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Abstract

Concerns over the number of children living in poverty arise from our knowledge of the problems children face due to poverty. Many researchers have pointed out the psycho-social outcomes of growing up poor, including antisocial behavior. Literature concerning the development of crime has documented a wide range of factors that may intervene between exposure to disadvantage and the development of delinquency, and that could mediate the linkages between poverty and crime. The relationship between childhood economic disadvantage and antisocial behavior represents a relevant issue for child welfare policies and practices as well as for criminological theory. The aim of this paper is to offer a contribution to the theoretical understanding of the issue by way of an overview of the classical theoretical models concerning the various pathways and processes that may lead young people from socially disadvantaged backgrounds to be at a higher risk of delinquency. It presents the findings on the factors influencing resilience or susceptibility to adverse ecological conditions, with particular reference with the mediating role of family functioning and child-rearing, neighborhood poverty and timing of poverty. Theory implications and the relevance of these findings for policy and practice are discussed.

Keywords	Poverty, antisocial behavior, childhood, mediating factors, outcomes
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Childhood Economic Disadvantage and Antisocial Behavior: Intervening Factors and Pathways

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Abstract

Concerns over the number of children living in poverty arise from our knowledge of the problems children face due to poverty. Many researchers have pointed out the psycho-social outcomes of growing up poor, including antisocial behavior. Literature concerning the development of crime has documented a wide range of factors that may intervene between exposure to disadvantage and the development of delinquency, and that could mediate the linkages between poverty and crime.

The relationship between childhood economic disadvantage and antisocial behavior represents a relevant issue for child welfare policies and practices as well as for criminological theory. The aim of this paper is to offer a contribution to the theoretical understanding of the issue by way of an overview of the classical theoretical models concerning the various pathways and processes that may lead young people from socially disadvantaged backgrounds to be at a higher risk of delinquency. It presents the findings on the factors influencing resilience or susceptibility to adverse ecological conditions, with particular reference with the mediating role of family functioning and child-rearing, neighborhood poverty and timing of poverty. Theory implications and the relevance of these findings for policy and practice are discussed.

Keywords

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1. Introduction: the costs of growing up poor

The concern over the social consequences of poverty and social exclusion for children's development and the pledges made by governments to eradicate child poverty are grounded in the widespread acknowledgment of the psycho-social outcomes and the significant long-term economic cost of growing up poor.

Household economic resources have been shown to be a very strong correlate to a variety of youth outcomes and behaviors. There is a large body of research that demonstrates the impact of family income on children (Haveman & Wolfe, 1995; Mayer, 1997), their development (Blau, 1999), their education (Duncan, Yeung, Brooks-Gunn & Smith, 1998) and their later income level (Solon, 1999).

Individuals who experience poverty in their childhood earn less as adults, are less likely to be in employment, are more likely to engage in criminal or anti-social activities and unhealthy practices, and experience lower life satisfaction.

Poor children tend to have lower educational attainment, and low skills and productivity, which, within the broader picture, limits the nation's economic growth. Moreover, poorer outcomes for children and families place an extra burden and costs on public services, such as healthcare and welfare systems, and the criminal justice system. Children exposed to poverty often do not have access to the opportunities and experiences other less disadvantaged children enjoy. Indeed, growing up in poverty can damage physical, cognitive, social and emotional development, all of which are determinants of economic and social outcomes in adulthood. For example, child poverty is related to unfinished education and non-marital childbearing (Duncan et al., 1998) and reduced future employment opportunities (Blanden & Gibbons, 2006). For these reasons, measures to put an end to poverty not only have the potential to improve children's lives by reducing disadvantages in terms of their opportunities for personal development but may enhance their future life chances. The lower educational attainment, skills and productivity of poor children, in the broader picture, limits the nation's economic growth. Moreover, poorer outcomes for children and families place extra burdens and cost on welfare systems, healthcare and the criminal justice system. For these reasons, eradicating poverty may could produce wider social and economic benefits than the actual experiences of each individual child (Blanden, Hansen & Machin, 2010).

2. Growing up poor and engagement in crime

One of the most ubiquitous pieces of evidence from criminological studies has been the consistent linkage between measures of socioeconomic deprivation or disadvantage and high crime rates (Rutter, Giller, & Hagell, 1998). These findings have been obtained in research carried out in many different countries and by using a range of different measures of economic hardship: income (e.g., Conger et al., 1992; Farrington, 1990); poverty (e.g., Kramer, 2000); socioeconomic status (SES) (e.g., Dodge, Pettit, & Bates, 1994; Farrington, 1990; Sampson & Laub, 1993); and neighborhood disadvantage (e.g., Kazemipiur & Halli, 2000; Ludwig, Duncan, & Hirschfield, 2001). On the basis of this evidence, as a general rule, individuals from socioeconomically disadvantaged and deprived environments show a greater propensity to engage in crime (Fergusson, Swain-Campbell, & Horwood, 2004).

Fergusson et al. (2004) validated the findings of previous research that had suggested the presence of a pervasive linkage between measures of socioeconomic disadvantage and crime (Conger, Conger, Elder, Lorenz, Simons & Whitbeck, 1992; Dodge et al., 1994; Farrington, 1990; Kazemipiur & Halli, 2000; Kramer, 2000; Ludwig et al., 2001; Sampson & Laub, 1993). Using the data from the Christchurch Health and Development Study (CHDS), a longitudinal study of a cohort of 1,265 children born in Christchurch, New Zealand, an urban region in mid-1977 which

followed study participants from birth to age 21 years, the authors examined the interrelationship between socioeconomic status, parenting, peers and delinquency (measured via self-reports and official records). Fergusson et al. (2004) found clear associations between measures of socioeconomic status and rates of violent/property crime, with young people born into low SES families having rates of later crime that were over three times as high when compared with children born into high SES families. In particular, the authors observed that with increasing socioeconomic disadvantage there were corresponding increases in:

1. family adversity, including: higher rates of physical punishment and child abuse; reduced levels of maternal care; changes in parental figures; low attachment to parents; and parental criminality;
2. childhood adjustment problems, including conduct and attention problems;
3. school problems, including: truancy; educational underachievement; school suspension; and low educational achievement;
4. affiliations with delinquent and substance-using peers.

