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RESEARCH REPORTS

TOWARD CONSTRUCTION OF A THEORY OF DELINQUENCY*

AUSTIN T. TURK†

Among sociologists, Zetterberg¹ and Gross² have argued effectively for the view that the significance of a statement is problematic until its precise relation to an "axiomatic" theory is known. Though one may have reservations about such formalization,³ the writer believes that it will be of strategic value in the study of delinquency to assume not only that the view is correct but also to insist that the word "theory" properly refers *only* to explicit propositional systems. Though precision and clarity are generally understood to be among the hallmarks of scientific theories, by far the greater part of criminological thought cannot be characterized as either precise or clear from a strict theoretical viewpoint. Without in any sense minimizing the value of sustained theoretically relevant discussion of delinquency,⁴ it does now seem time to extend the concept of "research

economy" to the presentation of theoretical alternatives. The rich prose of theorizing—though to some extent necessary, enjoyable, and inevitable—tends to obscure possibilities and issues possibly as often as it defines them, and to slow the verification process—especially when it is mistakenly assumed that such relatively lavish verbal displays, however ingenious and promising, actually constitute theories. The processes of scientific thinking should, of course, be as public as possible, since scientists are concerned with implicit leads found in preliminary discussions as well as with finished products. Nevertheless, at some time in the development of a science emphasis must shift from the pursuit of unexplored subtleties to the rigorous formulation and testing of theories. Though criminologists have been greatly concerned with stating and examining explanatory hypotheses—very often, as Riemer⁵ once said, "fished out of the mudhole of common sense" and "vaguely connected with other half-truths about society and the adjustment problems of its members"—the problems of systematic theory-construction have scarcely been recognized. There have been tendencies to confuse theorizing with theory and hypothesis-testing with theory-testing, while the undefined processes by which "orientations" come into being have rarely been supplemented by explicit, logically defensible procedures for constructing deductive chains. The sociology of crime and delinquency has advanced to the point where, in this writer's opinion, emphasis may profitably be placed upon the construction of systems, so that the interrelations and implications of ideas can be efficiently considered as criminologists apply "the criterion of testability . . . to comprehensive systems of hypotheses rather than to single statements."⁶

SCOPE OF THE THEORY

The traditional assumption that a theory of delinquency must necessarily be a theory of delin-

* Most of this study in both its theoretical and empirical aspects was carried out during the tenure of a Predoctoral Research Fellowship from the National Institute of Mental Health, United States Public Health Service. The verification research is reported in detail in the author's unpublished Ph.D. thesis, "Adolescence and Delinquency in Urban Society: A Study in Criminological Theory" (University of Wisconsin, 1962). In addition, empirical studies utilizing the same data on delinquency and providing further details of a descriptive and procedural nature are reported in the following unpublished masters theses: Robert M. Terry, "Criteria Utilized by the Police in the Screening of Juvenile Offenders" (Wisconsin, 1962), and Charles M. McCaghy, "Social Areas and Distribution of Juvenile Delinquency in Racine, Wisconsin, 1950-1960" (Wisconsin, 1962).

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¹ ZETTERBERG, ON THEORY AND VERIFICATION IN SOCIOLOGY 9-28 (1954).

² Gross, *Theory Construction in Sociology: A Methodological Inquiry*, in SYMPOSIUM ON SOCIOLOGICAL THEORY 531-64 (Gross ed. 1959).

³ *Id.* at 535-38.

⁴ The author completely agrees with David Bordua's conclusion that theorizing about delinquency "has led to some of the most exciting and provocative intellectual interchange in all of sociology in recent years." *Delinquent Subcultures: Sociological Interpretations of Gang Delinquency*, 338 ANNALS 119 (1961).

⁵ Riemer, *Theory and Quantitative Analysis in Criminological Research*, 48. AM. J. SOCIOLOGY 188 (1942).

⁶ HEMPEL, FUNDAMENTALS OF CONCEPT FORMATION IN EMPIRICAL SCIENCE 43 (1952).

quent behavior has aggravated the debate between the more legalistic and those more concerned with problem behavior. Writers such as Wilber and Vold,⁷ Cressey,⁸ and Jeffery⁹ have worked toward a resolution of the resultant theoretical and research difficulties by asserting the importance of value conflict, of conditions affecting the definition and recording of crime, and of legal social and cultural patterns in the study of crime. Since virtually any person under, generally, 18 years of age could be legally defined as a delinquent in the United States,¹⁰ such considerations may be even more pertinent to a study of delinquency as distinguished from adult crime. It seems apparent that *delinquency* is, from an operational standpoint, not actually a class or combination of classes of behavior, but rather a definition of pre-adults by those in a position to apply legal definitions. This is *not* to say that no relation exists between law and juvenile behavior.¹¹ While

⁷ Wilber, *The Scientific Adequacy of Criminology Concepts*, 28 SOCIAL FORCES 165 (1949); VOLD, THEORETICAL CRIMINOLOGY, esp. 203-19, 279-81 (1958).

⁸ Cressey, *Foreword* to SUTHERLAND, WHITE COLLAR CRIME, xii (5th ed. 1961).

⁹ Jeffery, notably the following: *The Structure of American Criminological Thinking*, 46 J. CRIM. L., C. & P.S. 658 (1956); *Crime, Law and Social Structure*, 47 *id.* 423 (1956); *An Integrated Theory of Crime and Criminal Behavior*, 49 *id.* 533 (1959).

¹⁰ Cohen & Short, *Juvenile Delinquency*, in CONTEMPORARY SOCIAL PROBLEMS 77-126, 81 (Merton & Nisbet eds. 1961).

