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Political violence and child adjustment in Northern Ireland: Testing pathways in a social ecological model including single and two-parent families

E. Mark Cummings,
University of Notre Dame

Alice C. Schermerhorn,
University of Notre Dame

Christine E. Merrilees,
University of Notre Dame

Marcie C. Goeke-Morey,
Catholic University of America

Peter Shirlow, and
Queens University, Belfast

Ed Cairns
University of Ulster

Abstract

Moving beyond simply documenting that political violence negatively impacts children, a social ecological hypothesis for relations between political violence and child outcomes was tested. Participants were 700 mother-child (*M*=12.1years, *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

Correspondence should be sent to E. Mark Cummings, Department of Psychology, 118 Haggar Hall, University of Notre Dame, Notre Dame, IN 46556; Edward.M.Cummings.10@nd.edu, phone: 574-631-3404, fax: 574-631-1825.

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, and 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.

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, we 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 inter-community 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 inter-community violence led to the collapse of the Northern Ireland State and the deployment of the British Army.

More than 3500 people have been killed due to the political violence in Northern Ireland (NI) since the 1960's. 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. In addition it is estimated that around 30,000 people were maimed in Northern Ireland, tens of thousands were forced from their homes, and that $100 million of damage was caused to property and business (Shirlow and Murtagh, 2006). Several attempts were made to reach political solutions between 1974 and 1994 (INCORE, 1995), reaching 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, inter-community 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 (Summary of Statistics Relating to the Security Situation, 2006/ 2007).

A Social Ecological Hypothesis for Relations between Political Violence and Children

The hypothesis is 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 inter-personal 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. Elbedour, ten-Bensel, and Bastien (1993) concluded in their review 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. Punamaki (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). Inter-relations between the community and family in affecting 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 (EST, 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). Based on 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 intra-community 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 and O'Halloran, 2000; Muldoon, 2004; Niens, Cairns, & Hewstone, 2003; Smyth and Scott, 2000). Community influences in contexts of political violence can be conceptualized as consisting of sectarian and nonsectarian antisocial behavior. Sectarian community antisocial behavior (SAB) reflects conflict and violence between ethnic, religious or cultural groups, in this instance Catholics and Protestants. SAB consists of local levels of conflict and violence motivated by political strife. By contrast, non-sectarian antisocial behavior (NAB) is "ordinary crime" and/or antisocial behavior, found in any community, regardless of political context, not specifically linked with conflict between ethnic, religious or cultural groups.

Sectarian and nonsectarian antisocial behaviors in communities are likely each to have negative implications for the functioning of families and children. At the same time, the meaning of SAB and NAB for families and children may differ significantly (Cummings et al., 2009). SAB may be more closely linked with insecurity in the sense of being associated with the individual's identity, that is, sectarian violence is directed at people like oneself. Sectarian violence poses a potentially greater threat to inter-community relations and challenges the integrity of the political system and social order, pertinent to the emotional security of both adults and children (MacGinty et al. 2007). At the same time, NAB 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 non-sectarian community violence are pertinent to understanding child development (Cummings et al, 2009), empirical evidence regarding the relative effects of sectarian and non-sectarian community violence is scant.

Tests of the Effects of SAB and NAB in Two-Parent Families in Northern Ireland

Gaps in instrument development for making distinctions between SAB and NAB have limited study in this area. Recently, we have advanced new measures for assessing distinctions between SAB and NAB in Northern Ireland (Goeke-Morey et al., 2009). Based on 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. In comparison with NAB, using family and emotional security measures appropriate to the study of two-parent families, SAB was 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, variables included needed to be 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), positive family (i.e., family cohesion) and child (i.e., prosocial behavior) processes were also studied. The pathways tested, from the most distal to proximal to the child, included (a) SAB and NAB, (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 is whether the social ecological model holds for a representative community sample in working-class Belfast. Many families in areas of high sectarian conflict are working-class single-parent families (Shirlow & Murtaugh, 2006). Thus, excluding single-parent families provides a limited perspective on the pertinence of a social ecological model for understanding relations between political violence and children. Relatedly, a second question is whether there are 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, family-wide 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 EST, 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; Foreman & Davies, 2005). For example, relations are reported between community violence and children's insecure emotional relationships with caregivers (Lynch & Cicchetti, 2002). Thus, the social ecological model, including propositions based on EST, 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 comparison to two-parent families,

children's processes of emotional insecurity might be expected to be more vulnerable to community violence in single-parent families because of reduced resources and therefore greater vulnerability to insecurity rooted in political and community stresses. For example, 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, Garfinkel, Reichman, Teitler, Carlson, & Audigier, 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 study of 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 two-parent families. Distinctive pathways were anticipated for SAB and NAB, respectively, with more negative effects on social ecological processes of SAB, 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 were each 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=1400) 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). Based on stratified random sampling, families were selected with at least one child in the household between 8 and 15 years of age. We selected this age range because (a) the official census only tracks the presence of children under age 16 in households, (b) by 8 years of age, children are aware of the social distinctions being investigated (Cairns, 1987), and (c) children ages 10 and over 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 others children were the oldest or only child in the family (n = 373; 53.6%).

