# THE DLC CRIMINOLOGIST

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# Welcome from David Farrington

Welcome to the second Newsletter of the ASC Division of Developmental and Life-course Criminology. I am delighted to report that, as of October 7, 2013, the Division has 185 members.

The main event on the horizon, of course, is the ASC meeting in Atlanta. Elsewhere in this newsletter, you will see a list of relevant panels. I would particularly like to draw your attention to the Open Meeting of the DLC division on Thursday November 21 from 2.00-3.20 in International B. Please come and meet fellow members and make suggestions about how the DLC can advance developmental and life-course criminology and criminal career research! I would also like to draw your attention to the session on introducing the new division on Wednesday November 20 at 2.00-3.20 in A706, with Rolf Loeber, Rob Sampson, John Laub, Daniel Nagin, Al Blumstein, and myself.

Also in this newsletter, you will see the report of the DLC Nominations Committee on the first elections to the DLC Executive Board. We welcome Rolf Loeber as the new Vice-Chair, and we have decided to co-opt Tom Arnold to the Board as Website/Newsletter editor. Also, you will see the report of the DLC Awards Committee, which selected Rolf Loeber for the 2013 Life-Time Achievement Award and Delphine Theobald for the 2013 early Career Award. These Awards will be presented in the Open Meeting.

On Behalf of the DLC Executive Board, I would

like to emphasize that we would very much welcome your suggestions about what activities the Division might engage in to advance developmental and life-course criminology. And please encourage your colleagues to join the DLC and participate in its activities!

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2013



## **DLC Executive Board**

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# Joining the ASC Division of Developmental and Life-Course Criminology (DLC)

If you would like to join the American Society of Criminology (ASC) Division of Developmental and Life-Course Criminology (DLC), you first need to be a member of the ASC. When you join the ASC, be sure to check the box that says "Division of Developmental and Life-Course Criminology."

To learn more about the ASC, visit <a href="http://asc41.com/index.htm">http://asc41.com/index.htm</a>

To join the ASC and DLC division visit <a href="http://asc41.com/appform1.html">http://asc41.com/appform1.html</a>

## **DLC Committees**

## Awards Committee - Chair: David Farrington

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#### Newsletter Committee - Chair: Thomas Arnold

Julie Marie Baldwin Chet Britt Molly Buchanan Michael Carriaga John Eassey Chris Gibson Amanda Gilman Marvin Krohn Jeffrey Mathesius Jill Portnoy Daniel Seddig

#### Nominations Committee - Chair: Jesse Cale

Sarah Bennett Sheyla Delgado Evan McCuish Jamie Newsome Ingrid Obsuth Ryan Schroeder

### Program Committee - Chair: Joanne Savage

Christoffer Carlsson Mark Berg Stacey Bosick Leana Allen Bouffard Darrick Jolliffe John Wright

## Disciplines Related to Developmental and Life-Course Criminology

The following information was put together by Jeffrey Mathesius

## **Developmental Psychology**

Developmental psychology refers to the study of change and continuity in psychological processes (e.g., behavioral, emotional, cognitive, personality) across human development. Changes are said to be systematic in that they are patterned and orderly. For example, language vocalization progresses from cooing, to babbling, to uttering one-word phrases, and so on. This concept of systematic change is similar to the developmental criminological notion of heterotypic continuity. Continuity, on the other hand, refers to the extent to which a psychological process remains the same. The process of continuity is consistent with the concept of stability in developmental criminology. Further, according to this perspective development composes a series of life transitions to which the developing individual is gradually exposed (e.g., birth, childhood, adolescence, young adulthood, adulthood, late adulthood). Phrased differently, each developmental stage presents new developmental milestones and challenges that build upon previous developmental stages. Failure to meet the developmental tasks of one life-stage will carry over into the next life-stage. In general, developmental psychologists seek to: (1) describe the development of psychological processes (e.g., moral reasoning); (2) explain the etiological basis of such development (e.g., what factors facilitate normal moral development?); and, (3) provide ways to optimize normal and health development (e.g., creation of treatment programs).

Developmental psychology is related to developmental criminology in a number of ways. First, both are interested in the unfolding of a given process across the life course, whether it is deviant/criminal behavior in the case of criminology or language acquisition in the case of psychology. Second, both disciplines recognize the importance of life-stages and life-transitions in influencing the development of these processes. Third, both require the use of prospective longitudinal research projects to effectively investigate the unfolding of development.

### Journals related to developmental psychology

- 1) Journal of the American Academy of Child and Adolescent Psychiatry
  - Impact Factor: 6.444
  - Editor:: Andres Martin
- 2) Child Development
  - Impact Factor: 4.718
  - Editor: Jeffrey J. Lockman
- 3) Journal of Child Psychology and Psychiatry
  - Impact Factor: 4.281
  - Editor: Edmund Sonuga-Barke
- 4) Developmental Psychology
  - ISI Impact Factor: 3.214
  - Editor: Jacquelynne S. Eccles
- 5) Journal of Experimental Child Psychology
  - Impact Factor: 3.122
  - Editor: D. Bjorklund

## **Developmental Psychopathology**

Developmental psychopathology is a sub domain of developmental psychology. While developmental psychologists typically emphasize the healthy development of psychological processes, developmental psychopathologists instead emphasize the abnormal development. Thus, these two disciplines are fundamentally linked and differ only in the process they seek to explain. Accordingly, the theoretical and methodological basis is identical. Developmental psychopathology is related to developmental criminology predominantly in the association between certain mental/personality disorders (e.g., ADHD, substance abuse, psychopathy, conduct disorder) and deviant/criminal behavior. Indeed, each of these disorders has been demonstrated to be associated with deviant/criminal behavior across all stages of development (e.g., childhood, adolescence, adulthood).

## Journals related to developmental psychopathology

- 1) Journal of Development and Psychopathology
  - Impact Factor: 4.39
  - Editor: Dante Cicchetti
- 2) Journal of Autism and Developmental Disorders
  - Impact Factor: 3.341
  - Editor: Fred R. Volkmar
- 3) Journal of Abnormal Child Psychology
  - Impact Factor: 3.088
  - Editor: Charlotte Johnston
- 4) Journal of Applied Developmental Psychology
  - Impact Factor: 1.852
  - Editor: K. Wentzel

## Forensic Psychology

Forensic psychology refers to the intersection of psychology with the legal system. The discipline of forensic psychology, then, is necessarily diffuse, involving topics ranging from the investigation of the credibility of eyewitness testimony to the causes and correlates of psychopathy. Forensic psychology and developmental criminology overlap in their investigation of deviant and criminal behavior. Indeed, both seek to explain the etiology and treatment of such behavior, among others. However, while developmental criminology focuses on the entire life-course and is multidisciplinary in nature, forensic psychology may or may not take a life-course perspective and typically emphasizes the role of psychological and neurological correlates.

