SOAs, as compared with wards, are generally more segregated (Shirlow & Murtagh, 2006). Within (as measured by SOA) the predominantly Protestant areas in this study, the Protestant population ranged from 90% to 97%. In the predominantly Catholic study areas, the percentage of Catholics ranged from 91% to 99%. In each instance, the study areas were either grossly over- or underrepresented with regard to the percentage share of either ethnic group living within the wider Belfast urban area but were indicative of the level of religious segregation within highly deprived communities within the city.

Ward-level data also provide the bases for the multiple deprivation measure. This index is measured against all 582 wards in Northern Ireland and is based on a scoring system in which 1 indicates the most deprived ward and 582 indicates the most affluent ward. Multiple deprivation rankings are determined by income, employment, health, education, proximity to services, crime, and the quality of the living environment. All of the areas

in this study were located in wards within the most deprived fifth of all wards in Northern Ireland, and 13 of the 18 study areas were located within the most deprived tenth (ranging from a rank of 2 to a rank of 94, among 582 wards in Northern Ireland). National curriculum qualifications in the British system included the General Certification of Education (GCSE), Advanced Subsidiary (AS) level, and Advanced (A) level, with passing GCSE qualifications closest to a U.S. high school degree. The proportion of residents 16–74 years of age who do not hold educational qualifications is a significant determinate of social class and economic status. Within Belfast, 56.6% of 16- to 74-year-olds did not hold any educational qualifications in 2001. All of the areas in this study had higher proportions of nonqualification than the Belfast average, with 12 out of 18 having populations characterized by at least 70% of residents holding no educational qualifications.

Finally, demographic data indicated that these areas were relatively high in sectarian violence. For example, data supplied by the Police Services of Northern Ireland relating to the measurement of sectarian crime indicated that the wards that constituted the study areas held an average between them that was 163% higher than the Belfast ward average. In sum, each of the study areas is a site of high segregation, multiple deprivation, nonpossession of qualifications to work, and, as a group, relatively high sectarian violence.

Procedure

Data were collected through in-home interviews conducted by Market Research Northern Ireland, an established survey company based in Northern Ireland with considerable experience completing survey work in Belfast communities. Interviewers were accredited under the Interviewer Quality Control Scheme and registered under the Data Protection Act, therefore adhering to all of its requirements.

We obtained Human Subjects Review Committee approval of the research protocol across all participating universities and obtained parental consent prior to any fieldwork. Protocols were presented for parental consent and child assent. Children's surveys took about 30 min to complete; mothers' surveys took about 1 hr to complete. Data for the current study were drawn from the first wave of a larger, ongoing study. Notably, very little data were missing in Wave 1, consistent with data being collected one-on-one by highly trained interviewers. Families were given monetary compensation for their time.

Measures

Children's exposure to community antisocial behavior. The Sectarian Antisocial Behavior and the Nonsectarian Antisocial Behavior Scales were developed for this project as indices of children's exposure to sectarian and nonsectarian conflict and violence, respectively. Focus groups and pilot work with independent samples supported instrument development (see Goeke-Morey et al., 2009). To generate items for the scales that represented contemporary expressions of sectarian and nonsectarian antisocial behavior, we arranged for multiple focus groups to be conducted in Belfast during which Protestant or Catholic mothers ($n = 33$), respectively, were asked to discuss issues in their community. Resulting scales were evaluated through use of a two-wave quantitative assessment with over 100 mothers in Derry/

Londonderry, Northern Ireland. Refinements between administrations were informed by factor analyses, conceptual considerations, and feedback from the experimenter working with the mothers. Exploratory factor analysis of the final scale (second administration) clearly distinguished sectarian items from nonsectarian items. Internal consistency was .94 for the sectarian scale and .68 for the nonsectarian scale.

The items for the Sectarian Antisocial Behavior and Nonsectarian Antisocial Behavior Scales are presented in the Appendix. The Sectarian Antisocial Behavior Scale is a 12-item questionnaire containing items assessing children's exposure, within the past 3 months, to sectarian antisocial behaviors, such as observing stones or objects thrown over peace walls, houses or churches paint bombed, or someone killed or seriously injured by the other community. The Nonsectarian Antisocial Behavior Scale is a seven-item questionnaire containing items assessing children's exposure to nonsectarian antisocial behaviors within the past 3 months, such as drugs being used or sold, robberies, or killings and injuries unrelated to sectarian affiliations. Items were answered on a 5-point Likert-type scale, with choices ranging from 1 (*not in the last 3 months*) to 5 (*every day*). Supporting these scales for the present Belfast sample, we conducted exploratory factor analyses using principal axis factoring. Both statistical considerations (e.g., eigenvalues, factor loadings) and interpretability of factors were taken into consideration in determining the number of factors to retain.

Analysis of mothers' reports indicated a two-factor solution. Items from the Sectarian Antisocial Behavior and the Nonsectarian Antisocial Behavior Scales clearly loaded onto their respective factors, with all loadings at or above .54. Although the eigenvalues indicated the possibility that more than two factors best explains the data, the pattern of factor loadings for the three- and four-factor solutions were not easily interpreted and included several cross-loadings. For children's reports, the results indicated that two-factor and four-factor solutions were both meaningful. When forced to two factors, both mothers' and children's reports clearly differentiated between the Sectarian Antisocial Behavior and the Nonsectarian Antisocial Behavior Scales, with all items loading on their respective factors. The factor loading patterns were similar for mothers and children, but they were not identical. The four-factor solution further divided the Sectarian Antisocial Behavior and the Nonsectarian Antisocial Behavior Scales into separate subscales.