Mothers were selected to participate (rather than fathers), 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. Both single-parent and two-parent families were included, 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 as having been living as married 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 an average of 6.8 years divorced (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, efforts were made 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 and 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 socio-economic status (SES) of families and other demographic characteristics were addressed by focusing data collection on regions highly similar in these regards, focusing on working class areas, which are also historically most linked with conflict and violence associated with the Troubles. The choice of study areas was based upon 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 20^{th} percentile in a social deprivation measure calculated by ward in Northern Ireland, all were over 90% segregated by ethnic group, and each one interfaced with an adjoining neighborhood populated by the other ethnic group. Between 35 and 40 families were selected for participation from each area.

Calculations were derived from data from the Northern Ireland Housing Executive and the 2001 Northern Ireland Census of Population. The census was based upon Northern Ireland's 582 wards with an average population of around 3500 residents per ward. In addition, most wards in Northern Ireland, and all wards in Belfast, are divided into Super Output Areas (SOA) with an average population of around 600 across Northern Ireland. These small scale

SOA generally, given their low populations, generally contain standardised populations regarding religious/community background and socio-economic conditions. Our study areas are located in 11 of Belfast's 48 wards and are constructed around the 28 SOA in which the survey was undertaken.

The levels of religious segregation within the study areas are high when measured by the share of Catholics. Based on 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 SOA are generally more segregated when compared to wards (Shirlow and Murtagh, 2006). Within (as measured by SOA) the predominantly Protestant areas in this study the population that was Protestant ranged from 90% to 97%. In the predominantly Catholic study areas the percentage share of Catholics ranged from 91% to 99%. In each instance the study areas were either grossly over or under-represented 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 upon a score of 1 indicating the most deprived ward and 582 indicating 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 worst fifth of all wards in Northern Ireland and 13 of the 18 study areas are located within the worst tenth (range from rank of 2 to 94, of 582 wards in Northern Ireland). National curriculum qualifications in the British system include 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 share of residents, aged 16–74, who do not hold educational qualifications is a significant determinate of social class and economic status. Within Belfast 56.6% of 16–74 year olds did not hold any educational qualifications in 2001. All of the areas in this study had higher shares of non-qualification than the Belfast average with 12 out of 18 possessing populations with at least 70% holding no educational qualifications.

Finally, demographic data indicated that these areas were relatively high in sectarian violence, For example, data supplied by the PSNI (i.e., 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, the study areas are each sites of high segregation, multiple deprivation, non-possession of qualifications to work, and, as a group, relatively high sectarian violence.

Procedures

Data were collected via in-home interviews conducted by Market Research Northern Ireland (MRNI), 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 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 minutes to complete; mothers' surveys took about 1 hour to complete. Data for the current

study were drawn from the first wave of a larger, ongoing study. Notably, very little data was 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 (SAB) and the Non-sectarian Antisocial Behavior (NAB) scales were developed for this project as indices of children's exposure to sectarian and non-sectarian 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, multiple focus groups were 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. 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 SAB and NAB scales are presented in Appendix 1. The SAB is a 12-item questionnaire, with items assessing children's exposure to sectarian antisocial behaviors within the past three months 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 NAB is a 7-item questionnaire with items assessing children's exposure to non-sectarian antisocial behaviors within the past three months such as drugs being used or sold, robberies, or killings and injuries unrelated to sectarian affiliations. Items were answered using 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, exploratory factor analyses were conducted 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 SAB and NAB 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 SAB and NAB 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 broke down the SAB and NAB 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 SAB were .94 for mothers' reports and .90 for children's reports, and for the NAB 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 mono-reporter variance between the pathways examined. Using multiple reporters was preferable in terms of measurement in this regard and also parsimony in model testing to analyses based on separate reporters. Child exposure measures provided indices of community violence relevant both to child and family functioning. The correlations between mother and child report were moderate in size for

both the SAB and the NAB (see Table 1). With regard to comparisons of child and maternal perceptions of the extent of child SAB/NAB exposure, 37% of mothers and 44% of children reported exposure to SAB in the past three months whereas 55% of mothers and 50% of children reported exposure to NAB in the past three months. Notably, to facilitate comparability across families, and ensure the safety of interviewers, all data were gathered outside of the period of the most violent time of year, that is, the summer "marching season", when rates of SAB 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 as to create one manifest variable for SAB and one for NAB.

