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Recommended Citation
Marvin E. Wolfgang, Criminology and the Criminologist, 54 J. Crim. L. Criminology & Police Sci. 155 (1963)

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CRIMINOLOGY AND THE CRIMINOLOGIST

MARVIN E. WOLFGANG

The author is Associate Professor of Sociology in the University of Pennsylvania, Philadelphia. He is also Director of a basic research project entitled “The Measurement of Delinquency.” Dr. Wolfgang is the author of Patterns in Criminal Homicide, for which he received the August Vollmer Research Award in 1960, and is President of the Pennsylvania Prison Society. As a former Guggenheim Fellow in Italy, he collected material for an historical analysis of crime and punishment in the Renaissance.

In this article Dr. Wolfgang explores the meaning of the terms “criminology” and “criminologist.” Recognizing that these terms have been used with great varieties of meaning since Lombroso, and that in the United States criminology has had primarily a sociological orientation, the author poses the question whether criminology can be considered an autonomous, separate discipline of knowledge. He examines the interrelationships between criminology and other fields, and the diversity of present-day approaches to the study of crime and criminals. Presenting his conclusions as to the meaning of the terms “criminology” and “criminologist,” Dr. Wolfgang finds an important distinction between the art of influencing human behavior and the science of studying crime, criminals, and criminal behavior.—EDITOR.

THE MEANING OF CRIMINOLOGY

The term “criminology” has been defined by almost every author who has written a text in the field. The variegated content of criminology, as conceived by Lombroso, Ferri, Garofalo, Aschaffenburg, and other pioneers, has permitted use of this term for the many subdivisions of the field. Textbooks generally refer to a mixture of data on science, law, public administration, and morality, and the commonplace dichotomy of “criminology” and “penology” has been with us at least since the days of Parmele. Sutherland’s definition has been standard for many years: “Criminology is the body of knowledge regarding crime as a social phenomenon. It includes within its scope the processes of making laws, of breaking laws, and of reacting toward the breaking of laws. . . . The objective of criminology is the development of a body of general and verified principles and of other types of knowledge regarding this process of law, crime, and treatment.” Webster’s unabridged edition of the American dictionary appears to have incorporated part of Sutherland’s perspective, for we read that criminology (L. crimen, criminis, crime + -logy) is “the scientific study of crime as a social phenomenon, of criminal investigation, of criminals, and of penal treatment.”

It is the position of this paper that the term “criminology” should be used to designate a body of scientific knowledge about crime. This is essentially the basis for Thorsten Sellin’s introductory chapter of Culture Conflict and Crime, which remains as the most pervasive and precise statement about the content area and theoretical structure of criminology in the literature.

This conceptualism of criminology is neither narrow nor confining. A scientific approach to understanding the etiology of crime may include the statistical, historical, clinical, or case-study tools of analysis. Moreover, there is nothing inherently quantitative in scientific methodology, albeit the most convincing evidence, data, and presentation in general sociological replications of propositions appear to be quantitative. Probably the most fruitful source of analysis of empiric uniformity, regularity, and systems of patterned relationships can be found in the statistical studies of causation and prediction. However, interpretive analyses that may occasionally go beyond the limits of empirically correlated and organized

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2 Parmelee, Criminology (1923).
5 Sellin, Culture Conflict and Crime 1-16 (Social Science Research Council, Bulletin 41, 1938).
6 Hanson, Evidence and Procedure Characteristics of “Reliable” Propositions in Social Science, 63 Am. J. Sociology 357 (1958).
data (but not beyond empiric reality) can be useful and enlightening. If description of the phenomena of crime is performed within a meaningful theoretical system, the methods and the goals of science are not necessarily discarded in the process but may be retained with all the vigor commonly attributed to sophisticated statistical manipulation.