Both mothers' and children's reports were used in the models in the current study. For the present sample, Cronbach's alphas for the Sectarian Antisocial Behavior Scale were .94 for mothers' reports and .90 for children's reports, and alphas for the Nonsectarian Antisocial Behavior Scale were .78 for mothers' reports and .74 for children's reports. The data were combined to capitalize on the multi-informant data, reducing possible inflation of values due to common monoreporter variance between the pathways examined. Use of multiple reporters was preferable in terms of measurement in this regard as well as parsimony in model testing to analyses based on separate reporters. Child exposure measures provided indices of community violence relevant to both child and family functioning. The correlations between mother and child reports were moderate in size for both the Sectarian Antisocial Behavior and the Nonsectarian Antisocial Behavior Scales (see Table 1). With regard to comparisons of child and maternal per-

Table 1
Intercorrelations Among the Variables

Variable	SAB, mother	SAB, youth	NAB, mother	NAB, youth	CON, mother	CON, youth	COH, mother	COH, youth	SIC, mother	SIFS, youth	PASS, youth	TOT, mother	TOT, youth	PRO, mother	PRO, youth
SAB, youth	.53***	—													
NAB, mother	.52***	.42***	—												
NAB, youth	.31***	.53***	.69***	—											
CON, mother	.04	.03	.03	-.05	—										
CON, youth	.06	.16***	.01	.11**	.42***	—									
COH, mother	.00	.01	.05	.05	-.52***	-.37***	—								
COH, youth	.00	-.11**	.07	-.06	-.36***	-.63***	.49***	—							
SIC, mother	.33***	.22***	.22***	.07	.14**	-.07	.02	.09*	—						
SIFS, youth	-.11**	-.28***	-.08*	-.24***	-.12**	-.40***	.26	.48***	.10**	—					
PASS, youth	-.18***	-.31***	-.18**	-.29***	-.10**	-.32***	.22***	.38***	.05	.68***	—				
TOT Problems, mother	.10*	.00	.01	-.09*	.46***	.28***	-.38***	-.31***	.25	-.11**	-.11**	—			
TOT, youth	.01	-.05	-.04	-.06	.34***	.24***	-.30***	-.28***	.10*	-.08*	-.08*	.63***	—		
PRO, mother	.00	-.13***	.11**	.02	-.19***	-.32***	.27***	.35***	.17***	.44***	.48***	-.20***	-.05	—	
PRO, youth	-.06	-.15***	.04	.00	-.14***	-.28***	.24***	.34***	.10**	.50***	.55***	-.17***	-.14***	.71***	—
M	2.61	3.04	2.76	2.26	3.08	3.01	7.22	7.05	7.33	31.46	53.61	11.10	11.15	6.53	6.76
SD	6.03	5.76	3.85	3.37	2.06	2.19	1.70	1.84	4.08	3.93	7.42	5.89	5.84	2.84	2.59

Note. SAB = sectarian antisocial behavior; NAB = nonsectarian antisocial behavior; CON = Conflict subscale of the Family Environment Scale; COH = Cohesion subscale of the Family Environment Scale; SIFS = Security in the Family Scale; PASS = Parental Attachment Security Scale; TOT = Total Problems scale of the Strengths and Difficulties Questionnaire; PRO = Prosocial subscale of the Strengths and Difficulties Questionnaire.
* $p < .05$. ** $p < .01$. *** $p < .001$.

ceptions of the extent of child exposure to such behaviors, 37% of mothers and 44% of children reported exposure to sectarian antisocial behaviors in the past 3 months, whereas 55% of mothers and 50% of children reported exposure to nonsectarian antisocial behaviors in the past 3 months. Notably, to facilitate comparability across families, and to ensure the safety of interviewers, we gathered all data outside of the period of the most violent time of year, that is, the summer "marching season," when rates of sectarian antisocial behaviors are at their highest levels. Creating latent variables with the two indicators resulted in highly correlated factors, which created problems with multicollinearity; thus, the scores were combined so as to create one manifest variable for sectarian antisocial behaviors and one for nonsectarian antisocial behaviors.

Family conflict and cohesion. Mothers and children separately completed the Conflict and Cohesion scales of the Family Environment Scale (Moos & Moos, 1986). The Conflict scale included items tapping conflict frequency and intensity. The Cohesion scale consisted of items tapping support and togetherness. These scales are appropriate for single-parent, as well as two-parent, families, as each item refers to familywide relationships. Each scale consists of nine items, answered either 1 (*true*) or 2 (*false*). These measures are widely used, with established psychometric properties. Cronbach's alphas for this sample were .64 for mothers and .67 for children for the Conflict scale and .58 for mothers and .63 for children for the Cohesion scale.