Family conflict and cohesion—Mothers and children each 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 family-wide relationships. Each scale consists of 9 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 (SIC). The SIC, consisting of 5 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; thus, high SIC scores indicate *in*security in 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 5-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—Based on the Parental Attachment Security Scale (PASS; 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 PASS consists of 15 items, completed using a 4-point Likert-type scale ranging from *Not at all true of me* to *Very true of me*. The PASS 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 (SIFS; Forman & Davies, 2005), an index of children's emotional security about their families. The SIFS consists of 7 items, completed using 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 (SDQ; Goodman, 1997) was completed by mothers and children. This 25-item measure has 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 UK 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 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 for the prosocial 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, mothers' and children's scores were standardized and summed to create composite scores for SAB, NAB, family conflict, family cohesion, child total problems, and child prosocial behavior. Independent samples t-tests were conducted to examine differences in the study variables based on child gender. The Type-I error rate for these tests was adjusted using the Bonferroni method, thus the p-value was calculated as .05/9 = .005. Six significant differences emerged. Compared to boys, girls evidenced greater security in the family, $t(638) = -4.44$, $p < .001$, and more security in the parent-child relationship, $t(647) = -5.02$, $p < .001$. Girls exhibited more prosocial behavior than boys, $t(646) = -5.28$, $p < .001$, and fewer total problems, $t(692) = 3.48$, $p < .001$. Boys were exposed to more family conflict than girls, $t(694) = 4.43$, $p < .001$, and girls experienced more family cohesion than did boys, $t(694) = -3.41$, $p < .001$. To examine age differences, bivariate correlations were computed between each of the study variables and child age. Age was positively correlated with NAB ($r = .18$, $p < .001$), indicating older children had greater exposure, and negatively correlated with security in the parent-child relationship ($r = -.17$, $p < .001$), suggesting 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 SAB than children without older siblings. To test for differences in means for all study variables for the two groups (two-parent, and non-dating single parent) independent samples t-tests were conducted. To control the Type I error rate, the Bonferroni method was again used, thus the adjusted p-value was .005. Four of these comparisons were significant. Compared to children from two-parent families, children from single-parent families were exposed to more SAB, $t(691) = 2.91$, $p = .004$, and NAB, $t(694) = 3.28$, $p = .001$. In addition, children from two-parent families were more secure in the parent-child relationship than 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

Path analysis was conducted using Analysis of Moment Structures (Amos, v. 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 (FIML). 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 CFI and 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 variables and outcome variables (see Figures 1 and 2). In addition, we provide indices of the total standardized effects of the SAB and NAB 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. These variables were controlled rather than considered as exogenous predictors to reduce the complexity of models, limiting pathways to primary constructs, and 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 suggest adequate fit, while others suggest less adequate fit; $\chi^2 = 7.467$, $df = 2$, $p < .05$, $\chi^2/df = 3.733$, NFI = .996, CFI = .997, and RMSEA = .063.

Moving from conceptually more distal (left) to more proximal (right) influences on child adjustment in Figure 1, SAB was linked with greater family conflict ($\beta = .116$, $p < .05$), 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, NAB was 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, also higher family cohesion ($\beta = .091$, $p < .05$) and more prosocial behavior in children ($\beta = .217$, $p < .001$).

Moving to more proximal influences, family conflict was linked with more child adjustment problems ($\beta = .249$, $p < .001$) and reduced 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 reduced 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 adjustment problems, and 40.06% of the variance in prosocial behavior. The total standardized effect of the SAB on prosocial behavior was −.179 and on child adjustment problems was .053. The total standardized effect of the NAB on prosocial behavior was .216, and on child adjustment problems was −.052.