## Journals related to forensic psychology

1) Psychology, Public Policy, and Law

• Impact Factor: 2.711

• Editor: Michael Lamb

2) Law and Human Behavior

• Impact Factor: 2.162

• Editor: Margaret Bull Kovera

3) Behavioral Sciences and the Law

• Impact Factor: 1.337

• Editor: Charles Ewing

4) Psychology Crime and Law

• Impact Factor: 1.305

 Editor(s): Theresa Gannon, Peter van Koppen, and Brian Bornstein

### Criminal Career paradigm

Formalized in 1986 the criminal career paradigm refers to "the longitudinal sequence of crimes committed by an individual offender" (Blumstein et al., 1986). This paradigm provides a structural framework from which to organize knowledge on important aspects of an individual's pattern of offending. In general, four key dimensions underlie this framework: participation (i.e., the distinction between those who engage in crime versus those who abstain), frequency (i.e., the rate of criminal activity of those who are criminally active), offense seriousness/crime mix, and career length (i.e., the length of time an offender is criminally active). Inherent within these dimensions are further subunits of analysis critical to the criminal career paradigm such as age of onset, persistence, desistence, and age of offset. Beyond creating a universal vocabulary for which to discuss an individual's offending behavior,

the criminal career paradigm stimulated both empirical and theoretical debates and directly contributed to the inception of developmental criminology. Indeed, the criminal career paradigm provides the framework for which to structure the developmental course of offending.

## Journals related to the criminal career paradigm

1) Criminology

Impact Factor: 3.268Editor: Wayne Osgood

2) Justice Quarterly

• Impact Factor: 2.63

• Editor: Cassia C. Spohn

3) Journal of Quantitative Criminology

• Impact Factor: 1.673

• Editor: Alex Piquero and Cathy Widom

4) Crime and Delinquency

• Impact Factor: 1.508

Editor: Paul E. Tracy

5) Journal of Criminal Justice

• Impact Factor: 1.379

• Editor: Matt DeLisi

The following information was put together by Michael Johnston

## **Developmental criminology**

Developmental criminology refers to the study of criminal careers (e.g., onset of criminal career, course that the criminal career follows, and termination of criminal career) that occur across human development. Criminologists who identify with developmental and life-course theories believe that criminality is a dynamic process influenced by many characteristics, traits, experiences, and behavior changes. Criminologists who identify with latent-trait theories see criminality as controlled by a master trait present at birth, or soon after, that remains stable and unchanging throughout one's whole life.

Learning and maturation are viewed as the processes which form the basis of life-course criminology. Learning refers to the process in which experiences produce conformity or deviance to social rules and ability to effectively function in society. Maturation refers to age and gender normative behaviors as defined by society. The life-course view is an ordinal perspective in which people are expected to transition in society by first completing school, entering the workforce, getting married, and

having children in wedlock. Some individuals, however, are incapable of maturing according to social norms because of family, environmental, or personal problems. Disruptions may include, but are not limited to, personal divorce, divorce within the family, dropping out of school, criminality, diminished economic circumstances, and pregnancy. Over the life-course the social, physical, and environmental factors that influence behavior transform.

In general, developmental criminologists seek to describe (1) why people begin committing criminal behavior, (2) why some people stop and others continue criminal careers, (3) why some criminal careers escalate in severity of criminality and others deescalate and commit less serious crimes as they mature, (4) what causes people, if anything, to stop criminal activity and relapse later in life, and (5) why some criminals specialize in certain crimes and others engage in a variety of antisocial activities.

## **DLC Resources**

The following list of developmental and life course readings was put together by Michael Carriaga.

## DLC Articles:

- Farrington, D.P. (1986). Age and crime. *Crime and Justice*, 7:189-250.
- Farrington, D.P. (2003). Developmental and lifecourse criminology: Key theoretical and empirical issues—the 2002 Sutherland Award address. *Criminology*, 41:221-255.
- Farrington, D.P., Ttofi, M.M., & Coid, J.W. (2009). Development of adolescence-limited, late-onset, and persistent offenders from age 8 to age 48. *Aggressive Behavior*, 35:150-163.
- Fergusson, D.M. & Horwood, L.J. (2002). Male and female offending trajectories. *Development and Psychopathology*, 14:159-177.
- Hirschi, T. & Gottfredson, M.R. (1983). Age and the explanation of crime. *American Journal of Sociology*, 89:552-584.
- Jeglum-Bartusch, D.R., Lynam, D.R., Moffitt, T.E., & Sliva, P.A. (1997). Is age important? Testing a general versus a developmental theory of antisocial behavior. *Criminology*, 35:13-48.

- Jennings, W.G. & Reingle, J.M. (2012). On the number and shape of developmental/life-course violence, aggression and delinquency trajectories: A state-of-the-art review. *Journal of Criminal Justice*, 40:474-489.
- Moffitt, T.E. (1993). Life-course-persistent and adolescence-limited antisocial behavior: A developmental taxonomy. *Psychological Review*, 100:674-701.
- Nagin, D.S. & Land, K.C. (1993). Age, criminal careers and population heterogeneity: Specification and estimation of a nonparametric mixed Poisson model. *Criminology*, 31:327-62.
- Nagin, D.S., Laub, J.P. & Moffitt, T.E. (1995). Life-course trajectories of different types of offenders. *Criminology*, 33:111-139.
- Odgers, C.L., Moffitt, T.E., Broadbent, J.M., Dickson, N., Hancox, R.J., Harrington, H., Poulton, R., Sears, M.R., Thomson, W.M. & Caspi, A. (2008). Female and male antisocial trajectories: From childhood origins to adult outcomes. *Development and Psychopathology*, 20: 673-716.
- Piquero, A.R., Brame, R., & Moffitt, T.E. (2005). Extending the study of continuity and change: Gender differences in the linkage between adolescent and adult offending. *Journal of Quantitative Criminology*, 21:219-243.
- Piquero, A.R., Farrington, D.P. & Blumstein, A. (2003). The criminal career paradigm. *Crime and Justice: A Review of Research*, 30, 359-506.
- Piquero, A.R., Jennings, W. G. & Barnes, J.C. (2012). Violence in criminal careers: A review of the literature from a developmental life-course perspective. *Aggression and Violent Behavior*, 17:171-179.
- Steffensmeier, D.J., Allan, E.A., Harer, M.D. & Streifel, C. (1989). Age and the distribution of crime. *American Journal of Sociology*, 94: 803-831.

DLC Resources - Continued on Page 6

## DLC Books & Chapters:

- Benson, M.L. (2013). *Crime and the life-course: An introduction*. (2nd ed.). New York: Taylor and Francis.
- Blokland, A.A.J. & Nieuwbeerta, P. (2010). Life Course Criminology. In: Shoham, S.G., Knepper, P., Kett, M. (eds.), *International Handbook of Criminology*. London: CRC Press- Taylor & Francis Group, pp. 51-94.
- DeLisi, M. (2005). Career Criminals in Society. Thousand Oaks, CA: Sage Publications, Inc.
- DeLisi, M. & Beaver, K. (2012). Criminological Theory: A Life-Course Approach.
- Farrington, D.P. (ed.) (2005). *Integrated*Developmental & Life-Course Theories of

  Offending. New Brunswick, US: Transaction
  Publishers.
- Farrington, D.P. & Pontell, H. (2008). *Developmental & Life-Course Theories of Offending*.
- Gibson, C.L. & Krohn, M.D. (eds.) (2013).