Insecurity about the community. Mothers completed the Security in the Community questionnaire. This measure, consisting of five items, assesses the mother's perception of her child's sense of safety and threat about the community, sensitive to the cultural context of Northern Ireland. Items were scaled such that high scores indicated greater insecurity about the community. Sample items include "My child feels threatened by people approaching from the other community" and "My child at times has been unable to sleep because of the violence in the area." Mothers responded to statements using a five-point Likert-type scale ranging from 1 (*not at all like my child*) to 5 (*a whole lot like my child*). Focus groups and pilot work with independent samples supported instrument development and demonstrated adequate psychometric properties, including internal consistency and predictive and construct validity (Goeke-Morey et al., 2009). Cronbach's alpha for the present sample was .85.

Security in the parent-child relationship. On the basis of the Parental Attachment Security Scale (Davies et al., 2002), children rated their emotional security about the mother-child relationship (e.g., "When I'm upset, I go to my mother for comfort"). The scale consists of 15 items, completed on a 4-point Likert-type scale ranging from 1 (*not at all true of me*) to 4 (*very true of me*). The scale has good reliability, and validity is supported by significant associations with multi-informant reports of attachment quality, psychological symptoms, and family adversity (Davies et al., 2002). Cronbach's alpha was .94 in this sample.

Security in the family. Children completed the Security subscale of the Security in the Family Scale (Forman & Davies, 2005), an index of children's emotional security about their families. The SIFS consists of seven items, completed on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items index such things as the child's sense of being able to count on the family in times of need and the belief that things will work

out for the family. The Security subscale has demonstrated good reliability and validity (Forman & Davies, 2005). Cronbach's alpha was .91 in this sample.

Child adjustment. The Strengths and Difficulties Questionnaire (Goodman, 1997) was completed by mothers and children. This 25-item measure contains five subscales, including four problem subscales (Conduct Problems, Peer Problems, Emotion Problems, and Problems With Hyperactivity), and a Prosocial Behavior subscale (e.g., "is considerate of other people's feelings"; "shares readily with other children"). Each item is completed on a 3-point Likert scale, with choices ranging from 0 (*not true*) to 2 (*certainly true*). Psychometric properties are well established in United Kingdom samples and shown to be preferable to other established measures on a variety of bases for use with community samples (see Goodman & Scott, 1999). The four problem subscales were combined to form an Adjustment Problems scale in this study. Both the Adjustment Problems and Prosocial Behavior scales were used as outcome measures. Cronbach's alphas for the Total Problems scale were .78 for mothers' reports and .77 for children's reports, and alphas for the Prosocial Behaviors scale were .81 for mothers' reports and .78 for children's reports.

Results

Preliminary Analyses

Means, standard deviations, and intercorrelations among the variables are presented in Table 1. Significant correlations between mother and child reports supported combining them (see Table 1). For all model tests, mother and child scores were standardized and summed to create composite scores for sectarian antisocial behavior, nonsectarian antisocial behavior, family conflict, family cohesion, child total problems, and child prosocial behavior. We conducted independent samples *t* tests to examine differences in the study variables based on child gender. The Type I error rate for these tests was adjusted with the Bonferroni method; thus, the *p* value was calculated as $.05/9 = .005$. Six significant differences emerged. Boys were exposed to more family conflict than were girls, $t(694) = 4.43, p < .001$, and girls experienced more family cohesion than did boys, $t(694) = -3.41, p < .001$. Boys evidenced greater insecurity in the family, $t(638) = -4.44, p < .001$, and more insecurity in the parent-child relationship, $t(647) = -5.02, p < .001$. Girls exhibited more prosocial behavior than did boys, $t(646) = -5.28, p < .001$, and fewer total problems, $t(692) = 3.48, p < .001$. To examine age differences, we computed bivariate correlations between each of the study variables and child age. Age was positively correlated with nonsectarian antisocial behaviors ($r = .18, p < .001$), indicating that older children had greater exposure, and was negatively correlated with security in the parent-child relationship ($r = -.17, p < .001$), suggesting that security in the parent-child relationship decreased with age. Independent samples *t* tests revealed that children with older siblings did not experience greater exposure to sectarian antisocial behaviors than did children without older siblings. To test for differences in means for all study variables for the two groups (two-parent and single-parent), we conducted independent samples *t* tests. To control the Type I error rate, we again used the Bonferroni method; thus, the adjusted *p* value was .005. Four of these comparisons were significant. Compared with children from two-parent fami-

lies, children from single-parent families were exposed to more sectarian antisocial behaviors, $t(691) = 2.91, p = .004$, and nonsectarian antisocial behaviors, $t(694) = 3.28, p = .001$. In addition, children from two-parent families were more secure in the parent-child relationship than were children from single-parent families, $t(689) = -3.50, p < .001$, but children from single-parent families evidenced more prosocial behavior, $t(694) = -4.08, p < .001$.