¹¹ Jerome Hall has, in his own efforts to clarify the distinction between legal and behavioristic concepts of crime, on many occasions, pointed out that not only have the "classicists" often failed to recognize the difficulties to which a strict legalism leads, but the students of behavior have tended to minimize the significance of laws and legal processes for any study of "criminality." His view is that law and human behavior are interrelated; laws result from experience. *STUDIES IN JURISPRUDENCE AND CRIMINAL THEORY*, *passim* and esp. 200-14 (1958). The work of Paul Tappan has been another important correction factor for students of criminal and delinquent behavior in that he has, rightly, insisted upon the relevance of legal definitions and procedures—without, however, solving the problems of carrying out behavioral research from a legalistic position. In *JUVENILE DELINQUENCY*, at 30 (1949), he defines a *delinquent* as "a person who has been adjudicated as such," but proceeds to discuss the general, psychological, biological, and social causes and conditions of *delinquency* defined as "any act, course of conduct, or situation which might be brought before a court and adjudicated." *Ibid.* Thus, legal distinctions, though the criteria are vague, arbitrarily define the distinctions which will be allowed for the purposes of behavioral research. One might well ask, why should biological and other differences between delinquents and non-delinquents be expected when we know that the only completely reliable criterion is the fact of identification itself, which is a legal and not a scientific behavioral determination?

problem behavior is variously defined and variously handled, the fact remains that it is something about the behavior of pre-adults that provokes age-specific enactment, interpretation, and enforcement of laws. The point is that the *interaction* of behavior and legally supported expectations is the stuff of which records are made, and not merely the *action* of underage "deviants." Moreover, this is interaction over relatively long periods involving thousands of juveniles and adults, and presupposes nothing about the behavior of any particular individual who happens to be labelled a delinquent in one moment of a very complex history of relations between adults and pre-adults. In the absence of reliable *behavioral* data, the sociological problem for now hardly seems that of explaining specific offensive behavior, but rather that of explaining variations in the reactions of official representatives of the adult political community to provocative juvenile actions and attributes, whatever these may be and however vague may be the legal criteria. The problem of delinquency—as conceptualized in this study—is *illegitimation*, the assignment of an individual to the status of offender,¹² and not behavior assumed to characterize the offender. Consequently, the theory which is being developed is a limited sociological theory of delinquency as a socio-legal phenomenon.¹³

DEFINITION OF TERMS

Concepts of *illegitimation*, *social position*, *dominance* and *disadvantage*, *social* and *cultural conflict*, and *urbanism* represent lines of theoretical development which may be usefully brought together in a sociological theory of delinquency. A survey of the history of thought and research represented by each concept and a discussion of the issues with respect to each are beyond the limits of this paper. At great risk of seeming to ignore problems of fundamental concern, terms will be briefly defined in relation to the purposes at hand, with no special effort to conform to one or another traditional view regarding the use of particular words.¹⁴ The meanings of words will

¹² KORN & McCORKLE, CRIMINOLOGY AND PENOLOGY 42-48 (1959).

¹³ That is, a "macro" theory in the Moles-Lippitt-Withey framework. MOLES, LIPPITT & WITHEY, A SELECTIVE REVIEW OF RESEARCH AND THEORIES CONCERNING THE DYNAMICS OF DELINQUENCY 127 (1959).

¹⁴ Perhaps it should be stressed that the words refer not to specific variables but to theoretical constructs,

be restricted to the following definitions, which are developed cumulatively as part of the attempt to organize and communicate a number of ideas in an axiomatic form.

Illegitimation is the process by which an individual or category of persons is assigned the status of criminal, i.e., "adjudged to be punishable (or 'treatable') by the authorities in continuous political control over the territory in which he is" because of "an act or omission" ascribed to the person or persons.¹⁵ No assumptions are made as to the actual behavior of illegitimated persons.

Social position refers to the location of one or more individuals in a social structure, a network of interrelated and in part interdependent activities. Expected patterns of activity, or roles, are associated with social positions, which are differentially valued largely according to the significance placed upon the behavior expected from individuals in different locations. Of special importance is the fact that generation, or age, is a universal criterion for locating individuals in a social structure. Although other criteria will enter in as well, the distinction between an *adult* and a *pre-adult* is fundamental.¹⁶

Social disadvantage and *dominance* are concepts recognizing that difference in social position implies, to a greater or lesser extent, differences in access to resources and opportunities, i.e., differences in power—the ability to realize goals even against opposition. At the same time, differential exposure to given kinds of experiences and vulnerability to given kinds of pressures and hazards are implied.¹⁷ The essential element in the relations between adult and pre-adult social positions is the relative dominance of adults and disadvantage of pre-adults; a strict chronological distinction is inadequate even though age is a relevant variable. Reciprocal expectations, patterns of activity, and the emphasis placed upon the values of leisure¹⁸

also serve to distinguish full-fledged from apprentice members of a society.

Culture conflict is a conflict of attitudes or meanings to be assigned to objects and situations—which assumes that the concept *culture* refers to the ideational, as distinguished from the associational and behavioral, aspects of human living. The actions of agents of differing cultures tend to some degree to be at odds, since men act on the basis of their interpretations of what is going on around them. Nevertheless, it is crucial to distinguish between the conflict implicit in different views and feelings and the conflict expressed in some direct or indirect manipulation of the environment—which is the difference between *culture conflict* and *social conflict*. While they correlate to a significant degree if human behavior has rhyme or reason, the specific ways in which culture conflict may come to be expressed in social conflict will vary with the tools and perceived opportunities available to the actors and with their involvement in particular cultural patterns. The universality of *some* culture conflict between pre-adults and adults is well attested.¹⁹ Increasing barriers between pre-adult and adult social positions is a major theme in much contemporary discussion of crime and delinquency, with attention being devoted to the emergence of fairly autonomous "adolescent societies and cultures" that are "the principal training institution of the adolescent period"²⁰ and "focus teen-age interests and attitudes on things far removed from adult responsibilities, and which may develop standards that lead away from those goals established by the larger society."²¹ To postulate relatively independent social and cultural patterns among pre-adults is not to ignore the fact that such patterns are found within larger social and cultural settings,²² but simply represents an effort to specify

which can never be completely defined by some grouping of terms in a direct empirical equation or sufficiently validated by observed empirical regularities. MacCorquodale & Meehl, *Hypothetical Constructs and Intervening Variables*, in READINGS IN THE PHILOSOPHY OF SCIENCE 596-611, esp. 605-06 (Feigl & Brodbeck eds. 1953).