  Handbook of Life-Course Criminology:

  Emerging Trends and Directions for Future
  Research. New York: Springer.
- Laub, J.H. & Sampson, R. J. (2003) Shared beginnings divergent lives. Delinquent boys to age 70. Cambridge: Harvard University Press.
- Liberman, A.M. (ed.) (2008) *The long view of crime. A synthesis of longitudinal research.* New York: Springer.
- Moffitt, T.E. (2006). Life-course-persistent versus adolescence-limited antisocial behavior. In: Cicchetti, D. & Cohen, D.J. (eds.) *Developmental Psychopathology, vol. 3*. New York: John Wiley, 570-598.
- Piquero, A.R. & Mazarolle, P. (2000). *Life-Course Criminology: Contemporary and Classic Readings*. California: Wadsworth Inc.
- Piquero, A.R., Thornberry, T., Krohn, M. & Lizotte A.J. (2013). Measuring Crime and Delinquency Over the Life-Course: Analyses from the Rochester Youth Development Study.
- Sampson, R. & Laub, J.P. (1993). *Crime in the Making*. Cambridge, MA: Harvard University Press.
- Thornberry, T.P.. & Krohn, M.D. (2001). The development of delinquency: An interactional perspective. In S.O. White (Ed.), *Handbook of Youth and Justice*. New York: Plenum.

## Readings with Policy Implications for Developmental & Life Course Criminology

- Collected by Julie Baldwin and John Eassey
- Farrington, D.P. (2003). Developmental and life-course criminology: Key theoretical and empirical issuesthe 2002 Sutherland Award Address. Criminology, 41:221–225.
- Farrington, D.P., Loeber, R., & Howell, J.C. (2012). Young adult offenders: The need for more effective legislative options and justice processing. Criminology and Public Policy, 11(4), 729 – 750.
- Gibson, C.L. & Krohn, M.D. (2012). Raising the age: Issues in emerging adulthood and adult criminal court referral of youthful offenders. Criminology and Public Policy, 11(4), 759 768.
- Loeber, R. & Farrington, D.P. Young children who commit crime: epidemiology, developmental origins, risk factors, early interventions, and policy implications. Development and psychopathology 12:737-762.
- Loeber, R., & Stouthamer-Loeber, M. (1998).

  Development of juvenile aggression and violence: some common misconceptions and controversies.

  American Psychologist, 53(2), 242.
- Macmillan, R. (2000). Adolescent victimination and income deficits in adulthood: rethinking the costs of criminal violence form a life-course perspective. Criminology, 38(2), 553-588.
- Sampson, R.J., & Laub, J.H. (2005). A general agegraded theory of crime: Lessons learned and the future of life-course criminology. Integrated developmental and life course theories of offending 14:165-182.
- Thornberry, T.P., Huizinga, D., & Loeber, R. (1995).

  The prevention of serious delinquency and violence: implications from the program of research on the causes and correlates of delinquency. Pp. 214-237. In James C. Howell, Barry Krisberg, J. David Hawkins, and John J. Wilson (Eds.), Sourcebook on Serious, Violent, and Chronic Offenders. Thousand Oaks, CA: Sage Publications.
- Thornberry, T.P., Huizinga, D., & Loeber, R. (2004). The causes and correlates studies: Findings and policy implications. Juvenile Justice, 9(1):3-19.
- Thornberry, T.P., & Krohn, M. D. (Eds.). (2003). Taking stock of delinquency: An overview of findings from contemporary longitudinal studies. New York, NY: Kluwer Academic/Plenum Publishers.

## Upcoming American Society of Criminology Annual Conference Division of Developmental and Life-course Criminology Events

WEDNESDAY Nov. 20

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2:00 - 3:20 Atrium Level, Room A706

The New Division of Developmental and Lifecourse Criminology: Bridging Our Understandings of Child Development, Lifecourse Transitions, and Criminal Careers

David P. Farrington, Rolf Loeber, Robert J. Sampson, John Laub, Daniel S. Nagin, Alfred Blumstein

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8:00 - 9:20 a.m. Lobby Level, Room L405 Life Course Perspectives on Violent Crime

9:30 - 10:50 a.m. Lobby Level, Room L406

Media Violence and the Development of Crime:
New Data on an Old Question

9:30 - 10:50 a.m. Atrium Level, Room A702 Child Maltreatment, Later Life Outcomes, and the Intergenerational Transmission of Violence

12:30 - 1:50 p.m. Atrium Level, Room A701Developmental Perspectives on the Causes of Crime: Empathy, Parental Conviction and Antisocial Attitudes

12:30 - 1:50 p.m. Lobby Level, Room L406Criminological Research on mating, Dating, and Narrating

12:30 - 1:50 p.m. Lobby Level, Room L404 Understanding the Desistance Process

2:00 - 3:20 p.m. Atrium Level, Room A703 Parenthood, Crime, and Desistance

3:30 - 4:50 p.m. Lobby Level, Room L403
Life Course Transitions and Criminal Outcomes

5:00 - 6:20 p.m. Lobby Level, Room L405

The Development of Offending Trajectories

#### **THURSDAY Nov. 21**

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12:30 - 1:50 p.m. Atrium Level, Room A704

Longitudinal Studies of Criminal Behavior: What we have Learned About Collecting Data on the Life Course

Magda Stouthamer-Loeber, Delbert Elliott, Edward P. Mulvey, David P. Farrington

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9:30 - 10:50 a.m. Marquis Level, Room M103 Sex, Romance, and Crime

9:30 - 10:50 a.m. Atrium Level, Room A701 Qualitative Studies of Criminal Careers I

11:00 a.m. - 12:20 p.m. Atrium Level, Room A704
Disentangling Parent and Child Effects on Aggression and Antisocial Behavior
Featuring Invited Guests Sara Jaffee (University of Pennsylvania) and Jennifer Lansford (Duke University)

11:00 a.m. - 12:20 p.m. Atrium Level, Room A707Early Childhood Predictors of Criminal Behavior: International Perspectives

2:00 - 3:20 p.m. International Level, International B Annual Division Meeting

3:30 - 4:50 p.m. Atrium Level, Room A702 Qualitative Studies of Criminal Careers II

3:30 - 4:50 p.m. Atrium Level, Room A708
Innovative Research in Developmental and Life-Course Criminology

3:30 - 4:50 p.m. Lobby Level, Room L401 Investigating the Marriage Effect

3:30 - 4:50 p.m. International Level, International 2 Social Disadvantage and Crime over the Life Course

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#### FRIDAY Nov. 22

9:30 - 10:50 a.m. Atrium Level, Room A701 Studies of Onset of Criminal Careers

9:30 - 10:50 a.m. Atrium Level, Room A708

Life Course Research on Educational Outcomes and Criminal Offending

11:00 a.m. - 12:20 p.m. Atrium Level A706 Causes of Crime and Criminal Behavior / Biological, Bio-social, Psychological Perspectives

12:30 - 1:50 p.m. Lobby Level, Room L503

The Effects of Victimization on Mental and Health Outcomes

2:00 - 3:20 p.m. Atrium Level, Room A704 Intergenerational Perspectives on Crime and Delinquency

2:00 - 3:20 p.m. Atrium Level, Room A703

The Racialized Dimension of Life Course Processes



# Nominations Committee Report

Jesse Cale <u>i.cale@unsw.edu.au</u>

Fellow members of the DLC division,

We are pleased to announce the results of the first annual election of the Division for Developmental and Life-course Criminology.