Primary Analyses

We conducted path analysis using Analysis of Moment Structures (Amos, Version 6.0.0; Arbuckle & Wothke, 1999) to examine links between various levels of the social-ecological model. Amos handles missing data using the full information maximum likelihood approach. We report multiple fit indices to facilitate evaluation of the degree to which our models fit the sample data. Acceptable fit is indicated by values of chi-square that are non-significant, although this is adversely affected by large sample sizes, values below three on the χ^2/df index (Bollen, 1989), values above .90 for the comparative fit index (CFI) and the normed fit index (NFI; Hu & Bentler, 1999), and values less than, or equal to, .08 for the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993). R^2 values are reported to provide information about the proportion of variance accounted for in each of the process and outcome variables (see Figures 1 and 2). In addition, we provide indices of the total standardized effects of the

sectarian and nonsectarian antisocial behaviors on the outcome variables, including all intervening paths (i.e., direct plus indirect effects through the intervening variables). In our models, we controlled for several demographic variables, including child age and gender and social deprivation, by regressing the primary variables onto these variables, and using the residualized primary variables in the analyses. These variables were controlled rather than considered as exogenous predictors to reduce the complexity of models, limiting pathways to primary constructs, and to facilitate model fit. We allowed constructs at the same conceptual level of the theoretical model to correlate with one another (e.g., within the microsystem, we allowed family conflict and cohesion to be correlated).

Testing the Social-Ecological Model for All Families

A first level of analysis concerned the social ecological model for our full sample of community families in Belfast, without regard to family structure. Accordingly, we began by running a path-analytic model on the data from the whole sample, without specifying separate groups as a function of family structure (see Figure 1). Some of the model fit indices suggested adequate fit, whereas others suggested less adequate fit, $\chi^2(2) = 7.467, p < .05, \chi^2/df = 3.733, NFI = .996, CFI = .997, \text{ and } RMSEA = .063$.

Moving from conceptually more distal (left) to more proximal (right) influences on child adjustment in Figure 1, sectarian antisocial behaviors were linked with greater family conflict ($\beta =$

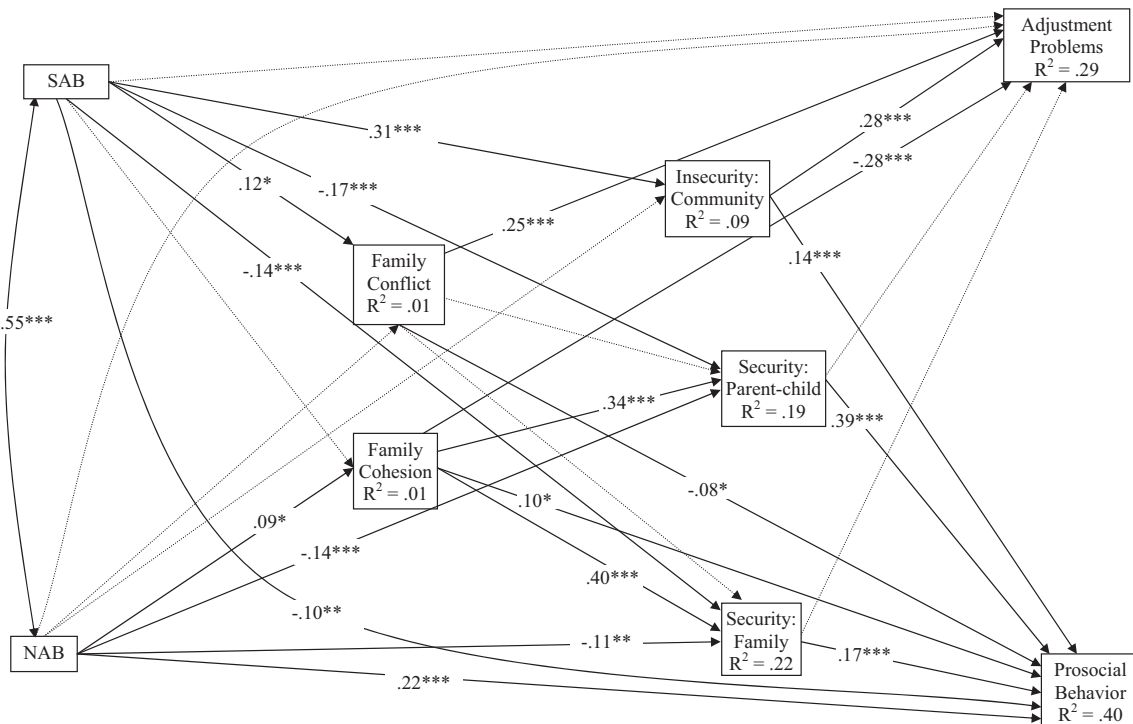


Figure 1. Testing pathways in a social-ecological model for relations between political violence and child outcomes. Dashed lines indicate paths that are not significant. R^2 values are reported for each significant pathway. SAB = sectarian antisocial behavior; NAB = nonsectarian antisocial behavior. Fit indices: $\chi^2(2) = 7.47, p < .05, \chi^2/df = 3.73, \text{ normed fit index} = .996; \text{ comparative fit index} = .997; \text{ root mean square error of approximation} = .063. * p < .05. ** p < .01. *** p < .001.$