An important issue raised by the findings of Fergusson et al. concerns the various pathways and processes that lead young people from socially disadvantaged backgrounds to be at a higher risk of crime (Rutter et al., 1998). Their study was well placed to examine this issue, having extensive data on family, individual, school and peer factors during childhood and adolescence. Analysis of these data suggested a developmental process in which family, individual, school and peer factors combined cumulatively to place young people from socioeconomically disadvantaged backgrounds at a higher risk of later crime.

However, the empirical evidence for a strong relationship between household economic resources and juvenile criminal participation is rather mixed (Bjerk, 2007). Some estimates of this linkage have often suggested this relationship to be quite weak or even non-existent. Tittle, Villemez, and Smith (1978), conducted an analysis of 35 studies and 363 separate estimates of the class/crime relation and concluded that the assumed correlation between social class and criminality was a “myth”.

In response to this conclusion, a variety of explanations for this apparent riddle have been suggested. Reckless (1967), Clelland and Carter (1980), Johnson (1980) and Brown (1984) examined the hypothesis that the relationship between household economic resources and youth criminal participation may be understated because this relationship is non-linear, with those growing up in households at the bottom of the income distribution being substantially more crime-prone than youths growing up in middle class households. However, in contrast, there are very small differences in criminal proclivity between youths from rich households and youths from the middle class. Moreover, Clelland and Carter (1980) and Hindelang, Hirschi, and Weis (1981)

suggest that the relationship between socio-economic disadvantage and criminal involvement is limited to crimes of a serious nature.

Bjerk (2007) re-examined the empirical relationship between household economic resources and juvenile criminal involvement using data from the National Longitudinal Survey of Youth 1997 (NLSY97). The sampled group consisted of over 8,000 respondents, representative of all American youths born between 1980 and 1984. The analysis suggested that much of the strength of the relationship between household economic resources and youth criminal participation may be obscured by non-linearities in this relationship, the fact that this relationship is isolated to crimes of a serious nature only, and especially because of measurement errors in respect to measuring household economic resources. Adjusting for these issues, the estimated strength of this relationship substantially increases, as the results show a large gap in serious criminal participation between youths from households in the upper reaches of the income distribution scale and youths from households in the lower reaches.

3. Poverty and crime: classical theoretical frameworks

Although associations between exposure to child poverty and crime rates have been well documented, less is known about the mechanisms and processes that lead individuals brought up in socioeconomically disadvantaged environments to commit more crimes (Rutter et al., 1998). However, the role of poverty in the development of delinquency is not a recent issue and different theoretical frameworks have been put forward to explain the key role of household income, economic class more generally speaking, and the development of crime and delinquency. The discussion that follows provides an overview of a number of theoretical frameworks which may explain the association between socio-economic disadvantages and likelihood to commit crimes.

Strain theories (Merton, 1938) conceive the linkages between social structure and individual deviance as a result of strains or imbalances that cause predisposed individuals to engage in deviant acts. Strains experienced by individuals in disadvantaged groups act in ways that predispose them to engage in innovative, but deviant acts to redress these strains. In this way, linkages between social structure and crime reflect the ways in which strains caused by inequitable social structures act to encourage individual-level deviance. The theoretical perspectives developed by Merton are evident in criminological theories that have emphasized the ways in which the experience of social, economic, and related disadvantages act to foster crime development.

A rather different perspective on the linkages between socioeconomic deprivation and crime is offered by differential association theories. These theories suggest that the increased crime rates among individuals from disadvantaged backgrounds are largely due to the fact that these individuals

have greater exposure to criminal peers and environments. While strain theories explain linkages between crime and socioeconomic disadvantage as being due to stress, differential association theory lays greater emphasis on processes relating to peer influence and differing levels of motivation towards crime (Sutherland, 1947; Sutherland & Cressey, 1955).

In more recent years, the social learning model has argued that variations in crime rates are largely the reflection of variations in early learning experiences that act to predispose young people to offending. These theories have emphasized the ways in which patterns of maladaptive child rearing and supervision encourage the development of crime (Farrington, Barnes, & Lambert, 1996; Rowe & Farrington, 1997; Rutter et al., 1998). This model implies that differences in crime rates across different social strata are largely or wholly due to variations in the child rearing practices prevalent in different social strata.

The social control theory proposed by Gottfredson and Hirschi (1990) hypothesized that individuals are naturally disposed to commit crimes to meet unfulfilled needs and seek gratification. This behavior, however, is socially unacceptable and that social bonds constrain these impulses. The connectedness and belonging that individuals have to traditional social institutions, such as jobs or education, reduces deviant behaviors. When these attachments break down, an individual will engage in deviant behavior like committing crimes. Social control theory explains linkages between social disadvantage and crime by a process in which socio-economic inequality weakens networks of informal social control, with this in turn leading to increased crime rates (Fergusson et al., 2004; Ferguson, Bender, Thompson, Maccio, Xie, & Pollio, 2011). The concepts of connectedness and belonging are related to the notion of social capital that sit within an assets-based approach emphasizing the importance of enhancing the protective factors in young people's lives (Pound & Campbell, 2015).

