

# **Biosocial Criminology**

New Directions in Theory and  
Research

*Edited by*  
**Anthony Walsh** and  
**Kevin M. Beaver**

Criminology and Justice Studies

# biosocial criminology

This book is designed to bring criminology into the 21st century by showing how leading criminologists have integrated aspects of the biological sciences into their discipline. These authors cover behavior and molecular genetics, epigenetics, evolutionary biology, and neuroscience, and apply them to various correlates of crime such as age, race, and gender. There are also chapters on substance abuse, psychopathy, career criminals, testosterone, and treatment. While not dismissing traditional ideas about these topics, the authors of these chapters show how biosocial concepts add to, complement, and strengthen those ideas. The book is uniquely valuable in that it brings together many of the leading figures in biosocial criminology to illustrate how the major issues and concerns of criminologists cannot be adequately addressed without understanding their genetic, hormonal, neurological, and evolutionary bases.

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# Dedication

This book is dedicated to my wife, Grace, my parents, Lawrence and Winifred, my sons, Robert and Michael, and my grandchildren, Robbie, Ryan, Mikey, Randy, and Stevie.

Anthony Walsh

This book is dedicated to my beautiful wife, Shonna, my two precious children, Brooke and Jackson, and my loving parents, Jack and Joan.

Kevin M. Beaver



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# Foreword

*Criminology and Justice Studies* offers works that make both intellectual and stylistic innovations in the study of crime and criminal justice. The goal of the series is to publish works that model the best scholarship and thinking in the criminology and criminal justice field today, but in a style that connects that scholarship to a wider audience including advanced undergraduates, graduate students, and the general public. The works in this series help fill the gap between academic monographs and encyclopedic textbooks by making innovative scholarship accessible to a large audience without the superficiality of many texts.

*Biosocial Criminology* presents research on the intersection of biology and criminology in a way that will be accessible to a wide range of readers. Anthony Walsh and Kevin Beaver have compiled a series of challenging, compelling, and thoughtful essays on the application of biosocial approaches to the study of criminal behavior. The biosocial approach offers a way of understanding criminal behavior through the interaction of the biological characteristics of human organisms with the social and cultural environments in which they are located. Following a general overview of the various ways the biosocial approach to human behavior can be used to understand criminal behavior, the essays in this collection focus on applying the approach to explain the basic correlates of crime and the implications for crime prevention efforts. *Biosocial Criminology* is the first book in criminology and criminal justice to provide a thorough assessment of current research on the multiple ways that biological and social factors are linked with one another as causes of crime that is in a format accessible and understandable to a broad range of readers.

# Preface

Sociological criminology was the reigning paradigm that guided the study of crime in the 20th century. I was, and remain, a proud member of this paradigm. I was raised, so to speak, as a strain theorist, schooled at Columbia University by Robert Merton and by Richard Cloward, my cherished mentor. In a true Kuhnian sense, this paradigm has helped my career to flourish, furnishing both empirical puzzles to solve and opportunities to author books chronicling the diverse theories that have arisen under its umbrella. Others have built careers in a similar fashion.

Beyond the personal advantage it has afforded many of us, sociological criminology was an important intellectual enterprise. It was shaped by two periods of social turmoil in the century: the rapid urbanization and depression of the century's first four decades and the socio-political transformation that emerged from the 1960s and lives with us in the baby boom generation even today. The theories nourished by these social contexts forced attention on fundamental transformations that restructured the social landscape. Scholars witnessed the effects of mass movements of the population, disorganized communities where vice activities flourished, sudden and widespread poverty, widening forms of inequality, the repression and then liberation of civil rights, and on and on. It would have been foolish to believe that none of this made a difference.

Adherents to sociological criminology were justifiably suspicious of those claiming that the roots of crime lay within individuals. The biology used was clumsy and the data collected hopelessly flawed. More disquieting, biology was rarely used as a universal theory of behavior but as an explanation for the supposed waywardness of the poor, the epileptic, the immigrant, the Jew, and the black. In today's more antiseptic times, cleansed of the perniciously biased commentary that once was so comfortably expressed in polite circles, we cannot feel on a gut level how awful this theorizing was. Biological models not only happily justified eugenics but also did not bother to mask the racist, sexist, and classicist ideology that informed them. It was this genre of thinking that helped to justify the Holocaust.

Sociological criminology thus removed us from the simplistic notion that crime was due to human defect. It liberated us from the idea that offenders were evil by nature and beyond redemption. It forced us to confront that social arrangements were not the natural product of good and bad bodies but intimately shaped by power, politics, and social advantage. Most of all, it stopped us from the facile view that society, in its many manifestations, could be absolved of any responsibility in the origins of crime. Since the 1980s, its advocates have stood firm against the absurd “get tough” movement that has been needlessly repressive and based on a crude view of human choice.

Although I have trumpeted its value, I am equally persuaded that sociological criminology has exhausted itself as a guide for future study on the origins of crime. It is a paradigm for the previous century, not the current one. Let me hasten to say that I do not see the demise of sociological criminology on the immediate horizon. Its status in the discipline is still near-hegemonic. The current generation of scholars is being socialized into its tenets—though, I suspect, imperfectly. But the seeds of its partial demise—of its foundation cracking—are at hand. The paradigm suffers two fundamental problems.