Testing the Social Ecological Model: Single and Two Parent Families

Next, we reran this model 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, $\chi^2 = 8.340$, $df = 4$, $p > .05$, $\chi^2/df = 2.085$, 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, moving from conceptually more distal (left) to more proximal (right) influences on child adjustment, significant links were found for both single-parent and two-parent families, respectively, for each of the following relations: SAB and insecurity in the community (β = .365, $p < .001$; β = .233, $p < .01$), and SAB and insecurity in the parent-child relationship (β = −.176, $p < .01$; β = −.162, $p < .05$). Notably, the correlation between SAB and NAB was significant for both family types (β = .527, $p < .001$; β = .597, $p < .001$).

Next, for both single-parent and two-parent families, links were found between family conflict and child adjustment problems (β = .356, $p < .001$; β = .126, $p < .05$). Associations were also indicated between family cohesion and security in the parent-child relationship (β = .349, $p < .001$; β = .354, $p < .001$), family cohesion and security in the family (β = .440, $p < .001$; β = .348, $p < .001$), and family cohesion and fewer child adjustment problems (β = −.189, $p < .01$; β = −.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 (β = .38, $p < .001$; β = .38, $p < .001$), security in the family (β = .22, $p < .001$; β = .13, $p < .05$), and insecurity in the community (β = .12, $p < .01$; β = .17, $p < .001$). In addition, insecurity in the community was associated with more child adjustment problems (β = .26, $p < .001$; β = .32, $p < .001$). One unexpected finding, also found in the tests for all families (see above), emerged: NAB was linked with higher prosocial behavior (β = .20, $p < .001$; β = .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, 18.257% 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 SAB on prosocial behavior was −.160, and for two-parent families was −.214. For single-parent families, the effect of SAB on child adjustment problems was −.005, and for two-parent families was .179. For the NAB, 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: SAB and decreased

security in the family (β = −.16, $p < .01$), NAB and decreased security in the parent-child relationship (β = −.16, $p < .01$) and NAB and decreased security about the family (β = −.14, $p < .01$). These responses are linked with pathways to more problematic child outcomes (see Figures 1 and 2). Unexpectedly, a direct pathway from SAB to reduced child adjustment problems was also found (β = −.14, $p < .01$). The following paths were distinctively significant for two-parent families: SAB and lower prosocial behavior (β = −.14, $p < .05$), and family conflict and lower prosocial behavior (β = −.12, $p < .05$). Unexpectedly, NAB was linked with higher family cohesion (β = .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 to non-sectarian 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 EST, 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., in press), family functioning and child emotional security processes played intervening roles in the effects of sectarian community violence on children from multiple family structures via multiple pathways.

Among the pathways identified, sectarian community violence was linked with child adjustment problems though 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, multiple pathways were found between sectarian community violence and reductions in 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 EST 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 both with 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 non-sectarian 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, Goeke-Morey et al., 2009). In contrast with 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 US inner cities, have not distinguished between sectarian and non-sectarian elements of community violence. The distinction between sectarian and non-sectarian dimensions of community violence may broadly pertain to US inner-cities as well as cultural contexts in many other parts of the world (Cummings et al., 2009). Moreover, although there were links with fewer prosocial behavior indirectly through reduced emotional security about family and parent-child relations, links were also found between non-sectarian 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 the effects may be limited to members of the same ethnic community and not members of the other group, suggesting 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 possibly 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 NAB 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 a-political 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 finding 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 SAB 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, rather 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. Further 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 US 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 et al., 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 US 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 study 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 demonstrate 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 non-sectarian violence

may be perceived differently and have different meanings for early school age in comparison to adolescent children. 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; girls were more secure than boys in family relationships, boys were exposed to more family conflict (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 towards 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 & Murtaugh, 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 1

Scales assessing children's exposure to sectarian (SAB) and non-sectarian (NAB) antisocial behavior

SAB. 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*) community. 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 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	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