In spite of the development of numerous theoretical frameworks that may explain the associations between socioeconomic disadvantage and crime, little empirical research has been devoted to examining the factors that may intervene between exposure to socioeconomic disadvantage and the development of crime (Fergusson et al., 2004). Furthermore, existing research, in Europe as well as in the US, has hardly addressed the questions of social mechanisms which translate structural disadvantage into individual behavior, nor has it sufficiently looked into the interactions between contextual and individual characteristics and the factors influencing resilience or susceptibility to adverse ecological conditions (Oberwittler, 2007). For these reasons, greater importance has been directed toward generating explanatory models of poverty effects suggested by past research. This has stimulated interest in investigating mediational pathways by means of which negative effects occur.

4. Poverty and crime: Mediating factors

Many studies have been carried out to document the extent of the association between socioeconomic disadvantage and crime and to explore the possible mediating factors and pathways that may lead young people from socioeconomically disadvantaged backgrounds to have a higher crime risk. What follows is a discussion of the body of literature concerning the mediating role of parental practices, neighborhood effects and timing of poverty.

4.1 Poverty and Parenting

According to Rutter et al. (1998) 'the findings across studies of diverse samples are reasonably consistent in showing that much of the risk for antisocial behavior associated with poverty and disadvantage is mediated by the adverse effects of prolonged economic (and associated) stresses on family functioning' (p. 201). Parenting is often cited as key variable related to family functioning, with a large body of evidence indicating that parenting variables mediate a large part of the association between structural factors and crime (Weatherburn & Lind, 2006). In addition, the poverty, divorce, and delinquency literature have deemed inadequate parenting (i.e. harshness, lack of monitoring, inconsistency, and family conflict) important (Conger et al., 1992; Loeber, 1990; McLoyd, 1989). Being poor is linked with chronic psychological distress in parents (McLoyd, 1990). Chronic emotional distress can hinder effective parenting, placing children at risk of impaired emotional and behavioral development (Rutter & Giller, 1983). Bolger, Patterson, Thompson, and Kupersmidt (1995) tested this hypothesis using data from the Charlottesville Longitudinal Study, a study of psycho-social risk and resilience among children in the Charlottesville (Virginia) Public Schools from 1986-1989 with families that experienced significant economic hardship during all, part, or none of the period studied. The impact of poverty on children's behavior problems, popularity, and self-esteem was partially mediated by its association with teacher ratings of maternal involvement.

Reanalyzing data from the Gluecks' study on delinquency, Sampson and Laub (1994) found that ineffective parental practices (i.e. inconsistent, coercive, and harsh discipline, and low supervision) and weak attachment bonds between parent and child mediated the link between the effects of poverty (based on weekly income and reliance on outside aid) and its co-factors on delinquency. Even while controlling for "persistent unobservables" such as antisocial dispositions in both parents and child, family processes of informal social control continued to account for an important part of the variance in adolescent delinquency.

According to Weatherburn and Lind (2006), one of the most compelling pieces of evidence that family factors mediate the effects of structural factors on juvenile involvement in crime has come from the study by Fergusson et al. (2004). Their analysis, as already mentioned, revealed that low socio-economic status was associated with higher rates of physical punishment and child abuse, reduced levels of maternal care, low parental attachment, childhood adjustment problems, poor school performance and truancy, and association with delinquent peers. Importantly, the more factors Fergusson et al. (2004) controlled for in their analysis, the weaker the observed relationship between socioeconomic status and involvement in crime. When all intervening variables were included in the analysis the relationship, between socioeconomic status and involvement in crime completely disappeared. According to Weatherburn and Lind (2006) these studies, taken together, suggest that parental practices can be considered as possible mediators of the effects of poverty on deviance in at-risk youths, especially boys from low-income neighborhoods. The fact that this effect depends, at least in part, on gender, is coherent with the evidence that the association of family economic hardship and negative outcomes for children seems to be more pronounced for boys than for girls.

Moreover, it is likely that adolescents who experienced persistent financial hardship throughout their childhood might be more at risk of poor academic performance by virtue of their limited exposure to environmental stimulation (i.e. books, cultural, scientific, and verbal activities) (Brooks-Gunn, Klebanov, & Liaw, 1995). Alternatively, the effects of economic conditions on academic performance could have been accounted for by the financial pressures they generated and parental responses to such pressures. Conger, Conger and Elder (1997) obtained results suggesting that the effects of financial disadvantage on children's academic performance are largely accounted for by the economic pressures they create as well as by parental responses to such pressures. A large number of studies have reported that parenting under conditions of economic hardship increases the use of restrictions and physical punishments, with a high value placed on obedience, and the absence of reasoning when providing discipline. Many studies illustrated that a supportive home environment and parental warmth or nurturance, when coupled with moderate control, foster children's healthy development and are important components of successful parenting. In the context of poverty, anxiety and depression that can arise for parents may serve as a catalyst for more punitive and inconsistent parenting (Pagani, Boulerice, Vitaro, & Tremblay, 1999).

However, research has found that social support has a potential influence on parents' lives. Social isolation reduces the resources available to the family and allows unstable parenting patterns to develop and continue (Garbarino, 1977). Several studies have indicated that support systems may function as a protective factor of negative life stressors, enhancing adults' psychological well-being

and parenting (Campbell & Lee, 1992; Dressler, 1985; Taylor, Casten, & Flickinger, 1993; Ceballo & McLoyd, 2002).

