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Charting pathways to intervention: the cracow risk/needs assessment instrument and professor David P. Farrington's theoretical influence

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Abstract

Professor David P. Farrington had a significant theoretical and policy influence on Professor Raymond Corrado's work, as evidenced in his initial research and scholarly publications. In this article, we focus on discussions surrounding Canada's eventual implementation of the Young Offenders Act in 1984 and the preceding youth justice acts (e.g., JDA), Professor Corrado's subsequent work on serious and violent young offenders, and how this connects back to Professor Farrington's contributions and theoretical influence.

We highlight Farrington's groundbreaking longitudinal cohort studies, including his extensive and unparalleled publications that began with the Cambridge Study in Delinquent Development, as well as the Montreal Longitudinal and Experimental Study and the Dunedin Study. Theoretically, Professor Farrington was among the first scholars to promote developmental psychological and life-course perspectives that challenged the dominant single-construct theories of crime at that time.

His influence on Professor Corrado was pivotal in the creation of the Cracow Risk/Needs Instrument (CI) and related validation studies. Dr. Corrado and colleagues designed the CI tool to help agencies construct individualized case management plans for serious and violent young offenders. Lastly, Professor Farrington's theoretical perspective informed Professor Corrado's "seven pathway models," which emphasize the distinct developmental trajectories that necessitate tailored interventions targeting the central risk/needs factor.

Keywords: Professor David P. Farrington, developmental and life-course criminology.

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Charting pathways to intervention: the cracow risk/needs assessment instrument and professor David P. Farrington's theoretical influence

I first met Professor David P. Farrington in 1981 in Ottawa, Canada, where we were both brought in to review the literature on the minimum age of legal responsibility, a matter initiated by the Young Offenders Act (YOA) of 1984. Policymakers intended the YOA to replace the nearly 75-year-old Juvenile Delinquents Act (JDA) of 1908. At that time, I was part of a university-led, cross-provincial research project examining the existing JDA. Our primary goal was to describe how the six provinces involved in the study had implemented the JDA and to assess the perspectives of key interest groups, including police, youth probation officers, defence attorneys, prosecutors, and judges (Corrado et al., 1983). This controversial policy issue revolved around the proposed bill's assertion that youth were capable of rational choice and, as such, deserved the same due process as adults.

In contrast, the JDA was based on the Welfare Model, which assumed that children and adolescents lacked the capacity for rational choice due to innate immaturity and negative influences from family and community. As a result, they were neither legally processed nor subjected to punishment for their "non-crimes" or delinquent behaviours. Instead, juvenile courts were generally required to base any interventions on the "best interests" of the youth (see Corrado et al., 2006). By the late 1970s, David had already established himself as a leading scholar in developmental theoretical perspectives and related policies in youth justice. His recognition largely stemmed from his involvement in the Cambridge Study in Delinquent Development (CSDD), which was initiated in 1961 by Professor Donald West. This study focused on 411 families in a working-class neighborhood in East London. In 1982, David became the principal investigator of this study (see Farrington et al., 2021).

As a psychologist and criminologist, David introduced a more nuanced developmental perspective on children's and adolescents' decision-making processes, challenging the then-dominant sociological-psychological framework epitomized by Hirschi's Social Bond theory, which emerged in the late 1960s (Hirschi, 1969). Throughout his year in Ottawa, I had the opportunity to discuss several theoretical themes with him, particularly focusing on my question about why Social Bond Theory and the broader criminological developmental perspective overlooked key personality constructs from the extensive body of developmental psychology theoretical perspective. Most importantly, Hirschi and others emphasized the construct of temperament-related impulsivity, or low self-control, independent of a developmental stage in explaining delinquency, including serious and violent offending. This narrow and time-invariant focus on low self-control culminated in Gottfredson and Hirschi's 1990 seminal and brilliant book, *A General Theory of Crime*, which sparked ongoing debates about the validity of a predominantly single-construct theory of crime.

When I met David, I was working with a psychologist, Professor Ron Roesch, my colleague in the School of Criminology, who also held a joint appointment in the Psychology Department at Simon Fraser University (SFU). Like David, Ron and I were profoundly influenced by the research design and validity issues initially raised by the renowned psychologist and methodologist Professor Donald Campbell (Cook & Campbell, 1979) in the late 1960s, and, subsequently, by his co-author, psychologist Professor Tom Cook at Northwestern University in the 1970s. These validity concerns influenced scholars to integrate psychological constructs into theories of crime and delinquency. Such constructs allowed for internal and external validity assessments, including, most importantly, construct validity. David, Ron, and I shared the view that the early sociological theories of crime largely dismissed the psychological basis of crime, relegating it to an unknowable "black box" – that is, a methodological acknowledgement that deeply embedded motivations were largely beyond analytic reach within this framework. Secondly, simple constructs such as impulsivity and low self-control were inadequate unless subjected to a range of validity assessments. Professor Alfred Blumstein, Dr. Jacqueline Cohen, and David (1988) expanded their earlier assertions regarding the key developmental construct of the "career criminal," which had been introduced in the 1970s. Hirschi (1969), initially on his own and later with Gottfredson (Gottfredson & Hirschi, 1986), challenged the utility of this construct and the use of large, costly cohort studies to validate its sequential developmental stage assertions. Instead, they argued that cross-sectional studies were sufficient and provided overwhelming support for their claim that the age-invariant construct of low self-control was central to understanding delinquency and criminality across all age stages.