NAB. 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

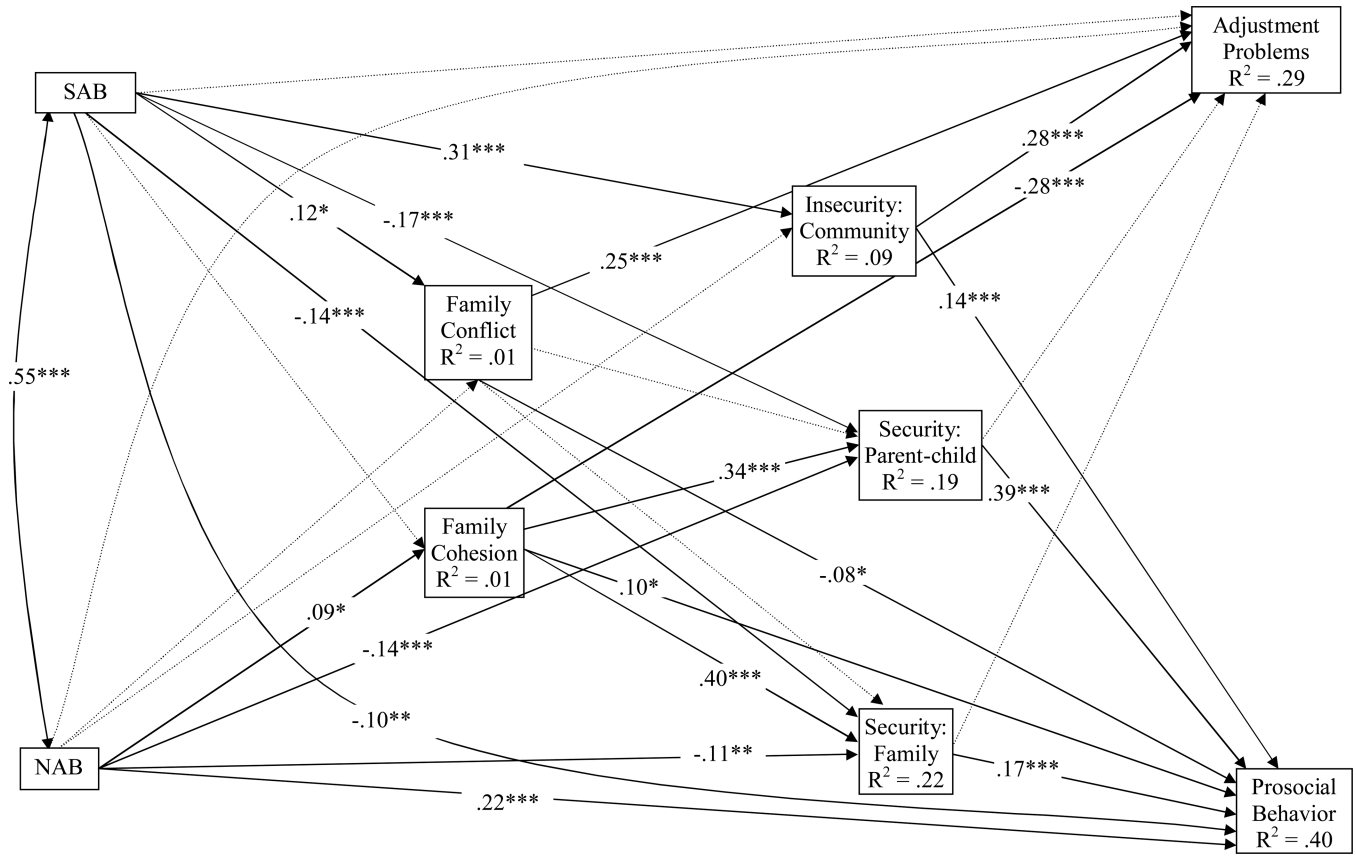

Figure 1.

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: $\chi^2 = 7.467$, $df = 2$, $p < .05$, $\chi^2/df = 3.733$, NFI = .996, CFI = .997, and RMSEA = .063 *$p < .05$. **$p < .01$. ***$p < .001$.