Professor David Farrington will continue to Chair the division into 2014 and he will be joined by newly elected Vice-chair, Professor Rolf Loeber. Dr. Tara McGee will continue in her position as Secretary/Treasurer, as will Executive Counsellors Professors Joanne Savage and Arjan Blokland, and Dr. Jesse Cale.

The executive board wishes to extend their thanks to all of those who put forward nominations, and to all members for taking the time to vote.

Please remember to encourage membership in the division, and we look forward to seeing everyone at ASC in Atlanta.

Jesse Cale, on behalf of the Nominations Committee,

Sarah Bennett, Sheyla Delgado, Evan McCuish, Jamie Newsome, Ingrid Obsuth, Ryan Schroeder



# Membership Report

Arjan Blokland ablokland@nscr.nl

To judge by the growing number of members, the division on developmental and life-course criminology, has definitely struck a chord in many criminologists.

Currently, as of October 7, 2013, the division has 185 members, with more added every month. Members are affiliated with universities and research institutes from 15 different countries all over the globe, including Hungary, South Korea and Trinidad.

Of its 185 members, 70 are student members, indicating a continued interest in developmental and life-course questions in this new generation of researchers.

As we continue to further shape the division and develop activities surrounding the annual ASC meeting and elsewhere, membership can be expected to rise even further over the coming year, attesting to the division's added value.

## Spread the Word!

Please send this newsletter to any of your colleagues who have an interest in developmental and life-course criminology. We would like to increase our membership so that we can build a larger DLC community of scholars. Visit our web site at <a href="http://www.dlccrim.org">http://www.dlccrim.org</a>



# Secretary/ Treasurer's Report

Tara Renae McGee Secretary / Treasurer tr.mcgee@griffith.edu.au

The Division of Developmental and Life-Course Criminology has continued to grow. In March 2013, we had 123 members. This has now grown to 190 members in 2013 and 221 when including membership renewals for 2014. We encourage all of the Division members to renew their membership of the Division when they renew their ASC memberships for 2014.

Please continue to encourage your developmental and life-course criminology colleagues who have not already done so, to join the Division. Here is the link for ASC membership:

http://www.asc41.com/appform1.html

Anyone who is already an ASC member can join the division by downloading the membership form and completing the Division section and submitting that to the ASC office.

Financially the Division is doing well with the only expenditures to date being for the Division website hosting fees <a href="http://www.dlccrim.org">http://www.dlccrim.org</a> and the Division's awards.

At the Division meeting in Atlanta (see conference program), future activities of the Division will be discussed. If you are unable to make the meeting, please forward your comments/ideas to the Secretary/Treasurer.

## Report of the 2013 DLC Awards Committee

Nominations were requested for two awards:

The Life-time Achievement Award, which recognizes an individual who has a record of sustained and outstanding contributions to scholarly acknowledge on developmental and life-course criminology.

**The Early Career Award,** which recognizes an individual (within 4 years after receiving the Ph.D. degree or a similar graduate degree) who has made a significant contribution to scholarly knowledge on developmental and life-course criminology in their early career.

The DLC Awards Committee voted for the following persons to receive awards in 2013:

# The Life-Time Achievement Award: Professor Rolf Loeber

Professor Loeber has outstanding made contributions to knowledge about developmental and life-course criminology. He has co-directed three major longitudinal studies (the Developmental Trends Study, the Pittsburgh Youth Study, the Pittsburgh Girls Study) and has co-chaired three major U.S. government study groups (on Serious and Violent Juvenile Offenders, Child Delinquents, and Transitions from Juvenile Delinquency to Adult Crime). He is currently Distinguished University Professor of Psychiatry and Professor of Psychology Epidemiology at the University of Pittsburgh.

## The Early Career Award: Dr. Delphine Theobald

Dr. Theobald received her Ph.D. in Criminology from Cambridge University in 2011. She has published more than 10 articles on topics such as the effects of getting married on offending, the effects of marital breakdown on offending, childhood predictors of male intimate partner violence, and childhood broken homes and adult violence. She is currently a Lecturer in Forensic Mental Health and Psychology in the Institute of Psychiatry, Kings College London.

The 2013 DLC Awards Committee comprised Lynette Feder, Ross Homel, Lila Kazemian and Doris MacKenzie, and it was chaired by David Farrington (who did not vote).

The Awards will be presented at the DLC Open Meeting in Atlanta on Thursday November 21 from 2.00 – 3.00 in International B, Marriott Marquis.



# Genetics and Life-Course Criminology: Can Environmental Change and Stability get Inside of Us?

## Chris L. Gibson

#### Introduction

In his presidential address to the American Society of Criminology, Professor Cullen (2011: 301) "Life-course stated, criminology now criminology." Although some will disagree with his statement, evidence suggests that he was on the mark. First, Ellen Cohn's (2011) recent study examining scholarly impact revealed that 8 of the top 12 most cited scholars in criminology journals are life-course researchers. Second, over the past 8 years the Stockholm Prize in Criminology has been awarded to various developmental/life-course criminologists. Despite these facts, it makes sense that to understand developmental processes such as criminal behavior we must use a framework that accounts for stability and change in an outcome over time. To do so, we must understand how exposures to dynamic environmental conditions can "get inside of people" to affect their biology in ways that make them differentially susceptible over the life-course.

Using a life-course approach to explain any developmental process of a complex organism should be approached using a holistic framework that allows researchers to examine questions of how an organism adapts biologically, psychosocially, and behaviorally to environmental change and stability, harsh or threatening contexts, and supportive and secure conditions from conception to death. Most biologists would agree that species can only be understood in relation to their environments — criminologists probably concur. Biologists also agree that a species environment can produce biological adaptation or change — my educated guess is that not all criminologists would concur.

To understand criminal behavior over the lifecourse it must be realized that humans are adaptive, complex organisms that, like other organisms, are influenced by an intricate dance between their biology and environment from the moment of conception until death. For the remainder of this article I argue for why it is necessary that life-course and biosocial criminologists join forces in ways that capitalize on their collective knowledge on the development of human behavior and traits, and how this will be valuable for the sustainability of life-course criminology for decades ahead. First, I provide a brief overview of life-course criminology and some of the main findings that have emerged. Second, I do the same for biosocial criminology. I will emphasize gaps in these bodies of research, while also highlighting ways to better merge them. Finally, I provide some thoughts for future research on the study of how genetics and the development of criminal behavior can be combined with the hope of igniting some scientific curiosity.

# Life-Course Criminology: A Brief Overview of the Past and Present

Developmental and life-course criminology has come a long way since the now classic debates of the 1980s appearing in Criminology among criminal career researchers and propensity theorists. These exchanges centered on 1.) the invariance of the agecrime curve, 2.) whether offending frequency among active offenders and offending prevalence should be examined as different dimensions of a criminal career or parts of the same construct to be explained by an underlying criminal propensity, and 3.) the adequacy of longitudinal research and whether collection of such prospective data are necessary for shedding light on the causes of crime beyond what could be extracted from cross-sectional data (Blumstein, Cohn, & Farrington, 1988a; 1986; Blumstein, Cohn, Farrington, 1988b; Gottfredson & Hirschi, 1987; Gottfredson & Hirschi, 1988).