¹⁵ KORN & MCCORKLE, *op cit. supra* note 12, at 45-46.

¹⁶ EISENSTADT, FROM GENERATION TO GENERATION: AGE GROUPS AND SOCIAL STRUCTURE (1956).

¹⁷ Robert Merton and Robert Nisbet list differential exposure and vulnerability as a major premise of the sociological orientation. CONTEMPORARY SOCIAL PROBLEMS, at ix (Merton & Nisbet eds. 1961).

¹⁸ Matza & Sykes, *Juvenile Delinquency and Subter-*

anean Values, 26 AM. SOC. REV. 712 (1961). Bennett Berger's discussion appears to drive in the opposite direction to the same general conclusion: that "youthful" values are not bound chronologically but are found in the cultures both of the young and the old. Berger, *On the Youthfulness of Youth Cultures*, 30 SOCIAL RESEARCH 319 (1963).

¹⁹ Davis, *The Sociology of Parent-Youth Conflict*, 5 AM. SOC. REV. 523 (1940); BLOCH & NIEDERHOFFER, *THE GANG: A STUDY IN ADOLESCENT BEHAVIOR* (1958).

²⁰ AUSUBEL, THEORY AND PROBLEMS OF ADOLESCENT DEVELOPMENT 341 (1954).

²¹ COLEMAN, *THE ADOLESCENT SOCIETY* 9 (1961).

²² The differences in opportunities to learn and commit both legal and illegal patterns as such differences are determined by the larger social structure have been emphasized in CLOWARD & OHLEN, *DELINQUENCY*

more precisely the patterned influences upon youth of most immediate significance in understanding their behavior in relation to adult interpretations and responses. As Davis noted, "to understand how our society brings to expression the potentiality for conflict, indeed to deal realistically with the relation between the generations, we must do so not in generalized terms but in terms of the specific 'power situation'."²³

Cultural diversity and conflict, mobility, shifting patterns of social relations, individualism, secularism, materialism, and de-emphasis of personal commitment in primary relations in favor of segmental, impersonal contact in secondary relations—all have been suggested as characteristics of *urbanism*.²⁴ The concept refers to more rather than less of the indicated attributes of social and cultural patterns, assuming a continuum instead of an urban-rural dichotomy.²⁵ Derived in large part from the Shevky-Bell formulation,²⁶ the components of *urbanism* as the concept is presently used are (1) considerable—the minimum being unknown—population size and density, (2) functional specialization of a high order, (3) individualization and structural flexibility in living patterns, and (4) cultural diversity. These components appear to be synonymous with the conditions under which relatively independent social and cultural patterns are elaborated among pre-adults.²⁷ A distinctive pre-adult "society" requires, in the first place, that juveniles be relatively free of informal social

control techniques. A positive association between urbanization and the decline of such controls is now well established. Population size and density beyond a certain point prohibits the degree of extended family-based interaction required for the development and maintenance of effective informal controls. Secondly, occupational specialization and functional interdependence—especially in conjunction with a scientific technology—implies differentiation of the trained from the untrained, as well as job performance by individuals in relatively segregated, highly technical work contexts. Juveniles are, of course, untrained for participation in any but the least demanding occupations, and are thereby barred from interaction with adults in what is perhaps the major sector of adult life. Thirdly, individualization means the emancipation of juveniles as well as adults from the dictates of primary groups such as the family; highly structured living patterns tend to be replaced by relatively flexible living patterns that are more conformable to individual inclinations and activities than to "home group" interests.²⁸ Finally, cultural heterogeneity implies the absence of common standards to which pre-adults might be held; thus, the standards which one individual or group might try to impose are unsupported or even contradicted by other individuals or groups. *Urbanism*, then, refers to the matrix within which conflict between adults and pre-adults develops as the gap between their experiences widens.²⁹ Given an often inconsistent variety of cultural expectations, a great deal of personal liberty for both pre-adults and adults, little real knowledge of or significant contact with the adult world on the part of pre-adults, the anonymity found in large populations and the presence of large numbers of individuals in similar unstructured, unsupervised, segregated, and subordinate social positions, the accentuation of pre-

AND OPPORTUNITY: A THEORY OF DELINQUENT GANGS (1960). Albert Cohen stresses clashes between larger class cultures as basic sources of delinquent gang patterns. COHEN, *DELINQUENT BOYS: THE CULTURE OF THE GANG* (1955). To avoid the tendency to exaggerate cultural variants which the concept of delinquent subcultures appears to encourage, the concept of "contraculture" is suggested as a more valid alternative. For a discussion of subculture and contraculture as supplementary concepts, see Yinger, *Contraculture and Subculture*, 25 AM. SOC. REV. 625 (1960).

²³ Davis, *supra* note 19, at 529.

²⁴ CLINARD, *SOCIOLOGY OF DEVIANT BEHAVIOR* 65-76 (1963).

²⁵ *Id.* at 67-68, 76-77.

²⁶ SHEVKY & BELL, *SOCIAL AREA ANALYSIS* (1955).

²⁷ EISENSTADT, *op. cit. supra* note 16, states that in "universalistic" modern societies industrialism (pp. 170, 178), limited scope of the family (170), social mobility (177), preparatory education for specialized occupational roles (160 ff., 228), and other characteristics of these societies are associated with "a great plethora of youth groups, youth agencies and general consciousness of youth as a problem" (178), as well as with the more intense "scope and vitality" of such groups (170).