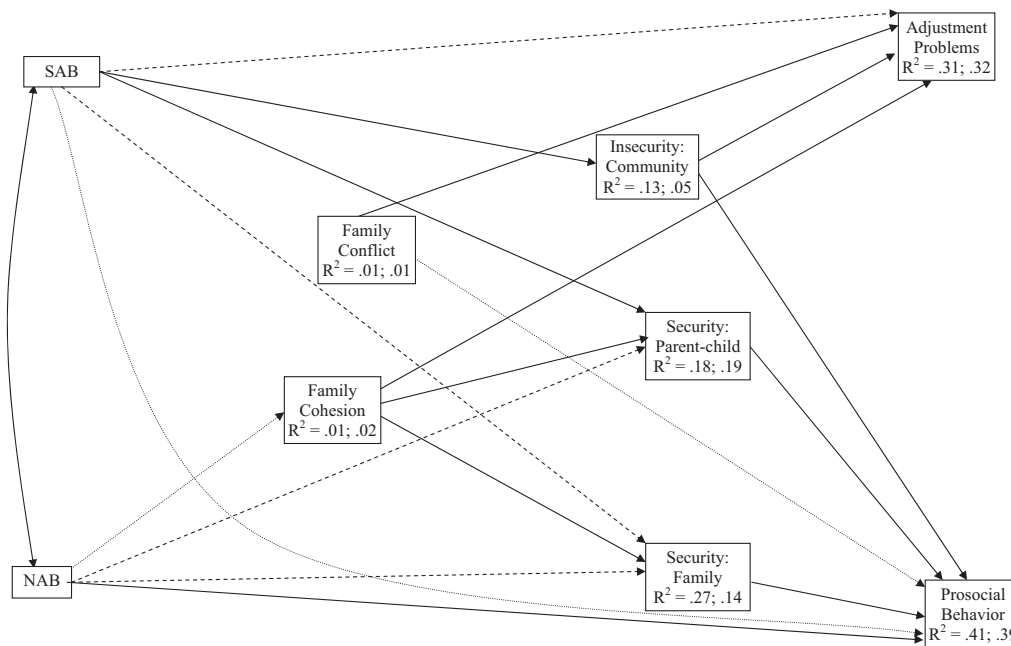


Figure 2. Comparisons of pathways in the social ecological model for single- and two-parent families. Solid lines denote paths that are significant for both groups, dashed lines denote paths only significant for single-parent families, and dotted lines denote paths only significant for two-parent families. R^2 values are reported for each significant pathway. SAB = sectarian antisocial behavior; NAB = nonsectarian antisocial behavior. Fit indices: $\chi^2(4) = 8.34, p > .05, \chi^2/df = 2.09$; *normed fit index* = .996; *comparative fit index* = .998; *root mean square error of approximation* = .040. * $p < .05$. ** $p < .01$. *** $p < .001$.

.116, $p < .05$), insecurity in the community ($\beta = .313, p < .001$), insecurity in the family ($\beta = -.138, p < .001$), insecurity in the parent-child relationship ($\beta = -.173, p < .001$), and less child prosocial behavior ($\beta = -.101, p < .01$). By comparison, nonsectarian antisocial behaviors were associated with insecurity in the family ($\beta = -.110, p < .01$) and insecurity in the parent-child relationship ($\beta = -.144, p < .001$), but, contrary to expectations, were also associated with higher family cohesion ($\beta = .091, p < .05$) and more prosocial behaviors in children ($\beta = .217, p < .001$).

Moving to more proximal influences, we found that family conflict was linked with more child adjustment problems ($\beta = .249, p < .001$) and less child prosocial behavior ($\beta = -.082, p < .05$). By contrast, family cohesion was associated with security in the parent-child relationship ($\beta = .343, p < .001$), security in the family ($\beta = .398, p < .001$), child prosocial behavior ($\beta = .098, p < .05$), and less child adjustment problems ($\beta = -.277, p < .001$). Finally, security in the parent-child relationship and security in the family were each related to greater child prosocial behavior ($\beta = .394, p < .001$; $\beta = .165, p < .001$, respectively). Insecurity in the community was also associated with more child adjustment problems ($\beta = .282, p < .001$), and, unexpectedly, with more prosocial behavior ($\beta = .143, p < .001$).

This model explained 0.95% of the variance in family conflict, 0.65% of the variance in family cohesion, 9.18% of the variance in insecurity about the community, 18.80% of the variance in insecurity in the parent-child relationship, 21.52% of the variance in insecurity in the family, 29.36% of the variance in child adjust-

ment problems, and 40.06% of the variance in prosocial behavior. The total standardized effect of the sectarian antisocial behaviors on prosocial behavior was $-.179$, and the effect on child adjustment problems was $.053$. The total standardized effect of the nonsectarian antisocial behaviors on prosocial behavior was $.216$, and the effect on child adjustment problems was $-.052$.

Testing the Social-Ecological Model: Single- and Two-Parent Families

Next, we ran this model again to test the a priori concern with comparing models for single- and two-parent families, this time specifying family structure (single- vs. two-parent family), allowing the program to estimate the parameters for each path separately for each group. Child age, gender, and social deprivation were again controlled. This model fit the data well, $\chi^2(4) = 8.34, p > .05, \chi^2/df = 2.085, NFI = .996, CFI = .998$, and $RMSEA = .040$.

Similarities in the findings across family structures. Many of the same pathways were significant for both single-parent and two-parent groups, respectively, when the parameters were estimated separately for each path for each group (see Figure 2). With regard to similarities, in moving from conceptually more distal (left) to more proximal (right) influences on child adjustment, we found significant links for both single-parent and two-parent families, respectively, for each of the following relations: sectarian antisocial behaviors and insecurity in the community ($\beta = .365, p < .001$; $\beta = .233, p < .01$), and sectarian antisocial behaviors and insecurity in the parent-child relationship ($\beta = -.176, p <$

.01; $\beta = -.162, p < .05$). Notably, the correlation between sectarian and nonsectarian antisocial behaviors was significant for both family types ($\beta = .527, p < .001$; $\beta = .597, p < .001$).