Additionally, parenting strategies are influenced by several neighborhood attributes, including the degree of neighborhood danger, the community's social cohesiveness, and the availability of institutional resources. Several studies have linked parental use of harsh, disciplinary techniques to neighborhood characteristics, with parents who live in more dangerous neighborhoods reporting more controlling parental practices (Ceballo & McLoyd, 2002).

Empirical work that explores the interplay of neighborhood conditions and parenting practice is relatively sparse. Ceballo and McLoyd (2002), utilizing interview data from a sample of 262 poor, African American single mothers and their seventh- and eighth-grade children, as well as objective data on the respondents' neighborhood, observed that the mothers' ability to make use of the benefits of social support depends, in part, on the severity of environmental stressors that they had to withstand. As neighborhood conditions worsened, the positive relation between emotional support and mothers' nurturing parenting grew weaker. Stressful environmental conditions influence the relation between mothers' social support and parenting strategies. The neighborhood moderation suggests that the positive cushioning provided by social support has clear limitations in poorer, high-crime environments.

4.2 Poverty and neighborhood

Theoretical reasoning as well as common sense have for a long time suggested that living in areas of concentrated poverty restricts the opportunities of residents and aggravates individual disadvantage, fostering sub-cultural orientations and problem behaviors, especially among children and adolescents. The basic assumption of research into neighborhood poverty is that the spatial concentration of social disadvantage aggravates unemployment, psycho-social and health problems or crime. There are two main hypotheses concerning the social mechanisms of this macro-level effect on individual behavior. One hypothesis, which can be seen as an application of social learning theories, focuses on social interactions between people and the reciprocal influence these interactions bear on them. A second hypothesis, grounded in the social disorganization theory (Shaw & McKay, 1969), focuses on the role of neighborhood social capital for preventing or intervening in problem behavior, especially crime.

One of the major theoretical and methodological challenges to studies into neighborhood effects is the problem of self-selection or 'endogenous membership'. If certain characteristics of individuals have been responsible both for their residing in poverty areas and at the same time for the outcome, then the neighborhood effect is likely to be overestimated. Duncan and Raudenbush (2001) give the

example of parents who are less caring about their children and therefore do not consider leaving or avoiding moving to a 'bad' neighborhood. If parenting style is omitted from the explanatory model, the neighborhood effect on adolescent problem behavior would be overestimated. A second challenge for research on neighborhood effects is the fact that residents of disadvantaged areas are not isolated from the outside world, but may have varying degrees of social contacts with people and institutions outside their neighborhood. Although it is often assumed that the daily routines and social interactions of children and adolescents are closely focused on their immediate environment, peer groups and routine activities may or may not spread across neighborhood boundaries, and the spatial orientation of adolescents is a matter of self-selection (Oberwittler, 2007).

According to Oberwittler (2007), research into neighborhood effects in its early phase has neglected the fact that individuals react differently to external influences, and instead has looked to the behavior of residents in an aggregate and 'collectivistic' fashion. The initial main research question was whether there is an overall increase in crime, teenage pregnancies, school dropouts in disadvantaged neighborhoods (e.g. Crane, 1991), not whether and why some individuals are more vulnerable than others to risks coming from the neighborhood context. The latter perspective calls for an interactional approach which takes individual differences in reacting to neighborhood conditions seriously (Conger & Donnellan, 2007; Massey, 2001; Wikström, 2006). Consequently, if contextual conditions do not affect all residents equally, estimating an 'average' effect would actually underestimate the true strength of the contextual effect for vulnerable subgroups of the population. Therefore, it is an important task for neighborhood research to identify individual factors which amplify or attenuate the risks of concentrated disadvantage, and to look for subgroups that tend to be vulnerable or resilient to these risks.

Oberwittler (2007) investigated how adolescents react to living in urban areas of concentrated poverty, and whether contextual effects on psychological strain and delinquent behavior exist, using a cross-sectional youth survey in 61 neighborhoods in two German cities and a rural area (n= ca. 5300). Common sense and theory suggest that adolescents living in concentrated poverty will experience more strain, feel more deprived, be less optimistic and more alienated than other adolescents. As expected, adolescents individually affected by poverty score higher on the scale of relative deprivation than others, yet the differences are not pronounced. Adolescents with an immigrant background do not seem to be influenced by neighborhood conditions in the same way that native adolescents are. Immigrant respondents do not report higher relative deprivation than native respondents, nor do any of the groups living in high poverty areas. In fact, the only marked and significant neighborhood effect is for native welfare recipients living in 'affluent' neighborhoods. This result makes sense, as the concept of 'relative' deprivation implies that the

psychological strain of being poor is more intense in an environment where most other people are affluent. Another remarkable result of this study is that neighborhood effects on delinquency depend on the spatial orientation of adolescents' routine activities and peer networks. This finding contrasts with the assumptions about a ghetto-like situation of inescapable spatial exclusion. There are more factors influencing the spatial orientation of friendship networks. Adolescents, particularly in the most disadvantaged neighborhoods, seem to be divided into two groups. Some youths who tend to have higher educational aspirations are dissatisfied with and feel uncomfortable in their neighborhood and prefer to choose their friends from, and spend their free time in, other neighborhoods. Other youths who tend to have low educational aspirations and often show a taste for unsupervised street life seem quite content with their social environment and spend most of their time in their neighborhood together with their local friends. In sum, Oberwittler concludes that there are some indications that adolescents make choices about the location of their friendship networks and their routine activities. In so doing, they actively decide upon the relevance of their own neighborhood context for their behavior. Consequently, the residential social segregation is supplemented and even reinforced by a self-directed segregation of adolescents' social networks and routine activities.