²⁸ Research indicates that family controls are largely supplanted by peer controls rather soon in highly urbanized areas. Toby, *The Differential Impact of Family Disorganization*, 22 AM. SOC. REV. 505 (1957); Short, *Differential Association With Delinquent Friends*, 1 PAC. SOC. REV. 20 (1958); Bowerman & Kinch, *Changes in Family and Peer Orientation of Children Between the Fourth and Tenth Grades*, 37 SOCIAL FORCES 206 (1959).

²⁹ Two thoughtful writers on the subject of delinquent behavior have concluded that "the contemporary youth-adult conflict, although in essence the same as in the past, is much sharper, more acute, and much more in evidence." KVARACEUS & MILLER, *DELINQUENT BEHAVIOR: CULTURE AND THE INDIVIDUAL* 25 (1959).

adult social organizations and contracultures is to be expected.

A preliminary or "working" intergenerational conflict theory of delinquency is now advanced, using the concepts defined in the preceding discussion.

A THEORY OF DELINQUENCY

Informally and briefly, it is suggested that variations in the incidence of pre-adult illegitimation are mainly accounted for by variations in the extent to which pre-adults are free to elaborate cultural and social patterns conflicting with the expectations of adults, in particular those adults who are dominant in the larger social structure, i.e., whose attitudes are most likely to be reflected in legal definitions and actions. Presentation of a theory consisting of six postulates and nine implications of the postulates does not imply that the theory is completely satisfactory, that all possible implications have been made explicit, or that the writer considers it to be an actual *system*.³⁰ It is offered not only as a contribution toward a "macro" explanation of delinquency, but also as a stimulus to empirical research directly concerned with the testing of explicit theory and as a stimulus to theoretical efforts directly concerned with the concise statement of systematically related ideas.

Postulates

1. Difference in *social position* implies difference in *culture*.
2. Difference in *culture* implies some degree of *culture conflict*.
3. To the extent that *culture conflict* is expressed in *social conflict*, *illegitimation* of the relatively *disadvantaged* by the *dominant* will result.
4. The *social position* of *pre-adults* is universally *disadvantaged* relative to *adults* in the same society.
5. The *social position* of *pre-adults* is to some extent different from and independent of the *social position* of *local adults*, i.e., those with whom *pre-adults* live.
6. The relative independence of *pre-adult* social and cultural patterns increases with *urbanism*.

³⁰ Any efforts to develop systems of propositions constituting criminological theories must be with full understanding that (1) there are always assumptions beyond explicit postulates, (2) the use of words rather than completely neutral symbols inevitably means compromising the rigor of the would-be system, and (3) there is no such thing as a finished theory. Cf. Gross, *supra* note 2, at 540-41.

Implications³¹

1. A difference in social position implies a degree of culture conflict. (from Postulates 1, 2)
2. There is always some culture conflict between pre-adults and adults. (from Postulates 1, 2, 4)
3. To the extent that culture conflict between pre-adults and adults is expressed in social conflict and that the adults are dominant in the larger social structure, illegitimation of the pre-adult will result. (from Postulates 1, 2, 3, 4)
4. To the extent that culture conflict is expressed in social conflict, illegitimation of pre-adults will be positively associated with the difference between the social positions of pre-adults and of adults dominant in the larger social structure. (from Postulates 1, 2, 3, 4)
5. Culture conflict between pre-adults and between pre-adults and non-local adults is to some extent independent of culture conflict between adults and between adults and non-local pre-adults. (from Postulates 1, 2, 3, 4, 5)
6. Illegitimation of pre-adults will vary to some extent independently of the illegitimation of local adults. (from Postulates 1, 2, 3, 4, 5)
7. To the extent that culture conflict is expressed in social conflict, the extent of independent variation in the illegitimation of pre-adults and of adults will be positively associated with the cultural difference between them. (from Postulates 1, 2, 3, 4, 5)
8. Culture conflict between pre-adults and adults, especially adults dominant in the larger social structure, increases with urbanism. (from Postulates 1, 2, 4, 5, 6)
9. To the extent that culture conflict is expressed in social conflict, illegitimation of pre-adults will be positively associated with urbanism. (from Postulates 1, 2, 3, 4, 5, 6)

RESEARCH ASSUMPTIONS

In the process of translating the theoretical propositions into testable operational hypotheses either of two contradictory assumptions must be accepted under the conditions limiting most empirical research. Theoretical advance is most likely

³¹ These represent primary inferences drawn from combinations of postulates, a possible 57, and are statements that appear to make "the most sense" in regard to verbal communication. In addition, some coalescence of relatively trivial separate implications seemed desirable. Secondary and higher-order inferences on the basis of combinations of postulates with theorems, theorems with theorems, and so on are not of pressing concern at the present stage in theory construction.

to result when results are available from studies carried out under each assumption. The assumptions are as follows:

1. *There is a direct positive association between culture conflict and social conflict, i.e., between measurable difference in culture³² and measurable difference in behavior.* Therefore measurable difference in behavior expressing a measurable difference in orientation toward the same values, beliefs, and normative expectations implies a measurable degree of conflicting behavior, resulting in the illegitimation of those with relatively less influence upon the enactment, interpretation, and application of laws.

2. *There is no direct positive association between culture conflict and social conflict, i.e., between measurable difference in culture and measurable difference in behavior.* Therefore, a measurable difference in behavior expressing a measurable difference in orientation toward the same values, beliefs, and normative expectations does *not* necessarily imply a measurable degree of conflicting behavior resulting in the illegitimation of those with relatively less influence upon the enactment, interpretation, and application of laws.