We are contending that criminology should be considered as an autonomous, separate discipline of knowledge because it has accumulated its own set of organized data and theoretical conceptualisms that use the scientific method, approach to understanding, and attitude in research. This contention has recently been supported or at least examined by Vassalli, Grassberger, and Pinatel. Such a position does not negate the mutual interdependence existing in the contributions to this discipline by a variety of other field specializations. Thus, sociology, psychology, psychiatry, the law, history, and biology, with such allied fields as endocrinology, may individually or collectively make substantial contributions to criminology without detracting from the idiosyncratic significance of criminology as an independent subject matter of scientific investigation and concern. One need not adhere to a Comtian hierarchy of the sciences to realize the unity of all knowledge, or, especially, to appreciate that a higher order of complexity of phenomena such as human behavior requires the use of disciplines devoted to specific aspects of this order. As the biochemist must use and rely upon research both in biology and chemistry in order to understand the functional interrelationship of physiological processes, and as the sociologist employs data from biology, psychology, and other disciplines to analyze the dynamic aspects of personality formation within a particular cultural milieu, so does the criminologist need and use related scientific information.

The argument may be made that presently there is no such special separateness to criminology as exists in other disciplines, and that this fact delays the recognition of criminology as a distinct field. The histories of most scientific specialisms follow similar developmental trends, i.e., a branching off from a larger, more inclusive area of investigation; next, an increasingly narrow, refined, and detailed analysis along "idiographic" lines in order to legitimize devoted and disciplined concern with the special subject; and then a return to the "nomothetic" and more enveloping universe of investigation that can embrace a variety of scientific specialties. Thus, it appears that separate disciplines merge and develop in a way that is sympodial rather than unilinear.

The early writings of Della Porta and Lavater on physiognomy and of Gall, Spurzheim, and others in phrenology were not principally concerned with criminal behavior, although references to the criminal occasionally appeared in their studies. Some historical continuity can be traced in medical literature from these writings on physiognomy and on craniology and from those of Pinel, Esquirol, and Rush, to Prichard, Ray, and Maudsley on moral insanity; from Despine and Morel on moral degeneracy to Lombroso on the born criminal and criminal type. Lombroso was primarily a physician and professor of psychiatry before acquiring a reputation as a criminal anthropologist. It was German materialism and French positivism, synthesized through the prism of Lombroso’s medical training, that led to L’Uomo Delinquente in 1876 and to the shift of emphasis from the crime to the offender, from the Classical to the Italian School. The new emphasis gave birth to the concentrated scientific study of crimogenesis that had long before been in embryonic state.

7 Vassalli, Criminologia e giustizia penale, 1 Quaderni di Criminologia Clinica 27, 32-33 (gennaio-marzo, 1959).
8 Bianchi, Position and Subject-Matter of Criminology (Amsterdam 1956). For example, Bianchi says, “The problems of method and subject-matter are of extreme importance to criminology, particularly because this science is still on the very threshold of becoming an independent science.” Id. at 13. It is our belief that criminology has now passed over this threshold.
9 Grassberger, Qu’est-ce la criminologie? in Revue de Criminologie et de Police Technique (1949), cited by Vassalli, supra note 7.
10 Pinatel, La définition criminoïlogique du crime et le caractère scientifique de la criminologie (Chronique de criminologie), in Revue des sciences criminelles et du droit pénal comparé (1957).

11 For an excellent sociological analysis of the history of science, see Merton, Science, Technology and Society in Seventeenth Century England, 4 Osiris 360 (1938).
12 For a general description of the important differences between “idiographic” (pertaining to the description of the unique) and “nomothetic” (pertaining to generalizations and established law), see Becker, Culture Case Study and Greek History: Comparison Viewed Sociologically, 23 Am. Soc. Rev. 489 (1958).
13 Lester F. Ward speaks of social evolution generally as having been sympodial: See his Pure Sociology 71-79 (2d ed. 1925).
14 For discussions of this historical development leading up to Lombroso, see Antinori, I Precursori di Lombroso (Torino, 1930); Bonger, An Introduction
But increasing specialization and delimited concentration ultimately lead to ever-wider areas of inquiry. By probing his subject matter in depth, the scientist eventually reaches a point in his inquiry and hypothesis construction where he asks questions, answers for which must come from more than one discipline. In more advanced stages of scientific inquiry, multi-dimensionality and inter-disciplinarity are almost inevitable. Modifying but not abandoning his ideas of the atavistic criminal, Lombroso late in his career came to see (with the help of Ferri) the importance and necessity of examining the social "causes and remedies of crime."\(^{16}\)