4.3 Timing of poverty

Research into the relationship between poverty and delinquency has rarely considered the dynamics of poverty and in particular the dual nature of poverty. The concept of a "dual nature of poverty" refers to the fact that while there are a substantial number of people living in persistent, long-term poverty, many people, including children, experience only short-term poverty. Recognition of the dual nature of poverty—with many experiencing only short spells of poverty—leads to the hypothesis that the effects of poverty vary by the duration of poverty. Research in this area demonstrated that the effects of poverty increase as the duration in poverty increases (e.g., Duncan, Brooks-Gunn & Klebanov, 1994). Research on the dynamics of poverty confirms that by using a cross-sectional measure of poverty, it is possible to capture both the persistently poor and some significant portions of the short-term poor as well. Longitudinal data are required to untangle the dual nature of poverty. Farnworth, Thornberry, Krohn & Lizotte (1994) indeed demonstrated that serious forms of delinquency are more likely among the persistently poor and that the relationship between delinquency and class is strongest when class is measured in such a way that it captures a persistent experience of poverty. Moreover, persistent poverty has more negative effects on children's development (McLoyd, 1998).

Compared to children who never experienced poverty, Bolger et al. (1995) found that persistent poverty, followed by transitory poverty, had a negative effect on psycho-social adjustment (peer relations, behavior problems, and self-esteem) in a sub-sample of children from the Charlottesville Longitudinal Study.

However, the risk associated with persistent poverty did not exceed that of intermittent poverty. This relationship limited to intermittent poverty may be explained by the fact that perhaps children living in low-income neighborhoods are more sensitive to intermittent states of economic deprivation because they experienced the pleasure and ease of "having" and then "not having" at times. Thus, they might have felt a kind of frustration that boys from stable economic states would not have experienced during adolescence.

The effect of poverty at different stages in a child's life has been the subject of scholarly research. Brooks-Gunn and Duncan (1997) argued that the effect of poverty is likely to vary (in degree and in mechanism) depending on the stage of childhood in which it is experienced. In a 1998 review of this literature, Duncan *et al.* draw three important conclusions. Firstly, they conclude the timing of poverty does matter. Secondly, they find that poverty in early childhood is most important. Finally, the literature thus far indicates that poverty has less of a relationship to behavioral outcomes than to achievement and ability. For instance, Duncan et al. (1998) find that the timing of poverty significantly affected both years of school completed and high school graduation, with family income during early childhood having a greater impact than income during middle childhood.

Evidence also points to the potential interaction effect between timing and the duration of poverty. One study reports that while long-term poverty has a greater impact on cognitive development than short-term poverty, cognitive deficits are more likely to result if poverty had been experienced prior to age five than later in childhood (Brooks-Gunn & Duncan, 1997). In contrast, "emotional outcomes" are related to growing up in poverty, but the impact does not vary by level or timing of poverty.

5. From scientific analysis to policy initiatives

a) Parents' Incomes and Children's Outcomes

Does having more money in the household produce better child outcomes over time? Alternatively, does growing up in poverty produce worse outcomes for children? It is difficult to answer these questions because household incomes are not exogenously provided to families. Income crucially depends on parental characteristics, both observed and unobserved. Therefore, simply observing that children from high- (low-) income families tend to have positive (negative) educational, income, and employment outcomes in young adulthood tells us little about the actual causation.

Parents transmit to their genetic offspring some of their innate abilities, and the observed correlation between parental incomes and child outcomes later in life may simply reflect this intergenerational transfer and not the effect of income, *per se* (Akee, Copeland, Keeler, Angold, & Costello, 2010).

Researchers have sought to overcome this endogeneity problem by using a number of instrumental variables and fixed effects techniques that attempt to isolate the difference in household incomes that are not due to parental characteristics or ability. Akee et al. (2010) attempted to overcome the standard household income endogeneity problem directly. They examined the effect of a cash transfer for children in poor American Indian households, and their findings could also be instructive for other poor, semi-rural communities in the United States. The research design allowed for the evaluation of the effect along an entire distribution of household incomes—a rarity in such studies. They observed households in which incomes are increased exogenously and permanently through a governmental transfer program regardless of parental human capital, ability, or other household characteristics. In the study, the authors follow children who reside in households with and without exogenously increased incomes. They compared educational attainment and criminality outcomes from the youngest age cohort to the oldest age cohort to determine the effect of residing in a household with exogenously higher incomes.

Their research question is a general one that is of interest for other high poverty groups: how effective are anti-poverty, cash-transfer programs in improving the outcomes of household children? Akee et al. found that children who reside the longest in households with exogenously increased incomes tend to do better later in life on several outcome measures. A rough estimate indicates that an average of \$4,000 additional household income for the poorest families results in an additional year of education for the child from a treated household. Additionally, using administrative records on criminal arrests, Akee et al. found that these same children have a statistically significant lower incidence of criminal behavior in terms of committing minor offenses. The additional household income reduces the incidence of ever having committed a minor crime by 22 percent at ages 16 and 17 for the children from treated households. These children also self-report that they have a lower probability of having dealt drugs than children from households unaffected by the additional income. As expected, the poorest households in the survey experience the largest gains in terms of child outcomes. Separating the data according to prior poverty status, the authors observed that many of these results have been driven by the poorer households.

The researchers explored two potential mechanisms that may translate higher household incomes into better child outcomes: parental quality and parental time. The additional income may allow the poorer households to move away from full-time employment toward part-time employment, thus allowing for more child care. This does not appear to happen as parents do not reduce their working

time. Akee et al. found that parental interactions and experiences with the children in the affected households tend to improve dramatically. Both child and parent reported improved behavioral effects and parent-child interactions relative to unaffected households. Parent behavior, akin to that of the child, tends to improve vis-à-vis criminality.