If the first assumption is accepted, measurement of orientation, attitudes, will be sufficient to infer a degree of conflicting behavior. Correlations between attitude scores and illegitimation rates will be determined, along with other correlations between illegitimation rates and measures of social position—with inferences about dominance and social disadvantage—and urbanism. If the second assumption is accepted, a measure of social conflict can be obtained only in the observation of actual conflicting behavior. Measures of attitudes will be obtained only in order to test for possible associations with social conflict. Correlations between social conflict scores and illegitimation rates will be determined, along with other correlations between illegitimation rates and measures of social position—again with inferences about dominance and social disadvantage—and urbanism. This is, of course, the old problem of attempting to predict behavior from attitude or personality measures. Theoretical and technique preferences determine how it is temporarily resolved for the purpose of getting on with research. Research economy, a disinclination to invest so much of life and to “get

dirty” directly observing human behavior in natural settings, and the great obstacles to participant observation have apparently forced most students of human behavior to settle for measurement of orientation and for “interview, or laboratory behaviors.” The popularity of psychological measurement suggests that the majority of behavior scientists expect one day to demonstrate direct relations between their measures and variations in human behavior. In any event, many considerations adding up to research economy led to acceptance of the *first* research assumption in the following study, which was an effort to test some of the implications of the theory presented above.

A VERIFICATION STUDY

A hypothesis constitutes a prediction regarding the relations among *classes* of variables, since it is classes of phenomena as defined in a theory which are of concern and not any particular event or any particular observation.³³ In any given verification study the specific variables in each class will depend upon the quality and availability of information. Part of the controversy between “theorists” and “empiricists” has been due to the neglect by both of the problems of relating variables to theoretical constructs in valid and reliable ways. The flat assertion that a particular variable does or does not represent what some theorist is talking about simply reinforces mutual disdain and ignorance of the opponent’s domain of competence. At present, the most *reliable* techniques for classifying and selecting variables in terms of theoretical relevance may be those of factor analysis.³⁴ Consequently, factor analysis was utilized as a classifying and selecting device in the manner described below. The problems in verification research are (1) to obtain presumed indicators of urbanism, illegitimation, social position, and culture conflict, (2) to establish the reliability and validity of the variables as indicators, and (3) to formulate hypotheses in regard to the best available indicators, and test the hypotheses.

³³ Other than theoretical objectives may demand the use of particular variables.

³⁴ Raymond Cattell asserts that, “with factor analysis we can experiment with [hypotheses] that extend to statements about the *number* of factors at work in a situation, the *nature* of the factors, their degree of *interaction*, and the *magnitude* of their influence.” CATTELL, *FACTOR ANALYSIS: AN INTRODUCTION AND MANUAL FOR THE PSYCHOLOGIST AND SOCIAL SCIENTIST* 20-21 (1952).

³² Measurement of cultural difference assumes *more* or *less* of the same thing can be determined. There must be a comparable base, since the unique is not within the province of science.

Data Collection

Data on delinquency rates, socio-economic characteristics of residential areas, and the attitudes of high school students were obtained for a highly urbanized Midwestern city of 100,000. Thus, urbanism was, for practical research possibilities, a constant, prohibiting tests of predicted relationships between urbanism and intergenerational culture conflict and between urbanism and illegitimation. Moreover, direct measures of the attitudes of adults and of illegitimation of adults were beyond the scope of the research.

The delinquency data were from a 20 per cent sample of the master cards contained in the file of the police juvenile bureau. For 94 per cent of the 3,148 offenses recorded from the beginning of 1950 to the end of 1960, guilt had been ascertained by confession, by the use of a lie detector with parental permission, or by incontrovertible evidence. The remaining instances were termed "contacts,"³⁵ and were also classed as offenses, since (1) contacts are considered part of an individual's police record, (2) limited police resources often result in classification of relatively minor cases as contacts for future reference without their having been formally closed, and (3) the imprecise wording of state and local delinquency statutes means that almost any juvenile, especially one having contact with the police, could be charged with some offense, and (4) contacts are subject to the same types of dispositions as formal offenders, since they may be regarded as needing rehabilitative attention.³⁶ Delinquency rates were, then, calculated on the basis of the most nearly direct yet reliable evidence of the extent of pre-adult illegitimation in the city.

Information from the 1960 U. S. Census,³⁷ the local school census, city planning commission materials on land-use,³⁸ and a questionnaire administered to a student sample representing grades 9-12 in all high schools in the city gave presumed measures of social position. Fifteen residential areas were defined in terms of the elementary

school districts, since (1) census tracts are not delineated for the city, (2) the school census data were tabulated according to these districts, thus providing intra-city juvenile populations for which delinquency rates could be calculated, (3) the district is the most reliable unit for the demarcation of relatively homogeneous residential areas in the city, and (4) students from the same district generally attend the same high school—which suggests that the home situation may reinforce the social and cultural patterns of youth so strongly encouraged by the internal and external environments of the high schools.³⁹ Social position measures were, therefore, derived from several sources and with respect to the residential district rather than individuals or groups.

The nearest approximation to indicators of culture conflict which were feasible within the limits of the study were the responses of the 935 high school students to 45 attitude items presumably relevant to areas of special significance in regard to contacts between adults and pre-adults. The five items from Srole's *anomia* scale were included,⁴⁰ as were nine items, most in revised form, from the Purdue Opinion Panel.⁴¹ Apart from general alienation, or *anomia*, the items were designed to elicit the attitudes of high school students toward parents, education, work, police, social stratification, and self. It was necessarily assumed that for each of these areas a distinction could be made between *favorable* and *unfavorable* responses. Favorable responses were those indicating acceptance of what were taken to be adult cultural expectations concerning deference to parents, recognition of the values of education and of work, respect for legal authorities, belief in the virtual absence of limits upon opportunities for individual advancement, and self-acceptance and approval.

Classification and Selection of Variables

There were three stages in the classification and selection process, (1) the assignment of attitude items to groups for scaling, (2) the grouping of all variables into social position, culture conflict, and illegitimation categories, and (3) the selection of representative variables for correlation analysis.

³⁵ COLEMAN, *op. cit.* *supra* note 21, esp. 279-329.

⁴⁰ Srole, *Social Integration and Certain Corollaries: An Exploratory Study*, 21 AM. SOC. REV. 709, 712-13 (1956).

⁴¹ From numbers 45, 48, 49, 53, and 54. A description of the continuing Purdue Opinion Panel project and a summarization of results to 1957 is found in REMMERS & RADLER, *THE AMERICAN TEENAGER* (1957).