Building on our mutual interests in developmental psychology theories of delinquency and crime and the theoretical debates mentioned above, David nominated me for a visiting scholar position at the Institute of Criminology at the University of Cambridge for the 1985-1986 academic year. David's influence was also evident in Canada, particularly at the University of Montreal, where renowned scholars, Professors Marcel Frechette, Marc Le Blanc (School of Criminology), and Richard E. Tremblay were prominent (Department of Psychology).

The CSDD project and David's collaborations with Professor Le Blanc, beginning with the 1980 Canadian Juvenile Justice Project, led to Professor Le Blanc and colleagues' large cohort study of children and youth in Montreal, subsequently expanding to Quebec (see Le Blanc & Frechette, 1989). Around the same time, Professor Trembley initiated his developmental cohort study of aggression and violence, called the Montreal Longitudinal and Experimental Study (MLES), utilizing a large Montreal sample of families with toddlers in 1984 (see Tremblay et al., 2003). During my time with David at Cambridge and in our subsequent discussions, it became evident that the research designs of these delinquency and child cohort studies, understandably, tended to under-sample serious and violent offenders. Similarly, despite its large and near-representative sample, Arseneault et al.'s (2000) renowned Dunedin longitudinal cohort study in New Zealand also had a limited proportion of seriously violent offenders. These limitations raised two key questions for me: (1) are developmental theories of delinquency inadequate to explain serious and violent offending? and (2) do the variables associated with general delinquency differ in type, sequences, or intensity for serious and violent offenders? And, if so, does this necessitate distinct interventions to mitigate the likelihood of serious and violent offending trajectories?

By the early 1990s, serious and violent offending had become a contentious political and policy issue in Canada. While there was debate over whether serious and violent offending had increased during the 1980s and early 1990s, our research supported the view that such an increase did occur (Corrado & Markwart, 1994). Additionally, there was an emergence in both major adult gang activities - partly involving more recent immigrant groups - and violent informal street gangs or groups comprising of primarily youth members. Moreover, several notorious incidents involving excessively brutal murders committed by repeat violent young offenders captured public attention. These events fueled an intense political and media-driven debate advocating for the replacement of the YOA with legislation that imposed lengthier and more severe sentences for young offenders. The debate grew so intense that it became a key political issue. The Reform Party was subsequently created, and among its major platform objectives was the replacement of the YOA with a far more punitive youth justice law aimed at protecting the public (Youth Criminal Justice Act, 2002).

In the mid-1990s, Ron and I approached several psychologists and psychiatrists specializing in youth violence in Canada, the United States, and Western Europe to propose a North Atlantic Treaty Organization (NATO) research workshop grant aimed at developing a risk/needs assessment instrument for serious and violent young offenders. Of course, David readily agreed to participate, along with his colleague, Professor Friedrich Lösel, who was then the Director of Psychology at the University of Erlangen-Nuremberg. We co-led the successful NATO application with Dr. Giovanni Traverso, an Italian psychiatrist from the University of Siena, and psychologist Dr. Theresa Wojekowski from Jagiellonian University in Kraków, Poland. Professor Stephen D. Hart, a clinical psychologist from the psychology department at SFU, also played a major role in constructing the Cracow instrument discussed in the next section, specifically focusing on personality disorders, most importantly, psychopathy. David also began to focus his cohort research on interventions for youth involved in criminal activities and within the youth correctional system (Farrington, 1994). His initial emphasis was on older children since criminal responsibility in the UK began at age eight. However, through his involvement in the Pittsburgh studies with psychologist Dr. Rolf Loeber and colleagues, as well as with other cohort studies internationally, he expanded his research to include an array of risk profiles and intervention strategies (see Ahonen et al., 2021).