This study confirms the results of previous research which has found a direct relationship between poverty and parenting ability. Moreover, there is at least some indication that one of the mechanisms responsible for translating higher household incomes into better child outcomes is through increased parental quality (Serbati, Pivetti & Gioga, 2015), while parenting time does not appear to have been an important causal factor.

b) Theory implications, policy impact and methodological issue

As we have seen, there are a number of psychological and sociological explanations about the linkages between SES and crime. The issue of the linkage between growing up poor and crime is relevant not only to the criminological theory but also has implications for prevention policy. Theories have the potential to lead to improvements to children's lives, not only by improving the understanding of the factors and pathways involved in the development of antisocial behavior, but by providing a depth of understanding and insights useful in designing interventions.

There is prospective, longitudinal evidence showing that increased economic stress reduces the quality of parenting children receive and that improvements in the quality of parenting children receive can substantially reduce the risk of delinquency. These research findings can be interpreted as being consistent with a range of theoretical positions. However, although the results do not lead to strong tests of different theoretical frameworks, they clearly imply that effective policies to address linkages between SES and crime will require interventions that: a) reduce the exposure of low SES children to adverse family environments; b) intervene early to address the development of early behavioral problems; and c) act to mitigate the effects of exposure to deviant peer groups. It is likely that an effective approach must be a multi-compartmental strategy that combines population-level change in factors such as unemployment, family income and housing with targeted interventions designed to meet the needs of at-risk children and their families who are disproportionately represented in low SES groups. In this respect, there has been a growing literature on the ways in which a range of programs, including family support, parenting programs, and family economic support, may work to mitigate risks of externalizing behaviors and associated difficulties in young people (Fergusson et al., 2004). Measures could nullify or attenuate the corrosive effects of poverty, family dissolution, geographic mobility or ethnic heterogeneity on parenting, and include programs and policies designed to reduce social isolation; strengthen the

parent–child bond; provide practical and emotional support to parents (particularly in cases of family dissolution) and assist parents in the process of childrearing. They could also include programs designed to assist adolescents and teenagers overcome the social, educational or intellectual handicaps that economic and social disadvantage might have conferred (Weatherburn & Lind, 2006).

In view of the importance attributed to poverty as a risk factor for children's maladjustment by social scientists and its implications for social welfare policies, studies on growing up poor need to be more convincing (Pagani et al., 1999). Nevertheless, in situations where there are multiple symptoms and multiple causes, the type of causal analysis that social science has been able to achieve is unlikely to provide definitive answers. Social science almost never is able to show that one factor in isolation from all other factors is the cause of a phenomenon. Poverty and crime possibly could be associated because they are mutually dependent on some third factor. Despite the weaknesses of the social-scientific knowledge and although the findings do not lead to strong tests of different theoretical frameworks and can be interpreted as being consistent with a range of theoretical positions, social science should be the principal tool for the development of sound policy. According to Rein and Winship (1999), social policy needs to be based on "weak" as opposed to "strong" causal theories. What is wrong, according these authors, is the commitment to "strong" causal thinking as well as the danger of overselling policies, basing them on potentially fragile rationales, and over-generalizing the results. "Strong" causal analysis holds the promise of providing an objective rationale for a policy. If the causal analysis is believed, then it can avoid confronting other arguments for a specific policy. In a world of weak causal relations, policy should have two objectives. First, policy should be designed to directly intervene. If you want the poor to have better medical care, then provide them with better access. If you want to improve their financial status, then transfer funds to them directly. Indirect interventions are unlikely to produce any effects. Second, at least at this time, poverty policies can be much more effective at improving the conditions of poverty than in eliminating its "root" causes, unless poverty is considered as a lack of income and not as a behavioral problem linked to family structure or social exclusion. The second consequence of having "weak" causal theories is the recognition that a society need to develop consensus on a set of values for dealing with the poor. This consensus must be based on moral arguments about justice and fairness combined with social-scientific knowledge. It is unlikely that social science alone is sufficient for policy-making. Normative and moral factors that fall beyond science also need to be considered.