³⁶ All official contacts of whatever nature between police officers and juveniles have been reported in writing on an official form as a matter of policy since 1958.

³⁷ Terry, "Criteria Utilized by the Police in the Screening of Juvenile Offenders" p. 43 (unpublished thesis, University of Wisconsin, 1962).

³⁸ 3 U.S. CENSUS OF HOUSING: 1960, (City Blocks; Series HC(3), Number 418).

³⁹ CITY PLAN COMM'N, RACINE, WIS., LAND USE AND COMMUNITY FACILITIES PLAN FOR THE CITY OF RACINE AND THE RACINE AREA (1959).

Attitude responses were subjected to R-technique factor analysis, using standard computer procedures, by a trained CDC 1604 operator. Extraction of factors was limited to eight, accounting for 80 per cent of the total variance, since the limited objective was to select items constituting tests for certain predetermined attitudes. Inspection of the factor loadings showed that although there were no really pure tests of any one factor, the factors did approximate the expected content areas.⁴² For each content area scales were derived from items with loadings of at least .30 on the appropriate factor and correlating with each other item with coefficients of at least .20.⁴³ In view of the small item intercorrelations, the wisest course was to make the fewest possible assumptions regarding scalability by simply summing item scores, weighted by proportion of respondents making each choice, to arrive at a summated scale score for each residential district high school sub-sample. While there was no attempt to order items, the use of correlated items appears, as Peak has said, to be appropriate "to the selection of items of a test to be used chiefly for prediction to a specific external criterion."⁴⁴ As the items thus selected were previously selected on the basis of relatively high loadings on factors that reflected the content areas that determined the inclusion of items in the initial pool, the evidence is even stronger for the internal consistency of the final scales. In regard to items appearing in more than one scale, there is no reason to doubt that items designed to measure culture conflict might be relevant to more than one issue involved in the conflict. Moreover, there is consistency as well as

compartmentalization in human mental processes, so that the same experiences can be involved in the development of attitudes toward a variety of objects. For example, alienation among pre-adults seems to be tied in with their relations with their parents, and items having to do with attitudes toward parents and toward the police show up again in a measure of the extent to which teenagers see themselves as "delinquent." It is concluded that the scales used in the study did satisfy the limited purpose of ordering *aggregates* of pre-adults in terms of the varying degrees to which they accepted or rejected certain adult cultural expectations considered to have particular significance in intergenerational relations.⁴⁵ There were, finally, measures for a pre-adult sample from each residential district of alienation from parents, rejection of traditional ideology regarding social status, negative self-appraisal, devaluation of education, "delinquent" self-image, rejection of adult restrictions upon teenage marriage, hostility toward police, and *anomia*; in addition, total scores both including and excluding the *anomia* score were used.

Table 1 identifies the 22 variables derived from the available information for each of the 15 districts, including ten attitude scores, a land-use pattern score, four ratios using data from the housing census, five indicators of ethnicity, social status, and mobility of the student sample, and total and serious⁴⁶ delinquency rates. All factors

⁴² Obviously, individuals with quite different response patterns could attain the same total scores—which could be taken to mean that different attitudes were being elicited in different people. While this might have been true, the possibility also exists that different patterns of experience may produce equivalent reactions. "We do not know as yet that independent measures of the same unidimensional processes in different people furnish the best means to the prediction of behavior." *Id.* at 260. In any case, Warren Torgerson has argued that derivation of a Guttman scale does not necessarily mean that the universe of content is scalable. *THEORY AND METHODS OF SCALING* 333 (1958). In other words, even unidimensionality of a set of items does not automatically imply that the same thing is actually being tapped in different individuals.

⁴³ The adjective *serious* refers to the extent of deviation from the normative expectations of dominant adult culture, i.e., the seriousness of an offense is defined by the severity of the modal or potential official reaction to it, with respect to the curtailment of personal freedom through warning, arrest, probation and institutionalization—which can for most purposes be considered to approximate degrees of severity. In the present study "serious offenses" was an *a priori* category including those offenses with presumably high potential for relatively severe reactions: robbery, burglary, theft (auto and other), assault, sex offenses, forgery, weapons offenses, fraud, escape, and violent property damage. See McGaghy, "Social Areas and

⁴² Some exceptions which may prove of interest in future research were that all of the Srole *anomia* items loaded highest in the factor dominated by the attitude-toward-parents items, and that the attitude-toward-self items split, one set appearing in a factor whose item composition suggests that self-appraisal in terms of leadership and dating potential, social skills, and personal appearance and talents constitute one object, while the other set appeared dominant in a factor more analogous to the fundamental notion of self-concept. The first exception may mean that general alienation among teenagers is closely linked with their family experiences. The second suggests a distinction between self-appraisal and self-concept; in this study, the first provided scalable items by our criteria, while the second unfortunately did not. Consequently, no attempt was made to deal with the presumably "deeper" level of pre-adults' attitudes-toward-self.

⁴³ These are, of necessity, arbitrarily chosen but relatively high limiting values.

⁴⁴ Peak, *Problems of Objective Observation*, in *RESEARCH METHODS IN THE BEHAVIORAL SCIENCES* 255 (Festinger & Katz eds. 1953).

were then extracted from the product-moment intercorrelation matrix, which provided not only a check on the assumed correspondences between theoretical constructs and variables, but also a means for determining which variables were the most representative of their class and therefore the empirical indicators most pertinent to the concept associated with each class.