First, it ignores too much that we know matters. Biology is no longer clumsy. Science, theory, and technology from other fields make it impossible to ignore that we are in the midst of a revolution in knowledge that will unlock secrets about human nature and the human mind. The rise of developmental or life-course criminology—especially Terrie Moffitt’s work on neuropsychological deficits—made looking at biology respectable. Development, after all, does not commence in adolescence as many sociological theories implicitly assume; it starts in the womb. But this is only the beginning. As more biologically informed research appears, the theoretical predictions of the sociological paradigm will be revealed as limited, if not misspecified in important ways. Eventually, it will become commonplace to ask: How can any theory that ignores the human body be complete?

Second, sociological criminology has usefully deconstructed conservative get tough views, but it has not constructed much useful knowledge about how to save offenders from a life in crime. Despite good intentions and heartfelt beliefs, its advocates have developed scarce pragmatic advice on how to lessen the misery that crime brings into the lives of its perpetrators and their victims. The problem, I believe, is that sociological criminology simply starts too far away from the offender. It specifies root causes that are not mutable, given existing socio-political arrangements. This perspective thus ignores the insights from correctional rehabilitation that change occurs up close and in person by transforming thoughts and choices. Life-course studies show the same thing. It is the spouse or the boss that restructures lives and reshapes cognitions. The advantage to

biologically informed perspectives is that they start inside the person and work outward. It is hard to become too divorced from keeping a close eye on the ways in which offenders lead their lives.

I should caution, however, that the weakness of sociological criminology does not mean that its demise is ensured. My sense is that it has grown stale (do we really need another test of self-control theory?) and ineffectual in directing public policy. But if biology is to be the foundation of 21st-century criminology, it will have to surmount important challenges. Three tasks seem most pressing. First, its advocates will have to educate fellow criminologists about the new paradigm. Ideas will have to be made accessible and understandable. Second, its advocates will have to relinquish their antagonism toward sociology and instead create a broader, more powerful paradigm that encompasses rather than dismisses the social. And, third, its advocates will have to show how the new paradigm rejects its repressive heritage and instead opens up important vistas for progressive crime policies. Yes, I believe in objective truth. But from a normative vantage point, I also believe that the goal of science should be to use empirically grounded understanding to improve the human condition.

Fortunately, *Biosocial Criminology* makes important strides in these directions. It strikes me as a criminological Wal-Mart, offering under one cover a primer on virtually every aspect of biology and crime. It not only educates but also is persuasive in showing the power of this new paradigm. It respects as well the social, revealing how separating the biological from the sociological is, in many respects, a false and unhelpful dichotomy. And it begins to explore how a biosocial approach can illuminate the importance of intervening early in individuals' lives, often by preventing their exposure to toxic and unhealthy environments.

*Biosocial Criminology*, in short, is a book that should grace the shelf of every student of crime. For sociological criminologists skeptical that biology matters, it provides an excursion through the frontiers of biosocial theory and research. Even if not transformed, the travelers on this trip should return home with a new respect for emerging insights. For those less wed to old ways of thinking, the experience may be more profound. The lessons taught will not be learned in standard criminology textbooks or courses. There is a good chance that *Biosocial Criminology* thus will leave the reader brimming with fresh ideas and with prospects for pursuing richer and perhaps more exciting research enterprises. If so, *Biosocial Criminology* will have served its purpose of laying one of the cornerstones in the foundation for a new paradigm capable of guiding criminology in the 21st century.

Francis T. Cullen  
University of Cincinnati

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# *Part I*

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## *An Overview of the Biosocial Approach*

The aim of this book is to convince the reader of the desirability of linking criminology with biology. Why should criminologists concern themselves with linking their discipline with one associated with illiberal politics by many social scientists? There are numerous scientific and practical reasons for doing so outlined in this book, but a short answer will suffice for now. Over 10 years ago a review of the behavior genetic literature led the reviewer to state that behavior genetics studies often reach the same conclusions about social problems that “left-leaning sociologists” do (Herbert, 1997:80). Why then should we burden ourselves with a body of literature telling us the same thing that sociology supposedly does? Herbert provides the short answer again by pointing out that the conclusions arrived at by behavior geneticists were arrived at using “infinitely more sophisticated tools.” These “infinitely more sophisticated tools” (theories, models, methodologies, concepts, instruments) developed by behavior geneticists (as well as by the other disciplines such as neuroscience, molecular genetics, and evolutionary biology represented in this book) can be brought to bear on the concepts and assumptions of traditional criminological theories as quality control devices that will help us to separate the considerable wheat in criminology from the also quite considerable chaff.

Additionally, because biosocial approaches include both biological and environmental risk factors, they are “more likely to refine social policies to better specification of environmental factors than to divert funds from environmental prevention strategies” (Morley & Hall, 2003).

The first part of this book introduces biosocial criminology via brief overviews of the three major approaches to it: genetics, evolutionary biology, and neuroscience. The first chapter, written by coeditors Anthony Walsh and Kevin Beaver, provides an overall introduction to the field and claims that sociological criminology has gone as far as it can go, and that the only real pathway to progress is the one taken by other sciences. The