We thus see that maturity of a discipline involves increasing interdependence. The environmental approach in criminology, historically developing from roots distinctly different from Lombrosian precursors, eventually merged with the latter. Contemporary American criminology can be said to have an historical linkage with Guerry, Quetelet, and de Champneuf, who represented the cartographic school of the 19th century, as well as with Tarde's law of imitation, Durkheim's sociological determinism, and the environmental approaches of Ferri, Garofalo, Colajanni, and others.\(^{16}\) The literature on crime, from an environmental perspective, may have grown from ideological bases quite different from those of Lombroso; yet the synthesis has occurred and is even now constantly recurring while inquiry and research proceed in both areas. From medicine, clinical psychiatry, and anthropology, as well as from "political arithmetic" and positivistic attempts at societal reconstruction developed the sympodial branches of criminology that today appear to be emerging as an independent discipline.

The diversity of present-day approaches to the study of crime and criminals can hardly be denied. Sellin has remarked in his introduction to the Swedish handbook of criminology:

"The sociologist studies crime as a social phenomenon and approaches this study with preconceptions, premises, frames of reference and techniques common to sociology, in which he is trained to do research. Psychologists, psychiatrists, endocrinologists, geneticists, and the representatives of many other disciplines similarly contribute to criminological knowledge only to the extent that they use their specialized training and funded knowledge in exploring problems of significance to an understanding of criminality. This is the inevitable result of the growing specialization of scientific work."\(^{17}\) This diversity of approaches may lead some observers to believe that there is not a single separate scientific discipline of criminology. On the one hand, a macroscopic perspective views criminology as a study of crime that includes institutional patterns of law and the social reaction to crime in the form of adjudication and the integrated system of penal sanctions.\(^{18}\) The analysis of crime from this institutional framework is well illustrated by Jerome Hall's\(^{19}\) study of theft, by Radzinowicz's\(^{20}\) review of the history of English criminal law, and by the general field of the "sociology of law."\(^{21}\) On the other hand, microscopic analyses of criminal behavior or personality that attempt to measure significant differences between criminals and non-criminals take the form of biologic, psychologic, psychiatric, and sociologic emphases. In the best sense of eclectic positivism, the Gluecks have generally proceeded in this manner in their contributions to criminological research during the past 30 years.\(^{22}\) It is commonplace in the field of criminology to refer to studies...

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\(^{16}\) Sellin, supra note 14, and Sellin, *En historisk utsökning*, in *Ogce* *et al.,* *Kriminologi* Ch. I (Stockholm 1955).

\(^{17}\) Sellin, *supra* note 16.

\(^{18}\) This kind of analysis of institutional patterns is suggested by Talcott Parsons in his discussion of "integrative institutions," which is part of his structural-functional theoretical system. See *Parsons, The Social System* (1951), and *Essays in Sociological Theory* (rev. ed. 1954).


\(^{21}\) The works of Timasheff, *An Introduction to the Sociology of Law* (1939), and of Gurvitch, *Sociology of Law* (1941), have been standard and well known. For a recent published concern with this topic, see *Symposium on Law and Social Problems, 7 Social Problems* (1959).

\(^{22}\) Such as the following major works of Sheldon and Eleanor Glueck: *500 Criminal Careers* (1930); *One Thousand Juvenile Delinquents* (1934); *Five Hundred Delinquent Women* (1934); *Later Criminal Careers* (1937); *Juvenile Delinquents Grown Up* (1940); *Criminal Careers in Retrospect* (1943); *Unraveling Juvenile Delinquency* (1950); *Physique and Delinquency* (1956); *Predicting Delinquency and Crime* (1959).
of identical twins, endocrinology, and somatotypes in the biological approach; to psychometric testing of intelligence, personality attributes, forensic medicine, and Freudian psychiatry in the psychological approach; and to ecological areas, differential association, culture conflict, role theory, and reference groups in the sociological approach.