Next, for both single-parent and two-parent families, links were found between family conflict and child adjustment problems ($\beta = .356, p < .001$; $\beta = .126, p < .05$). Associations were also indicated between family cohesion and security in the parent-child relationship ($\beta = .349, p < .001$; $\beta = .354, p < .001$), family cohesion and security in the family ($\beta = .440, p < .001$; $\beta = .348, p < .001$), and family cohesion and fewer child adjustment problems ($\beta = -.189, p < .01$; $\beta = -.353, p < .001$).

With regard to the most proximal relations in the model, for both single-parent and two-parent families, respectively, child prosocial behavior was associated with security in the parent-child relationship ($\beta = .38, p < .001$; $\beta = .38, p < .001$), security in the family ($\beta = .22, p < .001$; $\beta = .13, p < .05$), and insecurity in the community ($\beta = .12, p < .01$; $\beta = .17, p < .001$). In addition, insecurity in the community was associated with more child adjustment problems ($\beta = .26, p < .001$; $\beta = .32, p < .001$). One unexpected finding, also found in the tests for all families (see above), emerged: Nonsectarian antisocial behaviors were linked with higher levels of prosocial behavior ($\beta = .20, p < .001$; $\beta = .29, p < .001$).

For single-parent families, this model explained 1.27% of the variance in family conflict, 0.47% of the variance in family cohesion, 13.34% of the variance in insecurity about the community, 18.28% of the variance in insecurity in the parent-child relationship, 26.75% of the variance in insecurity in the family, 31.04% of the variance in child adjustment problems, and 41.37% of the variance in prosocial behavior. Similarly, for two-parent families, this model accounted for 1.32% of the variance in family conflict, 1.63% of the variance in family cohesion, 4.52% of the variance in insecurity about the community, 18.86% of the variance in insecurity in the parent-child relationship, 13.88% of the variance in insecurity in the family, 31.87% of the variance in child adjustment problems, and 38.82% of the variance in prosocial behavior. For single-parent families, the total standardized effect of sectarian antisocial behaviors on prosocial behavior was $-.160$, and for two-parent families, the effect was $-.214$. For single-parent families, the effect of sectarian antisocial behaviors on child adjustment problems was $-.005$, and the effect for two-parent families was $.179$. For the nonsectarian antisocial behaviors, the effect on prosocial behavior was $.130$ for single-parent families and $.301$ for two-parent families; the effect on child adjustment problems was $-.071$ for single-parent families and $-.164$ for two-parent families.

Differences as a function of family structure. A test of differences, as a function of family structure, was the identification of significant paths that held for one family group but not the other. Among single-parent families, the distinctive paths were the following: sectarian antisocial behaviors and insecurity in the family ($\beta = -.16, p < .01$); nonsectarian antisocial behaviors and insecurity in the parent-child relationship ($\beta = -.16, p < .01$); and nonsectarian antisocial behaviors and insecurity about the family ($\beta = -.14, p < .01$). These responses are linked with pathways to more problematic child outcomes (see Figures 1 and 2). Unexpectedly, we also found a direct pathway from sectarian antisocial behaviors to less child adjustment problems ($\beta = -.14, p < .01$). The following paths were distinctively significant for two-parent

families: sectarian antisocial behaviors and lower prosocial behavior ($\beta = -.14, p < .05$) and family conflict and lower prosocial behavior ($\beta = -.12, p < .05$). Unexpectedly, nonsectarian antisocial behaviors were linked with higher family cohesion ($\beta = .16, p < .05$).

Discussion

Support was provided for a social-ecological model for relations between political violence and child outcomes in a representative community sample in working-class Belfast. Compared with nonsectarian community violence, politically motivated community violence had distinctive influences through various mechanisms on child adjustment problems and prosocial behavior, with especially distinctive effects with regard to the pathways related to greater child adjustment problems. Comparisons of the social-ecological model for single- and two-parent families indicated many similarities but also some pathways that were distinctive. Consistent with emotional security theory, children's emotional insecurity about community, family, and parent-child relations were identified as psychological regulatory processes pertinent to pathways between both community violence and child outcomes. Results also highlighted the value of including measures of positive as well as negative family processes and child outcomes, especially with regard to the relatively many significant pathways identified related to effects on prosocial behavior.

A benefit from tests and measures appropriate for multiple family structures is that all families may potentially benefit from information derived from this research, which may then inform later development of translational intervention or prevention programs for high-risk communities. Notably, multiple pathways were identified from sectarian community antisocial behavior to family functioning to children's emotional security to child outcomes. Consistent with expectations derived from a guiding conceptual model (Cummings et al., 2009), and research focused on processes and mechanisms for two-parent families (Cummings et al., 2010), family functioning and child emotional security processes played intervening roles in the effects of sectarian community violence on children from multiple family structures through multiple pathways.