Table 2 indicates the resulting factors and includes those variables with loadings of at least .70. To insure the best possible tests, only those variables were used in the subsequent analysis that had loadings of at least .80. Where two or more variables are found with high loadings on the same factor, it can be assumed that these variables are measuring essentially the same thing, i.e., that they are duplications from a theoretical standpoint. For this reason only the variables with the highest loadings need be considered in further analytical work. In the case of the first factor, variables 13 (owners/renters), 16 (ethnicity), and 17 (family status) had sufficiently high loadings; but since no variable could be considered a nearly pure test for the factor and since these three variables had approximately the same loadings, all three were retained. Factor I was interpreted as the "social position" factor. Variables 1 (*anomia*), 5 (education), 9 (total including *anomia*) and 10 (total without *anomia*) were high enough on factor II, interpreted as the "culture conflict" factor; variable 9, in fact, was virtually a pure test for the factor. Since 9 and 10 are identical except for the *anomia* score, 10 was omitted from further consideration. The third, "illegitimation" factor produced variables 21 (total delinquency) and 22 (serious delinquency); variable 18 (residence less than five years) also appeared, with a loading of .86—which suggested that short-term residence might be more closely related to illegitimation than any of the other variables, and that "residential mobility" was to some extent independent of the "social position" class of variables.⁴⁷

Distribution of Juvenile Delinquency in Racine, Wisconsin, 1950-1960" p. 66 (unpublished thesis, University of Wisconsin, 1962).

⁴⁷It should be noted that the other "residential mobility" variables, numbers 19 and 20, did have loadings on factor I ("social position") almost as high as on factor III ("illegitimation"): -.57 and .57 compared with .66 and .64, respectively. Some connection between mobility and social position would certainly be expected, since much of the immigrant population of the city in recent years has been American-Mexican and Negro, who have generally entered the social structure

Therefore, variable 18 (short-term residence) was treated statistically as a representative of an analytically separate class. That variable 3 (status ideology) should appear alone in factor IV and 7 (teenage marriage) should also show up in a separate factor were unexpected, and indicated the possibility that these attitude measures were getting at something in each case distinct from the common focus of the other attitude measures. Nevertheless, as attitude scores the variables were treated as additional indicators of the degree of "culture conflict." The final result of the factor analyses was to provide the best available data reliably grouped and of demonstrated, as far as possible, relevance to the testing of theoretically significant hypotheses.

Statement and Tests of Hypotheses

As Blalock⁴⁸ has demonstrated, the analysis of correlations does not reveal the causal linkages among a number of variables and is therefore less than adequate as a method by which to evaluate the causal significance of independent variables. Nevertheless, as a *part* of an attempt to investigate the causal implications of a theory, correlation techniques offer the eminent advantages of precision and reliability of results. Since the empirical objective of this research was to determine the predictive efficiency of a particular theory, the relevant test was the ability of appropriate sets of variables to account for the variance in illegitimation, i.e., delinquency rates. The primary statistical problem was, then, to determine the multiple correlations of various combinations of the variables representing the classes of phenomena conceptualized in the theory, the highest value indicating the predictive power of the theory in this particular test. The secondary statistical problem was to estimate the contribution of each class of variables to the overall predictive power of the theory, it being useful to know not only that a theory can predict, but also how it predicts in terms of hypothesized relationships among variables. By partialling it is possible to learn, within the context of a theory, which type of information called for by the theory is of the greatest immediate predictive value. At this point it may be well to stress that prediction and scientific

in relatively disadvantaged positions. McCaghy, *supra* note 46, at 28.

⁴⁸Blalock, *Evaluating the Relative Importance of Variables*, 26 AM. SOC. REV. 866 (1961).

TABLE 1
IDENTIFICATION OF VARIABLES

Number	Description
1	Srole <i>anomia</i> scale score ^a
2	Alienation from parents score
3	Rejection of status ideology score ^a
4	Negative self-appraisal score
5	Devaluation of education score ^a
6	"Delinquent" self-image score
7	Rejection of adult restrictions upon teenage marriage score ^a
8	Hostility toward police score
9	Total including Srole score ^a
10	Total excluding Srole score
11	Land-use pattern score
12	Ratio of sound to deteriorating and dilapidated housing units
13	Ratio of owner-occupied units to renter-occupied units ^a
14	Proportion of units occupied by nonwhites
15	Proportion of units with 1.01 persons or more per room
16	Proportion of district student sub-sample classed as "other than native white" ^{a, b}
17	Modal family occupational status of district student sub-sample ^{a, c}
18	Proportion of district student sub-sample resident in Racine less than five years ^a
19	Proportion of district student sub-sample born outside Wisconsin
20	Proportion of district student sub-sample who moved to Racine from outside Wisconsin
21	District total delinquency rate: no. of offenders/population from 4 through 17 years of age $\times 1000 \times 5^a$
22	District serious offense rate: no. of serious offenses/population from 4 through 17 years of age $\times 5^a$

^a Variables subsequently used in correlation analysis.

^b Self-identification was accepted at face value. In addition, those respondents identifying themselves as "white" were included in the "other than native white" class if one or both parents were born outside the United States.

^c Both fathers' and mothers' occupations were scored in terms of the Minnesota Scale for Parental Occupations. Where both parents were employed outside the home, a family occupational status score was determined in this fashion: (1) the separate category for farmers was eliminated by random assignment of the scant half-dozen farmers to the adjacent categories; (2) assuming the father's occupation to be the better indicator of the family's social position, the scale value of his occupation was raised one if the

TABLE 2
VARIABLES SELECTED BY FACTOR ANALYSIS^a

Variables ^b	Factor Loadings					
	I	II	III	IV	V	VI
11	-.71	.16	.29	-.34	.40	.17
13	.82	.18	-.27	-.08	.27	-.16
14	-.73	.39	.38	.25	-.01	-.10
16	-.81	.41	.16	-.15	.01	.05
17	-.82	-.26	.16	-.18	-.19	-.07
1	-.02	.87	.11	-.04	.23	.13
2	.08	.72	-.02	-.51	-.16	-.27
5	-.04	.82	-.14	-.24	.24	-.07
6	-.36	.72	.01	-.21	-.24	-.40
8	-.15	.77	.14	.41	-.08	.23
9	.02	.98	-.03	.02	-.08	-.11
10	.04	.91	-.12	.05	-.26	-.25
18	-.07	-.14	.86	.11	-.29	.12
21	-.29	.09	.90	-.08	-.07	.09
22	-.29	.01	.89	-.28	.12	-.03
3	.18	-.20	-.27	.87	-.00	.02
12	.45	-.04	-.02	-.05	.76	.07
7	.14	.15	-.16	-.04	.03	-.93

^a Variables with high loadings on Factor I are listed first, those with high loadings on Factor II next, and so on.