Neither the definition of "crime" nor that of the "criminal" is standardized or universally accepted as a unit of criminological research. Perhaps more in the United States than elsewhere there are vital and critical differences in conceptualization of these two terms. It is not merely that criminal statistics are subject to criticism in this country because of state variations in criminal statutes; the Uniform Crime Reports published by the FBI under the auspices of the Department of Justice serve a useful though not totally adequate basis for establishing a crime index for the nation. The problem is deeper than this, however. The formal legalistic definition of crime as the unit of criminological research is posited against the broader conceptualism of conduct norms, anti-social or deviant behavior, and "white-collar crime." The classic report of Michael and Adler and the writings of Tappan and Jeffery suggest that the major perspective of crime should be a legal one. But like Sellin and Sutherland, Gillin has emphasized the need for a wider, sociological unit for analysis by defining crime as "an act that has been shown to be actually harmful to society, or that is believed to be socially harmful by a group of people that has the power to enforce its beliefs and that places such act under the ban of positive penalties." Can these diversities of approach and of operational definitions be considered as parts of a unitary whole? I think the answer is definitely in the affirmative. Analogy is not one of the strongest forms of argument, but it is often useful and convincing. If we examine other disciplines, we see similar diversities and problems of operational definitions. History is not only a methodological tool, it is a field of study as well. As such, history includes an obvious diversity of space-time dimensions to which politics, economics, medicine, technology, art, etc., contribute substantive data and provide theoretical insights. Definitions and delimitations of historical periods still create problems for historians. Because the Middle Ages and the Renaissance merge "like a trainwreck in time" there is no universal agreement about the designation for the period known commonly as "the Renaissance." Similarly with terms such as "classical," "Romantic," "Baroque," etc., debates in historical analysis continue. The study of art can no longer be made on the basis of aesthetics alone, but increasingly requires knowledge of the culture milieu in which the artist and style were born and flourished, and even of psychological insights into the artist's personality.

Is the relatively new area of industrial sociology a contribution to an understanding of industry or of sociology? It is patently both. Does research with lysergic acid contribute to bio-chemistry or to psychiatry? Again, both. The cultural anthropologist who studies the law of primitive man adds to the accumulated literature of both anthropology and criminology. We need not belabor the point further, for differential approaches to the same subject-matter are manifestly present in all disciplines. The predominantly biological and legal orientation of some European criminology, which has a long historical tradition, and the predominantly environmental orientation of American criminology, which is equally linked to its own historical continuity, are simply different approaches to the scientific study of crime and the criminal. So long as theory and research of crime, criminals, and social reaction to both are based upon a normative orientation that is scientific and the goals of which constitute a description, measurement, analysis, or interpretation of patterns, uniformities, causal relationships, and probabilities, we may assert that such theory and research comprise the field and our meaning of criminology.

Finally, if all knowledge is unitary and separate disciplines are but artifacts of analysis, we should expect any single discipline to make contributions to other and especially closely related fields. Specifically, criminology must be more than a recipient of empirical data and theory; it must also give something of substantial value to related areas of science. In this criterion of scientific specificity, criminology shows its weakest side. Probably because criminology is still a young science and temporally close to its nascency, it has not given as much as it has received. We cannot here engage in the polemics of measuring or reciting the quantity or quality of research and theory that freely flows to and from the field. However, despite its acknowledged indebtedness to other disciplines, criminology has made important contributions to the fuller understanding of deviant behavior, conduct norms, personality formation, biological and psychological mechanisms of individual behavior, subcultural patterns of institutionalization, the structural-functional approach of social analysis, learning theory, class and status hierarchies, role theory, psychopathology, law, history, and philosophy. Moreover, criminology has used practically every particular tool of scientific research and has thereby strengthened and embellished these techniques through usage. The statistical, historical, clinical, life-history, experimental, etc., have been employed to advantage in every country where criminology has achieved the status of a university discipline. That teaching and research in criminology may be performed principally in schools of law or medicine in one country or region (as is the case in Europe) and mostly in departments of sociology in another country (as is the case in the United States) affects only the primary orientation of criminology. But differences in administrative localization also add to the diverse contributions that criminology may make. Increasingly in the future, criminology should be able to absorb disciplinary diversity and to provide more theoretical and empirical services to related disciplines, whether these areas be law, history, sociology, psychology, or biology.