The NATO workshop team agreed that a policy priority regarding serious and violent young offenders should not be the development of a risk prediction instrument for criminal justice agencies. Rather, given the substantial body of developmental psychology and developmental criminology research on risks for serious and violent offending, the focus should be on creating an intervention and case management tool. Such an instrument would be most helpful for families with at-risk youth and for multi-agency programs responsible for at-risk children, adolescents and even young adults. This tool would support individualized case planning and management by tailoring intervention programs to align with each youth's specific risk and needs profile, reducing the likelihood of subsequent serious or violent offending. The initial draft of this instrument was presented by Corrado's team in the NATO-sponsored volume (Corrado et al., 2002; Odgers et al., 2002). Two subsequent validation studies were conducted by Lösel et al. (2025), Lussier et al. (2011), and Wallner et al. (2018) which will be discussed in the next section.

Cracow Risk/Needs Assessment Instrument for Serious and Violent Offenders: Outline and Validity Studies

Farrington's developmental theoretical framework was instrumental in creating the comprehensive risk/needs intervention and case management tool, the Cracow Instrument (Lussier et al., 2011). The CI was designed to help agencies identify children and adolescents at risk of, or currently involved in, serious and violent behaviour using indicators from five major developmental stages developmental stages, see Figure 1 (Lussier et al., 2011). Each stage includes unique age-related risk and needs indicators that can accumulate over time (Lussier et al., 2011; see Figure 1). The CI is designed to provide agencies with a template for individualized intervention and prevention plans. The utility of the CI has been examined by Wallner et al. (2018), Lussier et al. (2011), and Lösel et al. (2025) who all found evidence to support the CI in

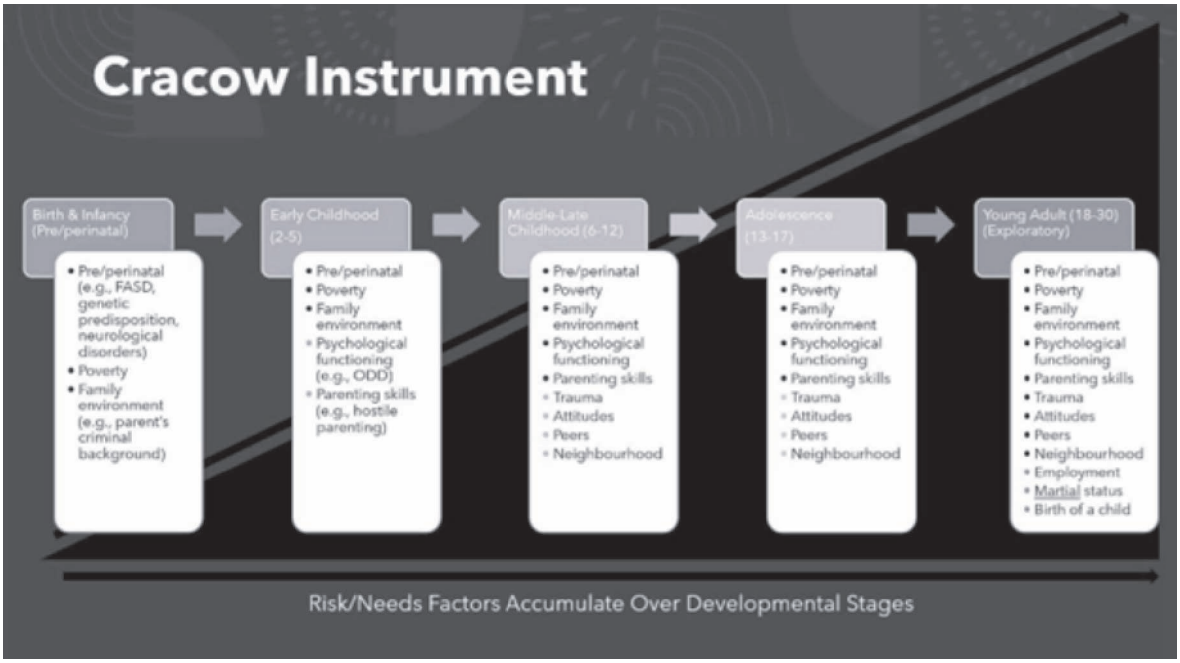

Figure 1: Cracow Instrument

predicting antisocial development in children. For instance, highly aggressive children tend to present multiple and accumulative risk factors such as poor parenting skills/education, economic dependency, and prenatal and perinatal risk factors (see Lussier et al., 2011).