Now fast-forward approximately 30 years. What have we learned about the development of criminal behavior? Findings from prospective longitudinal studies give us invaluable insights on topics that were once highly contested and debated. For instance, group-based trajectory modeling has since been developed and used to explore the "evolution of an outcome" (Nagin, 2005: p. 1) or to estimate statistical portraits of offending patterns over the life-course. Despite evidence for relative stability in antisocial and criminal behavior (Loeber, 1982), trajectory research has shown that the frequency at which offenders engage in criminal behavior from childhood into late adulthood varies considerably (Piquero, Farrington, & Blumstein, 2003), and that all offenders eventually desist from crime by late

adulthood (Blokland & Nieuwbeerta, 2005; Sampson & Laub, 2003). Numerous published portraits of offending trajectories are testaments to the importance of longitudinal data for understanding what lies beneath the age-crime curve (see Piquero, 2008).

Several decades of life-course research has also consistent findings regarding the produced development of criminal behavior. These include: 1.) offending prevalence peaks between 15 and 19 years of age, 2.) age of onset peaks between 8 and 14 years of age, 3.) a small percentage of offenders account for a disproportionate amount of offenses, 4.) early offending onset predicts longer criminal careers, 5.) criminal behavior is moderately stable from childhood to adulthood, 6.) offending typically occurs in small groups and it often occurs with others up until emerging adulthood, 7.) offending versatility is more common than specialization 8.) criminal offending is a manifestation of a larger construct referred to as antisocial behavior, and 9.) desistance usually occurs between the ages of 20 and 29 (see Piquero, 2011). Life-course studies of crime have has also informed us of how time-varying risk factors can be more salient during some stages of development than others (e.g., Laub & Sampson, 1993; Thornberry & Krohn, 2005). Finally, studies have informed us of how population heterogeneity (traits or individual differences) and state-dependence (environmental events or processes) are likely to interact in complex ways to affect stability and change in offending (Nagin & Paternoster, 2000).

An offender's social interactions/environment contributes to change in his or her involvement in, continuation of, and desistance from crime and related behaviors. As one ages, distal and proximal environmental factors will directly or indirectly affect learning, mental health, self-identity, social control, and stress levels that are cognitively interpreted and physically felt. In the beginning stages of life such environments are often beyond an individual's control (e.g., the womb and early childhood) and those environments experienced later are influenced by individual choice to some extent, but still influenced by past experiences (e.g., Moffitt, 1993).

Life-course criminologists have had success discovering how changes in parenting, commitment to school and work, peer relationships, marriage, and neighborhood social conditions are dynamic influences on the development of criminal behavior

that shift over time and are often dependent on the developmental period in which they are encountered (e.g., childhood, adolescence, and adulthood). Collectively, such studies have informed developmentally sensitive and contextually adapted preventative intervention programs that have proven in some instances successful for minimizing exposure to risk factors and enhancing protective factors related to violence and delinquency (Fagan & Hawkins, 2013; Farrington & Welsh, 2007; Olds et al., 1998).

Life-course criminology has not enjoyed the same success when it comes to understanding how harsh, insecure, unsupportive, and threatening environments that cause stress can have devastating affects on biological development starting at conception, and how in turn such biological changes influence individual selection of environmental contexts and future involvement in criminal behavior as one ages. An area of research that is largely lacking in life-course criminology is how exposure to such environments over time can affect gene expression – a developmental biological processes that will likely prove to be important for understanding stability and change in antisocial behavior.

In fairness though. for several decades have empirically criminologists examined biologically-related variables using a life-course framework, but not necessarily in ways that I will suggest. Biosocial hypotheses from life-course theories have been tested, which make predictions about how variables such as maternal cigarette low birth weight. smoking. lead exposure. intelligence, and temperament are related to various dimensions of criminal and antisocial behavior across developmental stage (e.g., Gibson, Tibbetts, & Piquero, 2000; Moffitt, 2003; Tibbetts & Piquero, 1999; Tibbetts, 2012; Wright et al., 2008). These variables are more closely associated with early onset, persistent, and serious offending from childhood into adulthood. These studies are important and still encouraged.

With few exceptions (e.g., Barnes, Beaver, and Boutwell, 2011), research in life-course criminology rarely considers how genes may influence stability and change in environments and antisocial behavior. This is unfortunate because the evidence tell us that genes matter. Evidence across disciplines converge on the facts that 1.) genes influence most behaviors

and traits, 2.) gene expression is largely determined by environments and when considered in conjunction will allow for a more complete understanding of change and stability in criminal and related behaviors between and within individuals, and 3.) emerging evidence on how growth in neural networks in the brain that affect our personality, cognitive potential, and behavior are shaped by our genes and exposure to environmental stimuli during the first several decades of life. These are topics at the forefront of science and there is ever reason to believe they should be for life-course criminological research too.

# A Brief Overview of Genetic Research in Criminology

Dating back to when I was a graduate student working on a master's thesis in which I analyzed biosocial longitudinal data collected as part of the Collaborative Perinatal Project (see Denno 1990), it never occurred to me that biosocial criminology would be as important as it is today in the study of criminal behavior and violence (e.g., Raine, 2013). Biosocial research on genetics and crime has become so fascinating to the public that major newspapers and magazines in the United States and Europe often highlight recent discoveries showing associations between genes and human behavior. A recent example is an article titled, "A Genetic Basis for Crime: A New Look" that appeared in the New York Times on June 19, 2011, days before the National Institute of Justice's annual summer research conference. I chose this particular article because of who was interviewed. The article provided quotes from major contributors to life-course criminology (Robert Sampson, Harvard University and John H. Laub, University of Maryland), a major contributor to both life-course criminology and genetic research on antisocial behavior (Terrie Moffitt, Duke University), and two major contributors to biosocial research on genetics and crime (Kevin Beaver, Florida State University, John Wright, University of Cincinnati) who provided their educated opinions on the link between genetics and crime.

A particular quote from Professor Robert Sampson caught my attention. Sampson stated, "sociology has nothing to fear from genetic research." In my opinion, he was absolutely correct. Although I agree fully with Sampson, one caveat must be added. Sociologists, criminologists, and lifecourse researchers have nothing to lose and everything to gain from incorporating genetics into

explanations of antisocial behavior, criminality, and criminal behavior.

Life-course criminology has nothing to fear from genetic research because mounds of published genetic studies highlight the important role of environment on violence, delinquency, and other developmental behaviors and traits. Biosocial criminology has largely focused on two broad types of genetic studies: behavior genetics and molecular genetics. In the remainder of this article, I briefly address the following questions: 1.) what have we learned from these studies, 2.) how should they inform life-course criminology, and 3.) what areas of research must be developed to understand more fully the complex role of genes in shaping criminality, criminal behavior, and related behaviors.

Behavior genetic studies commonly analyze samples of identical twins (100% genetically similar), fraternal twins (50% genetically similar), and other sibling pairs that vary in their degree of genetic Despite their inability to pin point relatedness. particular genes (although some exceptions do exist), behavior genetic studies are useful in that they have allowed for global estimates of genetic and environmental influences on phenotypes of interest to criminologists including childhood life-course oppositional defiant behavior, adolescent-limited and life-course persistent offending, substance use, attention deficit hyperactivity disorder, serious delinquency, self-control, aggression, and violent crime.