We have said nothing thus far about penology. It is standard textbook practice in America to include the subjects of probation, parole, imprisonment, and other treatment or punishment procedures in the latter section of the book. May we legitimately include "corrections" or "penology" under our meaning of criminology? The answer, I believe, should be negative if by "corrections" is meant the social work activities of probation and parole officers, the organization and administrative functions of the police, or the management of penal institutions. The answer should be affirmative, however, if we mean, as previously indicated, the scientific analysis, measurement, and interpretation of patterns, regularities, causal or associational relationships and probabilities of the same subareas of criminology. If control and prediction in experimentation are integral goals of research and, regardless of the substantive area, if analysis proceeds by means of the scientific method, then we may include within the scope of criminology any correctional research that embraces these goals and this method. Matters purely of public administration may have peripheral interest but do not constitute a science of crime. Technical operations in the management of a police force or of a prison do not fall within our framework of reference to criminology. Historical studies that trace the evolution of punishment, if properly conceived and executed, may very well be included in criminology. Various kinds of analyses of the police, judicial, and penal statistics are part of criminology, but the mere tabulation of a prison population certainly is not. Any study of the offender after the crime that seeks to understand the causal or treatment process and that employs a scientific perspective and method is contained within our meaning of criminology. Group or individual psychotherapeutic analyses, as well as prison community and parole prediction studies should be included. Phenomenological studies of such crimes as homicide, embezzlement, narcotics, etc., and even taxonomic exercises establishing Weberian ideal types for purposes of analysis are legitimate areas of criminology.

The question whether it is necessary to divide the discipline into "pure" criminology and "applied" criminology is now rarely raised in the United States, although the dichotomy of pure and applied sociology has been an issue in that discipline since the days of Auguste Comte and more especially in America since the writings of

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24 For recent discussions of the meaning of criminology in the area of penology, or corrections, see the entire issue of 40 The Prison Journal (1960).
Lester Ward. A socially utilitarian end that directs the course and sets the framework for analysis in a research design has been considered applied research; thus practical and almost immediate application of research for preconceived administrative purposes would connote "applied criminology." If the research aided the police to make investigations or to collect evidence leading to the arrest of an offender, or if research helped the probation or parole officer to work more effectively among those in their charge, the research would appear to be "applied" criminology. As Greenwood has indicated, this original dichotomy between pure and applied research is breaking down today. Because an administrative organization designates the area of interest and thereby to some extent sets the limits to the number and kinds of variables to be measured or to the goals of research, this action does not per se reduce the "purity" of scientific analysis. A public authority that offers direction to investigation may in fact be an encouragement to research; and whether or not the findings have practical applicability does not determine the scientific character of research. 

But interference in the scientific process, public policy that alone dictates choice of research methods or suppression, distortion, or falsification of data are among the things that destroy scientificity. These are the major considerations of consequence in so-called "applied" criminology.

Rather than the question of "pure" versus "applied" criminology, the primary question is whether the process of application of criminological research findings should be labeled criminology. Our reply is negative and concurs with earlier related remarks made by Sellin. Use of scientific findings in social work relationships with clients (or, more precisely in this consideration, with criminal offenders) may be highly desirable but does not constitute science, hence, is not criminology. The juvenile court judge who would make use of the "Social Prediction Scale" devised by the Gluecks and suggested by them as an appropriate guide in sentencing, is not engaging in a scientific pursuit. What the Gluecks have done is criminology; what the judge does with the results of criminology is public administration.

Thus we see that application of scientific research findings is not criminology—with one obvious exception: If these research findings are used by another researcher in criminology, either in the form of a replicated study as documentary support or as propositions upon which new hypotheses are constructed, a form of application is manifestly for scientific purposes, is absorbed once again into the scientific process, and is quite different from application in criminal policy. Therefore, in slight modification of our original contention we may say that application of scientific research for scientific research is criminology; whereas, application of research in nonscientific pursuits is not criminology.