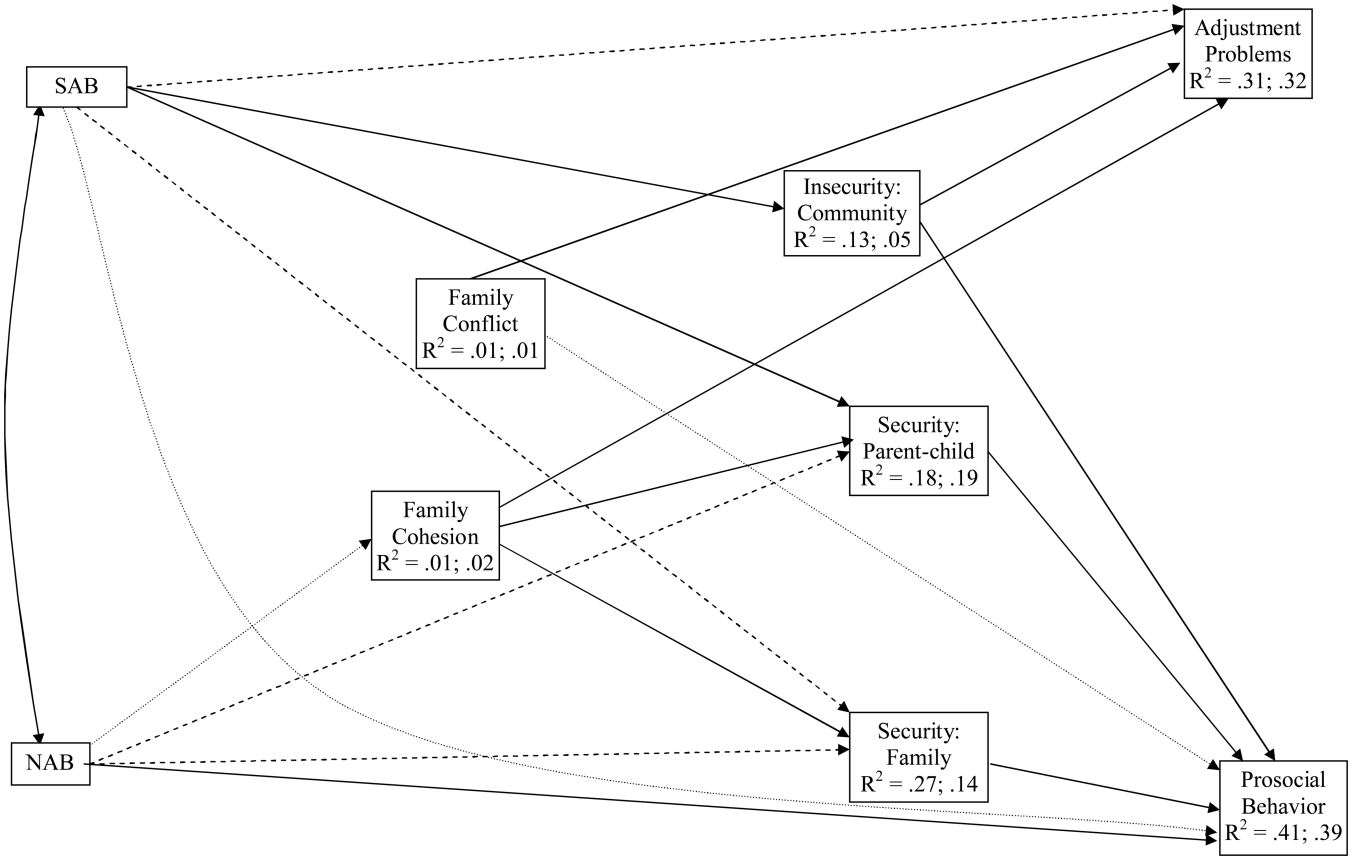

Figure 2.

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: $\chi^2 = 8.340$, $df = 4$, $p > .05$, $\chi^2/df = 2.085$, NFI = .996, CFI = .998, and RMSEA = .040. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 1

Intercorrelations among the Variables.

	M-SAB	Y-SAB	M-NAB	Y-NAB	M-CNF	Y-CNF	M-COH	Y-COH	M-SIC	Y-SIFS	Y-PASS	M-TOT	Y-TOT	M-PRO	Y-PRO
Y-SAB	.53***	---													
M-NAB	.52***	.42***	---												
Y-NAB	.31***	.53***	.69***	---											
M-CNF	.04	.03	.03	−.05	---										
Y-CNF	.06	.16***	.01	.11**	.42***	---									
M-COH	.00	.01	.05	.05	−.52***	−.37***	---								
Y-COH	.00	−.11**	.07	−.06	−.36***	−.63***	.49***	---							
M-SIC	.33***	.22***	.22***	.07	.14***	−.07	.02	.09*	---						
Y-SIFS	−.11**	−.28***	−.08*	−.24***	−.12**	−.40***	.26***	.48***	.10**	---					
Y-PASS	−.18***	−.31***	−.18***	−.29***	−.10**	−.32***	.22***	.38***	.05	.68***	---				
M-TOTAL	.10**	.00	.01	−.09*	.46***	.28***	−.38***	−.31***	.25***	−.11**	−.11**	---			
Y-TOTAL	.01	−.05	−.04	−.06	.34***	.24***	−.30***	−.28***	.23***	−.10*	−.08*	.63***	---		
M- PRO	.00	−.13***	.11**	.02	−.19***	−.32***	.27***	.35***	.17***	.44***	.48***	−.20***	−.05	---	
Y- PRO	−.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. M = mother report; Y = youth report; SAB = Sectarian Antisocial Behavior; NAB = Non-Sectarian Antisocial Behavior; CNF = 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.