Results from meta-analyses of behavior genetic studies on antisocial behavior reveal three general findings: 1.) approximately 40 to 60 percent of the variance in antisocial behavior is attributable to genetics, 2.) the lion share of variance attributable to environmental influence is from the non-shared environment (environmental influences that individuals may differently experience or that they do not share), and 3.) the shared environment explains the least amount of variance (e.g., Ferguson, 2010: Mason & Frick, 1994; Miles & Carey, 1997; Rhee & Waldman, 2007). Collectively, these findings hold across historical periods, countries, and multiple behavioral outcomes and traits. Behavior genetic studies have also shown that genetic influences can vary across developmental stages from childhood to adulthood, although such studies in criminology rarely examine within person change and stability in antisocial outcomes over long periods of the life course.

A particularly important conclusion that can be drawn from behavior genetic studies is that they provide strong support for environmental influences. Unfortunately, many life-course criminological studies do not account for genetics in determining how dynamic socialization, learning, and social control processes shape the developmental of criminal behavior using behavior genetic designs. To be fair though, life-course studies on crime have gone to lengths to rule out potential sources of selection bias that may account for a correlation between life events and change in the frequency of criminal behavior (e.g., Sampson Laub, & Wimer, 2006). Nonetheless, this gap provides a research opportunity biosocial researchers and life-course criminologists to call upon their collective knowledge of twin designs and non-shared environmental influences to determine the most appropriate ways in which to model inter-individual differences and intraindividual stability and change in criminal behavior over the life-course.

As a result of the unveiling of the human genome, social scientists are able to examine how particular genetic variants are related to variations in antisocial behaviors and personalities (e.g., Caspi, McClay, Moffitt, Mill, Martin, Craig, Taylor, & Poulton, 2002). Criminologists have played a role in analyzing these data and have found that functional genetic polymorphisms involved in the coding and production of proteins and enzymes related to neurotransmission are also important for predicting phenotypes relevant to life-course criminologists. Such studies move beyond criticisms of behavior genetics by allowing for examination of genetic variation at a molecular level and how these differences interact and correlate with environmental factors such as parenting and child maltreatment, neighborhood environments, delinquent friendships and learning experiences, and stressenhancing circumstances to predict antisocial and criminal behavior.

Molecular genetic studies on antisocial behavior and traits use two frameworks: diathesis-stress and differential susceptibility. The diathesis-stress model argues that carriers of genetic risk alleles are at a heightened risk for engaging in violence and related behaviors, but only in the presence of stressful environmental conditions that may trigger a gene's expression. For instance, studies show that a functional genetic polymorphism in conferring low-levels of MAO-A expression (an enzyme responsible

for regulation of serotonin and dopamine in the brain) increases the likelihood of violence among individuals who also had experienced severe maltreatment in childhood (Caspi et al., 2002). This finding has a relatively high replication rate, which is impressive given that thousand of genes are likely linked to violence.

The differential susceptibility model suggests that genes thought to place individuals at risk for criminality actually make them generally more sensitive to their environment (Belsky & Pluess, 2009; Belsky & Beaver, 2011; Simons, Lei, Beach, Brody, Philibert, & Gibbons, 2011). This means that individuals who are carriers of particular gene variants - often referred to as "risk alleles" - are not only more at risk for exhibiting maladaptive behaviors and traits when paired with harsh or stressful environments, but individuals who are carriers of the same genetic variants will exhibit substantially less maladaptive outcomes when paired with lower criminogenic and stressful environments. A proposition that is more difficult to examine is that the more "sensitivity" alleles an individual carries the more sensitive he or she is to all environments experienced, whether they be harsh or less harsh, positive learning environments or negative learning environments, and disadvantage neighborhoods or Nonetheless, molecular affluent neighborhoods. genetic studies that link genes, environments, and antisocial behavior are growing at a rapid pace. As such, readers should acknowledge that this science is in its infancy and discoveries are being made weekly, making it an exciting new research frontier.

## Joining Intellectual Forces: Some Thoughts on Genetics and Life-Course Criminology

When we truly think about development of human behavior it should be easy to see that biosocial and life-course criminologists are interested in the same thing. Both are interested in developmental processes that are intricately connected and should be integrated. But how can intellectual forces be joined to work toward a common goal of developing a framework that recognizes and takes seriously the fact that humans are biologically complex and extremely adaptive organisms affected by changes in their environments beginning at conception? Here I want to elaborate on one particular area of research that may address limitations in both areas and, if pursued, should lead to novel research on the development of criminal behavior.

Imagine two identical twins (twin A and B) that share 100 percent of their DNA and are reared by both biological parents. Their parents show them the same amount of love and when they misbehave discipline them in the same way. When they begin to achieve more autonomy and independence from their biological parents in the transition from childhood to adolescence, twin A and B start to explore different social groups. Twin A begins to hang out with peers who get him into trouble. He witnesses violence and engages in it himself, starts smoking and drinking alcohol, and drops out of high school. Twin B takes a different path and develops a prosocial peer group, is committed to school, makes good grades, is conscious of his health and exercises often, doesn't drink or smoke, and engages in civic activities in his community. By adulthood the twins are living very different lives and are experiencing very different environments. Twin A has various health problems including cancer, has limited education, is still using drugs, has had multiple failed marriages, mental health deficits, is unable to hold a job, and has been locked up multiple times in a state penitentiary for various offenses. Twin B has a family and two kids, runs 4 miles a day and kayaks on the weekends, eats healthy meals with his family almost every night, and has the occasional glass of wine on the weekends, but his job as a lawyer is quite stressful and has been for vears.

During a holiday season, Twin A and B visit one another and it becomes apparent that they share many features and characteristics, even though they have had so many different experiences. They have the same laugh, they both enjoy eating seafood, they have similar mannerisms, and it becomes obvious that they are both extroverts and are willing to take risks (but in different ways), and both show signs of impulsivity by interrupting each other and not thinking much before speaking.

Behavior genetic research might tell us that the concordance between Twin A and B's personalities and other traits are not because the environments they shared as kids, but because they share 100 percent of their genome – they are nature's clones. Behavior genetic research may also tell us that the reasons why the twins are different in adulthood is because the non-shared trajectories they started to experience in early adolescence continued into mid-adulthood. What behavior genetic research may not tell us is that the non-shared environmental influences may be only part of the explanation for why Twin A and B ended up so different. Twin A and B are not only different

in their criminal records, family life, and careers because of the different social trajectories they continued on, but they are different because their genomes have been altered. Their genes have been expressed differently over their life-course due to environmental experiences. But, how can this be? They share 100 percent of their DNA. Even if a scientist examined their DNA it would still be the same.