Among the pathways identified, sectarian community violence was linked with child adjustment problems through heightened family conflict and emotional insecurity about the community. These results suggest that sectarian violence affects children by elevating family conflict, consistent with past findings of relations between community violence and family conflict (Cooley et al., 1995; Margolin & Gordis, 2000; Martinez & Richters, 1993; Richters & Martinez, 1993). New insights were the identification of pervasive influences of sectarian community violence on children's emotional security concerning multiple aspects of their social environments, extending the emotional security model to include sectarian community antisocial behavior as well as family conflict in the context of multiple family structures (Cummings & Davies, 1996; Davies & Cummings, 1994, 1998; Lovell & Cummings, 2001).

With regard to additional pathways associated with sectarian community violence, other aspects of the family environment and child emotional security related to levels of children's prosocial behavior rather than their adjustment problems. Interestingly, mul-

tiple pathways were found between sectarian community violence and lower levels of children's prosocial behavior, including links through family conflict and reduced emotional security about multiple aspects of the social environment (the community, the family, and the parent-child relationship). These results thus also extend the emotional security theory model to include possible explanations related to prosocial outcomes in children (e.g., McCoy et al., 2009). Given that prosocial behavior is related to children's well-being and optimal social functioning and may be related to children's potential contributions to peace processes (e.g., children's engagement in behaviors helpful to others), these findings highlight the importance of measuring positive as well as more negative aspects of children's socioemotional functioning in these contexts. Moreover, although not directly linked with sectarian community violence, family cohesion acted as a positive influence in these contexts, associated with both reduced child adjustment problems and elevated prosocial behavior, through direct pathways and through children's security about family relationships (i.e., parent-child and family relationships as a whole). These results indicate the significance of measuring positive as well as negative aspects of family in studying relations between political violence and child outcomes and show that supporting positive family functioning may have beneficial implications for children in these contexts.

Distinctive pathways were found for sectarian and nonsectarian community violence, consistent with the conceptual distinctions between these constructs and psychometric support for the distinctive characteristics of these community antisocial behaviors (e.g., factor analyses; Goetze-Morey et al., 2009). In contrast to sectarian community violence, nonsectarian community violence was not associated with family conflict (see also Cummings et al., *in press*), emotional insecurity about community, or pathways to adjustment problems.

Although a common finding has been the links between community violence and child adjustment problems, past studies of community violence, for example, in U.S. inner cities, have not distinguished between sectarian and nonsectarian elements of community violence. The distinction between sectarian and nonsectarian dimensions of community violence may broadly pertain to U.S. inner cities as well as cultural contexts in many other parts of the world (Cummings et al., 2009). Moreover, although links with fewer prosocial behaviors emerged indirectly through reduced emotional security about family and parent-child relations, links were also found between nonsectarian community violence and increased prosocial behavior and family cohesion. Together with the finding of links between insecurity about the community and prosocial behavior, these findings suggest that threatening community contexts may also serve to heighten prosocial behavior. Past studies also report relations with heightened prosocial behavior in areas of political violence but suggest that the effects may be limited to members of the same ethnic community and may not extend to members of the other group, indicating that these responses are meant to help one's own group in times of duress, rather than aid the other group (Sabatier, 2008). In this regard, prosocial behavior may reflect a type of preference for one's own group over others, associated with processes of social identity (Cairns, Kenworthy, Campbell, & Hewstone, 2006; Merrilees et al., 2009). Relatedly, links between nonsectarian antisocial behav-

iors and heightened family cohesion may also reflect a form of protective mechanism against external threats in the community, but further study of correlates with other family and child processes is needed to account for this finding.

The comparisons of single- and two-parent families indicated that single- and two-parent families are, in many ways, similarly affected by both politically motivated and apolitical forms of community violence. Interestingly, the several differences in these pathways suggested that children's emotional security about parent-child and family relationships and child adjustment problems may be more vulnerable to community violence in single-parent families, whereas children from two-parent families are more prone to reductions in prosocial responding. These findings for single-parent families are consistent with the hypothesis that children from single-parent homes are prone to emotional insecurity in contexts of community violence because of reduced family/parental resources and supports. Thus, one highly speculative explanation for the aberrant pathway found between sectarian antisocial behaviors and reduced child adjustment problems in single-parent families is the heightened role of pathways through emotional insecurity in more fully accounting for negative outcomes in children from these families. Among children from two-parent families, orientations to positive behaviors were particularly reduced. Thus, effects may be more pronounced on dispositions to behave well than on tendencies to be more vulnerable to problems in regulatory processes (i.e., emotional insecurity).

A caveat for the interpretation of the social-ecological model tested in this report follows from the fact that only relatively global constructs for family functioning could be included to allow comparability in family variables across single- and two-parent families. Additional family and child processes may also factor in child outcomes. For example, Cummings et al. (*in press*) demonstrated that including marital conflict, children's emotional security about marital conflict, and parental monitoring further explicated pathways between sectarian community violence and children's internalizing and externalizing problems for two-parent families. Additional model testing with more specific family factors that characterize single-parent families (e.g., parent and dating partner conflict and violence) would further explicate precise pathways of influence for single-parent families and are therefore an important direction for future research. Finally, a problem for interpretation encountered in studies of neighborhood violence in U.S. samples is "selection," that is, the characteristics of families selecting into these neighborhoods may contribute to poorer developmental outcomes in children beyond the connection with neighborhood difficulties (Fauth, Leventhal, & Brooks-Gunn, 2007; Gershoff, Aber, Raver, & Lennon, 2007). For example, a rival hypothesis is that children with adjustment problems induce higher family conflict and lower cohesion and are also more likely to "select into" experiences of community violence exposure. Although neighborhoods were carefully selected to be comparable across multiple characteristics, and analyses controlled for multiple, possibly confounding elements, there remains a possibility that selection in this sense factored into the results.