**Who Is A Criminologist?**

Having defined and described the meaning of criminology, we have simplified our task of determining who is the criminologist. Generally speaking we shall contend that a criminologist is anyone engaged in the pursuit of learning embraced by our meaning of criminology. A criminologist is one whose professional training, occupational role, and fiduciary reward are concentrated toward a scientific approach, study, and analysis of the phenomena of crime and criminal behavior. However, because we have referred to the wide diversity of approaches to the understanding of crime, questions may arise regarding the designation of "criminologist" when applied to specific individuals who contribute segmental information to the field from other disciplines.

A physical anthropologist who participates in an interdisciplinary research on delinquency or crime, making anthropomorphic measurements of a control group and an experimental group of delinquents, is not, by reason of this isolated activity, a criminologist. Hooton's excursion in 1938 with *The American Criminal* did not gain the general criteria of the "professional role" of the criminologist are substantially the same as those used by Parsons in his discussion of the meaning and role of the "sociologist." See, Parsons, *Some Problems Confronting Sociology as a Profession*, 24 AM. SOC. REV. 547 (1959).

for him a high status in criminology, although there was no impairment of his reputation as a physical anthropologist. William Sheldon\textsuperscript{43} likewise is not a criminologist because of his Varieties of Delinquent Youth\textsuperscript{44} any more than is Seltzer,\textsuperscript{42} who aided the Gluecks in Unraveling Juvenile Delinquency. This is to say that a physical anthropologist cannot also be a criminologist. Should the application of anthropometry be made principally and regularly in the pursuit of hypotheses regarding crime and criminals, and should the body of scientific knowledge accumulated in general criminology be absorbed by the anthropologist in his training, then he most properly may bear the mantle of criminologist.

Correspondingly, the psychometrician or clinical psychologist does not \textit{ipso facto} become a criminologist because he submits a Wechsler Bellevue Test to criminal subjects or because he interviews 200 inmates in a prison. Application of the Rorschach test to 500 delinquents does not qualify the administrator as a criminologist. And the sociologist who teaches a single undergraduate course in criminology as his only professional contact with the field is a sociologist but does not meet our standards for a criminologist.

It becomes clear then that regardless of the diverse nature of contributory professions to criminology there is an independent discipline to be learned and a special professional role to be performed. Whereas it is true that no criminologist can function as a "pure" criminologist without some other type of training and orientation (sociology, psychology, psychiatry, the law, etc.), there is a unit of analysis, a framework of reference, and a body of collected, organized, and analyzed knowledge available constituting required learning before an individual can function as a scientific student in any field of criminology. Probably no scientist exists who is unadulterated by the data or theory of some other discipline than his own. (Perhaps only the mathematician can be "pure" in this sense, but then we might contend that mathematics is either a tool or, in its higher complexities, sophisticated artistry and not a science.) The student of criminology could conceivably be trained with so broad an eclecticism that no single disciplinary orientation would dominate his thinking, but the present pedagogic arrangements, at least in American universities, would make such a person a rarity. Consequently our generalization must be that although the criminologist usually has a simultaneous or antecedent training in some discipline other than criminology, the other discipline becomes the avenue through which he enters criminology. The orientation is that which he brings into play as he engages in study and research in criminology. Thus, the anthropologist, psychiatrist, psychologist, and sociologist who have also obtained mastery, understanding, and knowledge of the body of information and research contained in the field of criminology and whose professional roles are centered around the study and research of crime or of criminal behavior are all criminologists.\textsuperscript{43}

At present the title of criminology is indiscriminately used to refer to anyone whose professional activity is focused on criminals. The probation officer, the psychiatrist in a penal institution, the technician in a ballistics section of a police department, the lie-detector analyst, the investigator for the district attorney's office, and even the professor of criminal law have occasionally been referred to as "criminologists."\textsuperscript{45} It is our contention that none of these persons, by reason of only one of these professional roles, is a criminologist, and that none of the results of performing these roles constitute criminology. What, then, can we say about the police officer, the lawyer, the judge, the prison superintendent, probation and parole officers, and persons engaged in similar tasks? There is, of course, no simple or categoric answer but there is an answer consistent with our foregoing remarks about the meaning of criminology and the function of a criminologist.