The answer is epigenetics, which literally means "above genetics." The twins epigenomes have not changed their DNA hardware, but because of differential exposures to environments, toxins, stress, social interactions, and diets their epigenomes have determined whether or how much some genes are expressed in cells (see Francis, 2011). This occurs through outside instructions from methyl groups made from carbon and hydrogen that chemically bind to genes. Methyl groups communicate not to express this gene or to express this gene. Epigenetics are also affected by histones, which are proteins that DNA wraps around and they control how tightly or loosely DNA is wrapped. If tightly wound, genes will tend to express less and if more loosely wound genes express more. A general difference between them is that methyl groups act more like a light switch that can turn on or off gene expression, whereas histones act more like screws that can tighten or loosen gene expression. While twin A and B will always have the exact same DNA hardware throughout their lives, their epigenetic tags changed during the life-course in response to environments they experienced. Epigentic tags that have changed gene expression in Twin A and B could have also contributed to their behavioral and health differences, as well as their broader social circumstances. Not only can gene expression change in response to environmental triggers beginning in the womb and continue over an organism's life-course, epigentics can be responsible for turning off a gene, which then is transmitted to the next generation (Francis, 2011). The experiences of our great grandparents could be responsible for why some of our genes are not expressed, thus causing us to have a higher risk of developing cancer or Alzheimer's.

Life-course and biosocial researchers have collectively provided evidence of how, when, and what environmental conditions are related to the development of criminal behavior. Life-course criminologists have done a particularly good job of measuring change in environmental factors and offending behavior within persons across

developmental stages, but they have largely neglected what role genes play in developmental trajectories of criminal behavior. Some could argue that using a longitudinal design that examines repeated measures of criminal behavior within a person over time is a possible solution that accounts for genetic influence because a person serves as his or her own control. The potential problem with this argument is that epigenetics tell us that changes in gene expression occur. Within a person as he or she ages we may discover that genes that are turned off or expressed less at one stage of the life-course are turned on or expressed more at another stage (e.g., puberty or pregnancy). This process will produce change in phenotypes too. It will not only be beneficial for lifecourse criminologists to consider these possibilities, but identifications of dynamic environmental factors most important candidates for gene expression should recognized, beginning in the Environments that can produce perceived and felt stress on the body that vary over time and exist at multiple-levels of analysis including neighborhood, family and individual are probably a good starting point.

Biosocial researchers using behavior genetic models to examine the relationships between genes, environments and criminal behavior have provided a good start to understanding an important source of environmental influence (i.e., non-shared sources) on antisocial and criminal behavior while controlling for genetics. With some exceptions (e.g., Beaver 2008), such studies have been less successful at unpacking the most important sources of non-shared environmental influence and how they may interact with genes to affect the development of antisocial behavior as individuals experience different over their life-course. environments When examining behavioral outcomes over time these studies commonly do so by using wave-to-wave analysis that is not equipped to examine within person change and stability; this is a needed next step. Biosocial researchers examining genetic polymorphisms have also provided us with evidence that gene X environment interactions are the most promising way to conceive genetic influences, and that these interactions predict antisocial behavior at different stages of the life-course. However, studies of intra-individual change have been slow to emerge in gene X environment criminological research. This too is an important next step in biosocial research that will complement the larger goal of developing a holistic developmental/life-course framework.

Importantly, gene X environment models that examine intra-individual change and stability can blow fresh air into the diathesis-stress and differential susceptibility hypotheses. Likely due to available data, a limitation to current studies is that they have not examined within person change in exposure to environments that can produce change in gene expression. For instance, does a child who carries genetic variants that make him highly sensitive to his environment more likely to change his phenotype in response to moving from a negative social environment (e.g., high disadvantaged neighborhood) to a more positive social environment (e.g., less disadvantaged neighborhood) when compared to a child who is less genetically sensitive? Currently, I am unaware of biosocial research that captures such intra-individual change and inter-individual differences simultaneously.

Available data for examining ideas that I have proposed are at best limited. First, many of the prospective longitudinal studies containing multiple assessments from childhood to adulthood contain excellent measures of environment, but only few have collected genetic data. The lack of molecular genetic data in some long-term studies of criminal behavior is unlikely to be due to a lack of interest; I know that some PIs of such studies have applied for funding to collect genetic data. Those containing genetic data are typically limited to only some candidate genes (e.g., MAOA, 5HTTLPR, DRD4, etc.) that place barriers on the questions that can be explored using a gene X environment framework. Second, epigenetic methylation data needs to be collected as part of longitudinal studies on antisocial and criminal behavior which can be used to better connect genes to environmental factors that turn on and off gene expression over the life-course. It will also be important for intergenerational studies to consider collecting data on how genetic tags or imprints are passed on to future generations (grand parents, parents, and children) These are desirable next steps in merging life-course with biosocial research on genetics.

If this more holistic approach to understanding antisocial and criminal behavior is to happen then some initial planning, education, and awareness must be accomplished. First, I am happy to see that during the 2013 American Society of Criminology meetings in Atlanta, Georgia a presidential panel on the state of biosocial research in criminology is scheduled and the speakers include professors Kevin Beaver, David Farrington, and Adriane Raine. This is certainly a

step in the right direction, but more discussions between life-course and biosocial researchers should Too often are panels segregated in that biosocial researchers have panels on biosocial topics and life-course researchers have panels on life-course criminology. Efforts need to be made to bring these researchers together on panels at professional meetings or perhaps working groups formed. Second, it will be important to educate the criminological community on how genetic data are collected and how they should be analyzed in a longitudinal framework. A start could be to have pre-conference workshops or high visibility panels on how to collect DNA and epigenetic data. This will likely entail reaching outside of our discipline to scholars in genetics, biology and neuroscience to provide workshops on genetic data. It will also be beneficial to convene panels of social scientists that have had experiences in collecting genetic data as part of their longitudinal studies to provide informational sessions and discussions on the processes and challenges they have faced.

In closing, life-course criminology has been and still remains an exciting and promising area of research, and as Cullen stated in his presidential address it "now is criminology." However, the reasons for change and stability in criminal behavior still remain, in part, a mystery. Efforts to expand examination of and thinking on how a human organism biologically develops in different stable and changing environments holds the power to unravel some of this mystery.

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## Developmental and Life-Course Criminology Symposium: Brisbane, Australia

Tara Renae McGee Symposium convenor tr.mcgee@griffith.edu.au

On the 4th October 2013, a Developmental and Life-Course Criminology Symposium was held in Brisbane, hosted by Griffith University. The event was made possible with funding from the Griffith Social and Behavioural Research College and the Key Centre for Ethics, Law, Justice and Governance, also at Griffith University.

The format for the day was to have a series of provocative presentations designed to stimulate discussion amongst symposium participants. Twenty-four participants attended, coming from around Australia, as well as the UK, USA, Spain, and Cypress. The three presentations centred on the themes of development across the life-course (David Farrington); developmental and life-course theories of crime (Alex Piquero); and developmental crime prevention (Ross Homel).

Overall, it was a great opportunity for a broad group of researchers, including developmental criminologists and others from related areas, to come together and consider the ways forward for research, the development of theory, and the practices of intervention.

A recording of the day is currently being transcribed and on the basis of this and the presentations made by Farrington, Piquero, and Homel, a journal article will be developed. There is also interest in compiling a special issue for a relevant journal that describes the three themes of the day in more detail and also showcases the key findings of developmental and life-course studies from around the world



## The Stockholm Criminology Symposium 2013

## **David P. Farrington**

I was honoured to receive the 2013 Stockholm Prize in Criminology, which was awarded at the Stockholm Criminology Symposium, for my work on the early prevention of offending. This was a very busy meeting for me, as I was performing in almost every session! As Peter van der Laan pointed out, it was a bit like being President at the American Society of Criminology meetings!