References

- Akee, R.K.Q., Copeland, W.E., Keeler, G., Angold, A., & Costello E. J. (2010), Parents' Incomes and Children's Outcomes: A Quasi-Experiment Using Transfer Payments from Casino Profits, *American Economic Journal: Applied Economics*, 2(1), 86–115
- Bjerk, D. (2007). Measuring the relationship between youth criminal participation and household economic resources. *Journal of Quantitative Criminology*, 23(1), 23-39. <http://dx.doi.org/10.1007/s10940-006-9017-8>
- Blanden, J. and Gibbons, S. (2006). *The Persistence of Poverty: A View from Two British Cohorts*, Joseph Rowntree Report, Bristol: Policy Press.
- Blanden, J., Hansen, K. & Machin, S. (2010). The Economic Cost of Growing Up Poor: Estimating the GDP Loss Associated with Child Poverty. *Fiscal Studies*, 31(3), 289–311. <http://dx.doi.org/10.1111/j.1475-5890.2010.00116.x>
- Blau, D. (1999). The effect of income on child development. *Review of Economics and Statistics*, 81, 261–76. <http://dx.doi.org/10.1162/003465399558067>
- Bolger, K.E., Patterson, C.J., Thompson, W.W., & Kupersmidt, J.B. (1995). Psychosocial adjustment among children experiencing persistent and intermittent family economic hardship. *Child Development*, 66, 1107–1129. <http://dx.doi.org/10.2307/1131802>
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The future of children*, 55-71. <http://dx.doi.org/10.2307/1602387>
- Brooks-Gunn, J., Klebanov, P. K., & Liaw, F. R. (1995). The learning, physical, and emotional environment of the home in the context of poverty: The Infant Health and Development Program. *Children and Youth Services Review*, 17(1), 251-276. [http://dx.doi.org/10.1016/0190-7409\(95\)00011-Z](http://dx.doi.org/10.1016/0190-7409(95)00011-Z)
- Brown, S. (1984). Social class, child maltreatment, and delinquent behavior. *Criminology*, 22, 259–278. <http://dx.doi.org/10.1111/j.1745-9125.1984.tb00300.x>
- Campbell, K. E., & Lee, B. A. (1992). Sources of personal neighbor networks: social integration, need, or time?. *Social Forces*, 70(4), 1077-1100. <http://dx.doi.org/10.2307/2580202>
- Ceballo, R., & McLoyd, V. C. (2002). Social support and parenting in poor, dangerous neighborhoods. *Child Development*, 1310-1321. <http://dx.doi.org/10.1111/1467-8624.00473>
- Clelland, D., & Carter, T.J. (1980). The new myth of class and crime. *Criminology*, 18, 319–336. <http://dx.doi.org/10.1111/j.1745-9125.1980.tb01368.x>
- Conger, R. D., Conger, K. J., & Elder Jr., G. H. (1997). Family economic hardship and adolescent adjustment: Mediating and moderating processes. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 288-310). New York: Russell Sage Foundation.
- Conger, R. D. & Donnellan, M. B. (2007). An interactionist perspective on the socioeconomic context of human development. *Annual Review of Psychology*, 58, 175–199. <http://dx.doi.org/10.1146/annurev.psych.58.110405.085551>
- Conger, R.D., Conger, K.J., Elder, G.H., Lorenz, F.O., Simons, R.L., & Whitbeck, L.B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, 63, 526– 541. <http://dx.doi.org/10.2307/1131344>
- Crane, J. (1991). The epidemic theory of ghettos and neighborhood effects on dropping out and teenage childbearing. *American Journal of Sociology*, 96, 1226–1259. <http://dx.doi.org/10.1086/229654>

- Dodge, K.A., Pettit, G.S., & Bates, J.E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. *Child Development*, 65, 649–665. <http://dx.doi.org/10.2307/1131407>
- Dressler, W. W. (1985). Extended family relationships, social support, and mental health in a southern black community. *Journal of health and social behavior*, 39-48. <http://dx.doi.org/10.2307/2136725>
- Duncan, G. J., & Raudenbush, S. W. (2001) Neighborhoods and adolescent development: how can we determine the links?. In A. Booth & A. C. Crouter (Eds) *Does it Take a Village? Community Effects on Children, Adolescents, and Families* (pp. 105–136). Mahwah, NJ: Erlbaum.
- Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic deprivation and early childhood development. *Child Development*, 65, 296-318. <http://dx.doi.org/10.2307/1131385>
- Duncan, G., Yeung, W., Brooks-Gunn, J. and Smith, J. (1998). How much does childhood poverty affect children's life chances? *American Sociological Review*, 63, 406–23. <http://dx.doi.org/10.2307/2657556>
- Farnworth, M., Thornberry, T. P., Krohn, M. D., & Lizotte, A. J. (1994). Measurement in the study of class and delinquency: Integrating theory and research. *Journal of research in crime and delinquency*, 31(1), 32-61. <http://dx.doi.org/10.1177/0022427894031001002>
- Farrington, D.P. (1990). Implications of criminal career research for the prevention of offending. *Journal of Adolescence*, 13, 93–113. [http://dx.doi.org/10.1016/0140-1971\(90\)90001-N](http://dx.doi.org/10.1016/0140-1971(90)90001-N)
- Farrington, D.P., Barnes, G.C., & Lambert, S. (1996). The concentration of offending in families. *Legal and Criminological Psychology*, 1, 47–63. <http://dx.doi.org/10.1111/j.2044-8333.1996.tb00306.x>
- Fergusson, D., Swain-Campbell, N., & Horwood J. (2004). How does childhood economic disadvantage lead to crime? *Journal of Child Psychology and Psychiatry* 45(5), 956–966. <http://dx.doi.org/10.1111/j.1469-7610.2004.t01-1-00288.x>
- Ferguson, K., Bender, K., Thompson, S., Maccio, E., Xie, B., & Pollio, D. (2011). Social control correlates of arrest behavior among homeless youth in five U.S. cities. *Violence and Victims*, 26(5), 648–668. <http://dx.doi.org/10.1891/0886-6708.26.5.648>
- Garbarino, J. (1977). The price of privacy in the social dynamics of child abuse. *Child Welfare: Journal of Policy, Practice, and Program*, 56(9), 565-575.
- Gottfredson, M.R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.
- Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings. *Journal of Economic Literature*, 33, 1829–78.
- Hindelang, M., Hirschi, T., & Weis, J. (1981). *Measuring delinquency*. Sage Publications, Beverly Hills.
- Johnson, R. (1980). Social class and delinquent behavior. *Criminology*, 18, 86–93. <http://dx.doi.org/10.1111/j.1745-9125.1980.tb01349.x>
- Kazemipiur, A., & Halli, S.S. (2000). Neighborhood poverty in Canadian cities. *Canadian Journal of Sociology*, 25, 369–379. <http://dx.doi.org/10.2307/3341647>
- Kramer, R.C. (2000). Poverty, inequality, and youth violence. *American Academy of Political and Social Science*, 567, 123–139. <http://dx.doi.org/10.1177/0002716200567001009>
- Loeber, R. (1990). Development and risk factors of juvenile antisocial behavior and delinquency. *Clinical Psychology Review*, 10(1), 1-41. [http://dx.doi.org/10.1016/0272-7358\(90\)90105-J](http://dx.doi.org/10.1016/0272-7358(90)90105-J)
- Ludwig, J., Duncan, G.J., & Hirschfield, P. (2001). Urban poverty and juvenile crime: Evidence from a randomized housing-mobility experiment. *The Quarterly Journal of Economics*, May, 655–679. <http://dx.doi.org/10.1162/00335530151144122>