Certain limitations should be acknowledged. Although tests of path models followed hypotheses derived from propositions of a social-ecological model, the cross-sectional research design limits conclusions about causal relationships or directions of effect. For

example, children's adjustment or prosocial behavior may influence, as well as be influenced by, family process (Schermerhorn, Cummings, DeCarlo, & Davies, 2007). The inclusion of multiple reporters (i.e., mothers, children) is a methodological strength in relation to other studies of political violence and children. Moreover, the approach, together with the use of focus groups and pilot studies to address gaps in available measures, can serve as a template for how researchers in communities in the United States or other parts of the world can advance ecologically sound assessments of these constructs in the future. At the same time, culturally distinct forms of sectarian antisocial behavior may vary widely across societal contexts so that the generalizability of these assessments to other cultures may be limited (Cummings et al., 2009). Another direction for future research, which requires a longitudinal research design, is the investigation of transactional relations between children and their social-ecological contexts over time. An assumption of the theory is that relations between children and their contexts mutually influence each other over time (Cummings et al., 2009). For example, recent longitudinal research on bidirectional pathways between marital conflict and children's responding has demonstrated that children and marital conflict are mutually influential (Schermerhorn et al., 2007).

Future research is needed to address possible age/developmental stage differences in the impact of political violence on children. For example, sectarian and nonsectarian violence may be perceived differently and have different meanings for children of early school age in comparison with adolescents. Within the context of this study, age, gender, and deprivation were controlled in the primary analyses to facilitate model testing, which limited the capacity to interpret these variables in the context of model testing. At the same time, intriguing differences were found that merit further study; boys were exposed to more family conflict and were less secure in family relationships than girls were (see Cummings, Davies, & Simpson, 1994), and children's security in family relationships decreased with age in adolescence (see Cummings et al., 2006).

Nonetheless, the implications for understanding social ecologies of sectarian conflict and political violence merit consideration. Agreements between political leaders are only a start toward sustained peace processes, and it may be critical to understand and address the effects of political strife on communities, families, psychological processes (e.g., emotional security), and children for any high likelihood of sustained peace. In many parts of the world, history shows that sectarian conflict and violence may continue for many years after accords are signed and may later re-escalate (Darby, 2006). If peace processes backslide, the younger generation, who may have especially negative perspectives on the other group, is likely to contribute to heightened hostilities (Shirlow & Murtagh, 2006). The study of conflict process at multiple levels of analysis in Northern Ireland can provide bases for better understanding of intergroup conflict and underlying processes, with possible generalization to sectarian and ethnic conflict in other regions of the world. Given the many gaps in understanding the social ecology of political violence from the children's perspective, much future research on these questions is needed in the many parts of the world with high levels of ongoing sectarian conflict and violence.

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Appendix

Scales Assessing Children's Exposure to Sectarian Antisocial Behavior (SAB) and Nonsectarian Antisocial Behavior (NAB)

Sectarian Antisocial Behavior Scale

This last set of questions is about your community. For these next questions, your community refers to the [insert denominational community participant identified earlier] community. And the OTHER community refers to the [insert other] com-

munity. These next questions are about things that might happen in your community. Please report only events that actually occurred in the community, not incidents from movies or fictional television.

In your community in the last 3 months, how frequently have the following occurred:

Response scale	Not in the last	Once in the past	Every month	Every week	Every day
	3 months	3 months			
	1	2	3	4	5
1. Someone beaten up by people from the other community	1	2	3	4	5
2. Name calling by people from the other community	1	2	3	4	5
3. Someone threatened by people from the other community	1	2	3	4	5
4. Someone chased on the street by people from the other community	1	2	3	4	5
5. Someone shouted at from cars by people from the other community	1	2	3	4	5
6. Stones or other objects thrown over walls	1	2	3	4	5
7. Houses or churches paint-bombed by the other community	1	2	3	4	5
8. Windows put in by the other community	1	2	3	4	5
9. Blast bombs or petrol bombs exploded by the other community	1	2	3	4	5
10. Children taunted by people from the other community, including verbal, text messaging, instant messaging or other forms of communication	1	2	3	4	5
11. Deaths or serious injuries from violent or destructive acts by the other community	1	2	3	4	5
12. Children from the other community allowed to get away with crime and misbehavior	1	2	3	4	5

Nonsectarian Antisocial Behavior Scale

These next few questions are still about your community, but now we want to know about things that might happen that are not necessarily anything to do with Catholics

and Protestants. These are things that can happen within all communities that do not have anything to do with the Troubles.

Within your own community in the last three months, how frequently have the following occurred:

Response scale	Not in the last 3 months 1	Once in the past 3 months 2	Every month 3	Every week 4	Every day 5
1. Drunkenness	1	2	3	4	5
2. Drugs being sold or used	1	2	3	4	5
3. Fighting in or outside of bars	1	2	3	4	5
4. Home break-ins	1	2	3	4	5
5. Robberies/muggings	1	2	3	4	5
6. Murders	1	2	3	4	5
7. Stabbings	1	2	3	4	5

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