All the sessions that I was in on the Monday were in the large Auditorium and were filmed so that anyone in the world could view them as a webcast on their computer. The opening panel from 9.00-10.30 was a discussion concerned with advice from researchers to policy makers. It was expertly chaired by Leena Augimeri, and Frances Gardner, Martin Killias, and myself had a discussion with the Swedish Minister for Justice Beatrice Ask. We suggested methods of screening and risk/needs assessment of children and young people, effective methods of prevention, and what is known about cost-benefit analysis.

The next session, from 11.00-12.30, highlighted contributions in the excellent book on *The Future of Criminology* edited by Rolf Loeber and Brandon Welsh (who chaired the session). Lila Kazemian talked about research on desistance, Alex Piquero discussed knowledge about criminal careers, and Adrian Raine reported on the interaction of biological and social factors in the prediction of violence. I was the discussant, and I focussed on the need to study within-individual change and the long-term predictive power of early risk factors.

In the next session, from 1.30-3.00, Rob Sampson talked about recent research from the Program on Human Development in Chicaco Neighborhoods, showing the predictive power of early risk factors; Per-Olof Wikström reported on within-individual analyses in the Peterborough Adolescent Development Study, designed to test his Situational Action Theory; and Al Blumstein and Kiminori Nakamura discussed their work on

redemption. I was the discussant again, and I highlighted the importance of studying the effect of moving home on offending and of establishing the residual criminal career length.

In the final Monday session from 3.30-5.00, Sytske Besemer, Darrick Jolliffe, and Tara McGee reported on new findings from the Cambridge Study in Delinquent Development, and again I was the discussant. Sytske focussed on the effects of labeling, Darrick investigated the link between low empathy and offending in the children's generation, and Tara reported on changes in antisocial attitudes and antisocial behavior from age 10 to age 48. Of course I was delighted to see these analyses of Cambridge Study data. There was then a poster session from 5.00-7.00, washed down with free wine. We had to take full advantage of this, as wine is very expensive in Sweden!

The first session on the Tuesday, from 9.00-10.30, focussed on knowledge gained in systematic reviews in criminology, highlighting contributions in a forthcoming book on this topic edited by David Weisburd and myself. Maria Ttofi (and Friedrich Lösel and myself) reported on what has been learned from systematic reviews of developmental prevention, Charlotte Gill focussed on what has been learned about community prevention, and Jacque Mallender talked about what has been learned about cost-benefit analysis in criminology. Tara McGee was the discussant.

The second session on the Tuesday (again chaired by Brandon Welsh). from 11.00-12.30, highlighted more contributions to *The Future of Criminology*. David Hawkins talked about the history of delinquency prevention and scaling up from demonstration programs to large-scale implementation, Doris MacKenzie reported on what works in corrections, and Jon Shepherd reviewed his contributions to public health approaches to violence prevention. I was the discussant, and I complimented all three of them for their life-long major contributions (in different ways) to the knowledge and practice of crime reduction.

I gave my prize lecture from 1.30-2.30 on "Saving Children from a Life of Crime: The Benefits Greatly Outweigh the Costs". I first talked about risk-focussed prevention, and the book *Saving Children from a Life of Crime*. Then I described risk and protective factors for offending and antisocial

behavior, including some results from my longitudinal study of over 400 London males from age 8 to age 48. Then I reviewed some effective prevention programs, the costs of crime, and cost-benefit analyses of prevention programs. I recommended a multiple-component risk-focussed prevention strategy and the creation of a national agency for early prevention. After my lecture ended, I was very touched when Sarah van Mastrigt said some very nice words on behalf of my 29 PhD students (past and present) and gave me a book containing their tributes.

The last session that I was in on the Tuesday, from 3.00-4.30, was concerned with the effectiveness of the Toronto SNAP (Stop Now and Think) program for children age 6-11. Leena Augimeri first described the SNAP program and then I presented some results from an article I am writing with Chris Koegl on a cost-benefit analyses of the SNAP program. Based on the reduction in convictions, we concluded that \$3-\$6 were saved for every \$1 expended on the program. Scaling up to self-reported delinquency, the savings were even greater.

Tuesday was the night of the Gala Dinner in Stockholm City Hall, at which the Stockholm Prize was presented. Usually the prize is presented by the Queen of Sweden, but in 2013 she was busy entertaining the European and other royalty who were attending the royal wedding (of her second daughter), so the 2013 prize was presented by the Minister for Justice Beatrice Ask. I had to attend for a rehearsal of the ceremony at the City Hall at 5.50 (to make sure that we didn't crash into each other as we went up and down the stairs) and then the prize ceremony began at 6.30, followed by the Gala Dinner and later by dancing until the early hours!

After I received the Stockholm Prize (and said that I was very honored to receive it), I made a speech thanking key people: Larry Sherman, who first had the vision of a Nobel Prize in criminology, which everyone thought was impossible; Jerry Lee, who helped Larry to make the impossible almost possible as the Stockholm Prize; Larry and Jerzy Sarnecki, for altruistically chairing the prize jury; the Jerry Lee Foundation, Torsten Soderberg Foundation, Hitachi Mirai Foundation, and Swedish Ministry of Justice, for funding the prize; Beatrice Ask, Jan Andersson, and Erik Wennerstrom for supporting the prize; Bo Svensson, for chairing the Stockholm Prize in Criminology Foundation; the prize jury, for selecting me; Rolf Loeber and Brandon Welsh, for editing The Future of Criminology; key persons who

have influenced my career, including Al Blumstein, Michael Tonry, Friedrich Lösel, and David Hawkins; and past and present PhD students and collaborators too numerous to mention.

I encouraged everyone to collaborate, arguing that much more could be achieved and learned in collaboration than alone. I made a plea for increased investment in longitudinal and experimental research, which in my view are the highest quality research methods. I encouraged everyone to aspire to push back - or was it forward? - the frontiers of knowledge, in high quality, ambitious research. I said that it was important to communicate results to policy makers, practitioners, and the general public, as well as scholars and researchers, in order to encourage the use of the best possible methods of prevention and treatment of offending. Finally, I concluded that early prevention was more effective than imprisonment, in both reducing crime and saving money, and I encouraged everyone to work to save children from a life of crime.

The dinner was memorable for the two extroverted female singers and for the entry of all the waiters with deserts and sparklers to the tunes of Abba! By the early hours of Wednesday morning, I was exhilarated but a bit tired. However, I still had further things to do in Stockholm. I was the discussant in a session on "Communities That Care" from 9.00-10.30 on the Wednesday morning, in which papers were given by David Hawkins, Abby Fagan, and Harrie Jonkman. Of course I expressed great admiration for the landmark evaluation of CTC, by randomly assigning communities to experimental or control conditions. Then I had a meeting of the Campbell Collaboration Crime and Justice Steering Committee from 12.00-5.00, followed by a dinner. Then on Thursday morning I had a meeting with Tara McGee and Ross Homel to plan a conference on Developmental and Life-Course Criminology in Brisbane in October, and on Thursday afternoon I gave a lecture on Developmental and Life-Course Criminology at the Department of Criminology of Stockholm University. Finally, I could relax and go to the Abba museum!

In retrospect, attending the Stockholm Criminology Symposium was extremely stimulating and enjoyable, and I would encourage all ASC and DLC members to come to this Symposium in future years!

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