- Massey, D. S. (2001). The prodigal paradigm returns: Ecology comes back to sociology. In A. Booth & A. C. Crouter (Eds) *Does it Take a Village? Community Effects on Children, Adolescents, and Families* (pp. 41–48). Psychology Press
- Mayer, S. (1997). *What Money Can't Buy: Family Income and Children's Life Chances*. Cambridge, MA: Harvard University Press.
- McLoyd, V. C. (1989). Socialization and development in a changing economy: The effects of paternal job and income loss on children. *American Psychologist*, 44(2), 293. <http://dx.doi.org/10.1037/0003-066X.44.2.293>
- McLoyd, V.C., & Wilson, L. (1990). Maternal behaviour, social support, and economic conditions as predictors of distress in children. In V.C. McLoyd & C.A. Flanagan (Eds.), *Economic stress: Effects on family life and child development, new directions for child development* (pp. 49–70). San Francisco: Jossey-Bass.
- Merton, R.K. (1938). Social structure and anomie. *American Sociological Review*, 3, 672–682. <http://dx.doi.org/10.2307/2084686>
- Oberwittler, D. (2007). The Effects of Neighborhood Poverty on Adolescent Problem Behaviors: A Multi-level Analysis Differentiated by Gender and Ethnicity. *Housing Studies*, 22(5), 781–803. <http://dx.doi.org/10.1080/02673030701474727>
- Pagani, L., Boulerice, B., Vitaro, F., & Tremblay R. E. (1999). Effects of Poverty on Academic Failure and Delinquency in Boys: A Change and Process Model Approach. *Journal of Child Psychology and Psychiatry*, 40(8), 1209-1219. <http://dx.doi.org/10.1111/1469-7610.00537>
- Pound P., & Campbell R. (2015). Locating and applying sociological theories of risk-taking to develop public health interventions for adolescents. *Health Sociology Review*, 24(1), 64–80. <http://dx.doi.org/10.1080/14461242.2015.1008537>
- Reckless W (1967) *The crime problem*, 4th edn. Appleton-Century-Crofts, New York
- Rein, M., & Winship, C. (1999). The dangers of "strong" causal reasoning in social policy. *Society*, 36(5), 38-46. <http://dx.doi.org/10.1007/BF02686150>
- Rowe, D.C., & Farrington, D.P. (1997). The familial transmission of criminal convictions. *Criminology*, 35, 177–201. <http://dx.doi.org/10.1111/j.1745-9125.1997.tb00874.x>
- Rutter, M., & Giller, H. (1983). *Juvenile delinquency: Trends and perspectives*. New York: Guilford Publications.
- Rutter, M., Giller, H., & Hagell, A. (1998). *Antisocial behavior by young people*. Cambridge, UK: Cambridge University Press.
- Sampson, R.J., & Laub, J.H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge, MA: Harvard University Press.
- Sampson, R. J., & Laub, J. H. (1994). Urban poverty and the family context of delinquency: A new look at structure and process in a classic study. *Child development*, 65(2), 523-540. <http://dx.doi.org/10.2307/1131400>
- Serbati, S., Pivetti, M. & Gioga, G. (2015). Child Well-Being Scales (CWBS) in the assessment of families and children in home-care intervention: An empirical study. *Child & Family Social Work*, 20(4), 446-458. doi: 10.1111/cfs.12094
- Shaw, C., & McKay, H. D. (1969 [1942]) *Juvenile Delinquency and Urban Areas*. Chicago: Chicago University Press.
- Solon, G. (1999). Intergenerational mobility in the labor market. In O. Ashenfelter and D. Card (Eds), *Handbook of Labor Economics*, vol. 3A, Amsterdam: North Holland.
- Sutherland, E.H. (1947). *Principles of criminology* (4th edn). Philadelphia, PA: Lippincott.
- Sutherland, E.H., & Cressey, D. (1955). *Principles of criminology*. Philadelphia, PA: Lippincott.

- Taylor, R. D., Casten, R., & Flickinger, S. M. (1993). Influence of kinship social support on the parenting experiences and psychosocial adjustment of African-American adolescents. *Developmental Psychology*, 29(2), 382. <http://dx.doi.org/10.1037/0012-1649.29.2.382>
- Tittle C, Villemez WJ., & Smith D. (1978). The myth of social class and criminality: an empirical assessment of the empirical evidence. *American Sociological Review*, 43, 643–656. <http://dx.doi.org/10.2307/2094541>
- Weatherburn, D., & Lind, B. (2006). What mediates the macro-level effects of economic and social stress on crime?. *Australian & New Zealand Journal of Criminology*, 39(3), 384-397. <http://dx.doi.org/10.1375/acri.39.3.384>
- Wikström, P.-O. H. (2006) Individuals, settings and acts of crime. Situational mechanisms and the explanation of crime. In P.-O. H. Wikström & R. J. Sampson (Eds) *Crime and its Explanation: Contexts, Mechanisms and Development* (Cambridge: Cambridge University Press). <http://dx.doi.org/10.1017/CBO9780511489341>