If any one of these persons in pursuance of his occupational role is principally devoted to the task of \textit{scientific} study, research, and analysis of the phenomenon of crime, criminal behavior, or treatment of the offender, his role is that of a criminologist. It is generally unlikely that any of the aforementioned persons is thus occupied. In

\textsuperscript{42} Seltzer, \textit{A Comparative Study of the Morphological Characteristics of Delinquents and Non-Delinquents, in S. \\& E. Glueck, Unraveling Juvenile Delinquency Appendix C (1950).}

\textsuperscript{43} Cf. Sellin who says: "The 'criminologist' does not exist who is an expert in all the disciplines which converge in the study of crime." \textit{Op. cit. supra} note 8, at 22-23.

Concerned with this same problem, Bianchi seems to feel differently: "Any psychiatrist entering into the field of criminology and reckoning delinquents among his patients, has to be a criminologist into the bargain, from which follows that he should be well acquainted with the entire field and know all the details of the problems of crime and man." \textit{Op. cit. supra} note 8, at 22-23.
most cases the closest they need come to being “scientists” is in the application of criminological research findings, but as we have elsewhere indicated this kind of application is not criminology. We may refer to some of them, as Sellin has earlier done, as “technologists,” and the work in which they are engaged as “crimino-technology.” Working with criminal offenders or having one’s daily work principally connected with criminals is not a sufficient criterion for designation as a criminologist; else we would be at the reductio ad absurdum of claiming that a criminal himself should bear the label of criminologist. The role of a peace officer consists of preventing, detecting, and investigating crime; arresting and interrogating criminals; and making them available for judicial action. He may make use of scientific knowledge such as may be found in chemical analyses of blood stains, in ballistics reports, and even in using encephalographic machinery, but he is engaged in application not in production of scientific knowledge. He may be partially responsible for providing the raw datum to be used later in research, but obviously this activity is not science (any more than that of the census enumerator). If application of scientific research were criminology then the criminal who used a revolver (which is a material culture trait resulting from scientific research in the use of explosive elements) instead of a bow and arrow would be scientific and a criminologist. The absurdity of this example should make abundantly clear the meaning that must be given to the term “criminologist.”

Our conception of criminology has not been so narrow that the study of criminal law, judicial process, and penal treatment of the offender has been excluded. Thus, study, research, and analysis that proceed along methodological lines embraced by science can be made by the student of law, members of the judiciary, and administrators or executors of penal treatment. However, the practicing attorney, the sitting judge, and the superintendent of the prison are not criminologists merely by reason of their occupational relationships to crime and criminals, any more than the criminologist who does research on the sentencing power and functions of judges is a judge. That two compatible professional roles may be performed simultaneously is, of course, possible, so that a prison administrator may also be a criminologist if he should design, direct, or supervise a criminological research program in his institution. By the same logic a criminologist may be administrative chairman of a university department of sociology; the two statuses are compatible but distinctly different.

By now it should be obvious that probation and parole officers may apply knowledge accumulated from research in social work, psychology, and psychiatry but that they are not criminologists. The art of working with people, of guiding, supervising, directing, operating upon, or controlling others remains an art whether or not scientific principles are applied in such interaction. Similarly custodial officers in a prison, though surrounded by and working constantly with prisoners, are not criminologists.

**Conclusion**

I believe that we have provided a logically consistent and circumscribed position: a criminologist is one whose professional role is devoted to criminology. Any definition of criminology inferentially sets limits to the role of a criminologist. Our definition of criminology, though wide in the scope of subject matter contained within the field, is narrow in terms of procedural processes and purposive goals. There are differences of opinion among criminologists about the inclusion and emphasis of certain types of subject matter in criminology. This is a substantive and theoretical matter for discussion and debate. However, it should be clear and unmistakable that criminology means the use of scientific methods in the study and analysis of regularities, uniformities, patterns, and causal relationships concerned with crime, criminals, or criminal behavior.

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