Integrated Developmental and Life-Course Theories of Offending and Farrington's Integrated Cognitive Anti-Social Potential Theory: Influence on Corrado et al. (2019) Seven Pathway Models for Interventions

By 2005, Farrington had formalized his extensive research on the risk factors for delinquency and crime, incorporating factors and models developed by his contemporaries, such as Piquero and Moffitt (2005), Tremblay et al. (2003), Loeber et al. (1990), Catalano et al. (2005), Le Blanc (2005), Sampson and Laub (2005), and Wikström (2005), among others. However, in my discussions with David and Professor Friedrich Lösel, I raised a theoretical question: are there distinctive developmental pathways to serious violent offending, such as violence, sexual offences, and homicide? This issue is particularly relevant in Canada, where the Youth Criminal Justice Act (2002) prioritizes limiting major prison sentences to these types of major violent crimes. The act also emphasizes intervention programs within youth corrections facilities and subsequent reintegration into the community upon release. Another concern in youth correctional institutions across Canadian provinces were the disproportionate number of Indigenous violent offenders receiving longer prison sentences and the overall overrepresentation of Indigenous people in custody (Department of Justice, n.d.). Additionally, there were increasing challenges in providing comprehensive needs assessments and institution-based and community-based case planning, especially for youth with developmental neurological disorders such as attention-deficit/hyperactive disorder, fetal alcohol spectrum disorder and autism. Similar policy issues were also evident in Australian correctional institutions, and specific USA states with large populations of youth gang members among imprisoned offenders, such as California and Illinois (e.g., Fisher et al., 2008).

The Office of the Representative for Children and Youth in British Columbia, a politically independent oversight institution, approached me to undertake a project to determine whether distinct risk/needs pathways could be identified among children and youth who had been involved in government intervention programs designed to support children and youth in need of protection. A specific concern was whether there was a disproportionate number of young offenders in custody who had previously been involved in the child welfare system, particularly those placed in foster care. My team and I were granted unprecedented access to confidential information from the RCYBC files, including data from key ministries, such as the Ministry of Education and Child Care, the Ministry of Children and Family Development, and youth corrections services. Based on the primary potential causal risk factor for serious and violent offending, six pathways were identified from both aggregate analyses and several in-depth case analyses (see Corrado et al., 2015).

Furthermore, for each risk pathway, similar to the Cracow instrument, a series of interventions and resources were outlined for potential case planning at various levels (i.e., administrative, policy, and individual management/supervision; see Corrado et al., 2015). In addition to the CI, my work with Dr. Lauren F. Freedman, Dr. Alan Leschied, and Professor Jennifer Wong (e.g.,

Corrado et al., 2015; Freedman et al., 2017) highlighted the importance of also identifying distinct developmental pathways associated with serious and violent offending. Each pathway represents a unique trajectory requiring tailored intervention strategies to address primary causal risk factors. These factors can trigger a cascade of events that increase the likelihood of criminal justice involvement. We identified six pathways, including the prenatal/neurological risk pathway, the childhood personality disorder pathway, the extreme childhood temperament pathway, the childhood maltreatment pathway, the adolescent onset pathway, and the post-childhood trauma pathway.

For example, the childhood personality disorder pathway suggests that disorders such as Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), or the presence of early onset persistent callous-unemotional traits typically emerge in the post-toddler stage. In this context, family-based risk factors, such as inconsistent discipline, family breakdown - can have an aggravating effect, therefore, a focus on caregiver information and caregiver resources and programs are helpful in responding to early signs of a personality disorder (e.g., Corrado et al., 2015).

Based on our current project in Surrey, outlined below, a seventh pathway has been hypothesized, i.e., the cultural gang pathway to youth criminal justice system involvement.

Surrey Youth Gang Project

The gang pathway has historically been associated with the most prolific and sustained aggression, both in practise and theoretically. Much of the existing gang research has overwhelmingly focused on the cultural, structural, and organizational aspects of gangs situated in the USA. Arguably, David's theory does not specifically aim to explain the complex gang phenomenon, as the focus is on delinquency and crime more broadly, however, it does encompass many risk factors commonly linked to gang involvement, such as neighborhood poverty, instability, and family criminality (Farrington et al., 2017). In British Columbia since 1990s, the classic model of risk factors for gang involvement does not seem to apply to the emergence of the most notorious and violent largely adult organized crime gangs. Most importantly, mixed race/ethnic second-generation young men from middle- or high-income families from largely stable communities and families have been involved in formal gangs mainly in the Greater Vancouver metropolitan region but increasingly elsewhere in suburban cities in British Columbia. The policy issue that emerged has been identifying the risk factors associated with this relatively novel profile and recruitment dynamic to mitigate the likelihood of older adolescents and young adults becoming gang involved. *The Altering Pathways to Youth Gang Violence: Community Pathways Project 2.0* was established to explore the utility of the CI and pathway models in assisting an integrated multi-agency prevention/intervention program (the Surrey Anti-gang and Family Empowerment program) in case management of at-risk youth in the community. Our preliminary results suggest a distinct cultural pathway to gang involvement that surrounds unique risk factors such as language barriers, lack of identity, negative family/school environment, and lack of belonging that are contributing to gang-involvement (Corrado et al., 2019). David's theoretical and policy influence on my research and my colleagues research has been profound and continuing. Beyond this, I am grateful for his persistent encouragement and kindness throughout my career.

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