^b See Table 1 for identification of variables.

explanation are *not* the same thing. Obviously a theory that cannot lead to prediction is useful, but just as certainly a variable that "associates" without any specific theoretical position is of little value in the development of explanatory systems as well as in scientific, as distinguished from actuarial, prediction. Unless there is a rationale for the recurrence of associations, prediction is a matter of faith and mechanics rather than of science.⁴⁹

⁴⁹ For a spirited *de-emphasis* of formal theory in favor of the less selective collection and analysis of much more and better data, see Borgatta, *Toward a Methodological Codification: The Shotgun and the Saltshaker*, 24 SOCIOMETRY 432 (1961).

mother's occupation ranked two or more categories above his and lowered one if the mother's occupation ranked two or more categories below his. The resulting score would appear to be a more realistic indicator of the social position of the family than the father's occupational score alone.

Within the limits of the study it was possible to formulate and test only hypotheses suggested by implications 1, 3, and 4. Each theoretical implication will be stated; the operational translations—hypotheses—will be indicated, and the results of the tests reported. Finally, the predictive power of the theory in this study will be summarized as the greatest amount of variance in delinquency rates which was attributable to a theoretically meaningful combination of variables.

Implication 1. *A difference in social position implies a degree of culture conflict.*

Since three variables were reliably selected as indicators of "social position" and five as indicators of "culture conflict," positive associations between any of the three and any of the five were predicted. Thus, there were 15 hypotheses relating social position to culture conflict by predicting positive linear correlations. Table 3 indicates that the data did not support the hypotheses in most instances, as 12 of the 15 gross correlations were negative. In particular, none of the three positive correlations was statistically significant, while one at least of the negative coefficients was significant at the .10 level. Controlling for the effects of the short-term residence variable did not significantly alter the relations between the two classes of "social position" and "culture conflict" variables.

TABLE 3
CULTURE CONFLICT AND SOCIAL POSITION

Culture Conflict	Social Position ^a					
	Owners/ Renters		Ethnicity		Family Occupational Status	
<i>Anomia</i>	-.15	-.15	.37	.38	-.15	-.15
Status						
ideology	-.09	-.02	-.45 ^b	-.43	-.35	-.31
Education	-.21	-.10	.31	.39	-.25	-.16
Teenage						
marriage	-.39	-.33	-.14	-.10	-.03	.06
Total score	-.18	-.13	.35	.38	-.23	-.30

^a For each variable the first column is the gross correlation, the second is the partial correlation coefficient with variable 18 (short-term residence) controlled. In all cases see Table 1 for specific identification of variables; scores are for the elementary school districts. (N = 15)

^b Significant at .10 level, $t = 1.80$; with 13 df the value of t with a probability of .90 is 1.77. None of the partial correlations were significant; with 12 df t is 1.78 with $p = .90$.

TABLE 4
CULTURE CONFLICT AND TOTAL DELINQUENCY,
CONTROLLING SOCIAL POSITION

Culture Conflict	Total Delin- quency ^a	Social Position ^b		
		Owners/ Renters	Ethnicity	Family Occupational Status
<i>Anomia</i> . . . . .	.21	.34	.04	.30
Status ideology	-.40	-.42	-.23	-.30
Education	-.05	.07	-.24	.06
Teenage marriage	-.25	-.06	-.21	-.26
Total score . . . . .	.06	.18	-.13	.17

^a Gross correlations, none significant at the .10 level.

^b Partial correlations with the indicated social position variables controlled, none significant at the .10 level. See Table 1 for specific identification of variables.

As in all efforts to test theoretical implications, the problem was whether to reject the theory or to question the methodology, or to consider both possibilities. Though the implication remains entirely open to question—especially to the findings of verification research—the decision was to let the theory stand for the present. There were three reasons for such a decision; emotional commitment to the theory was definitely not one of them. (1) The factor loadings of the three "social position" variables indicated that none of them approximated a pure test for the factor. The loadings for 13 (owner/renters), 16 (ethnicity), and 17 (family status) were, respectively, .82, -.81, and -.82 on factor I. The possibility exists that the "best available" measures of social position were not good enough for a conclusive test. (2) The presumed social position data were with reference to the larger social structure. Before such data can be used decisively to reject the theory it should be demonstrated that they are directly relevant to the location of *pre-adults*, as well as adults, in the social structure. That is, to what extent can the same criteria be used to distinguish the social positions of pre-adults and of adults? The argument in this paper has been that the same criteria do *not* necessarily apply; the research problem, accordingly, may be to find indicators of more direct relevance in the social positioning of pre-adults *as pre-adults*, rather than to continue with the working assumption that pre-adult social position is merely a function of adult social

TABLE 5
CULTURE CONFLICT AND SERIOUS DELINQUENCY
CONTROLLING SOCIAL POSITION

Culture Conflict	Serious Delinquency ^a	Social Position ^b		
		Owners/Renters	Ethnicity	Family Occupational Status
<i>Anomia</i>.....	.17	.28	.03	.25
Status ideology.....	-.51 ^d	-.53 ^c	-.41	-.44
Education.....	.01	.13	-.13	.12
Teenage marriage.....	-.15	.04	-.10	-.15
Total score.....	-.02	.07	-.18	.08

^a Gross correlations.

^b Partial correlations with the indicated social disadvantage variables controlled. See Table 1 for specific identification of variables.

^c Significant at .05 level. With 12 df and $p = .95$, $t = 2.18$; the value of t for $r_{12,3} = -.53$ is 2.21.

^d Significant at .10 level. With 13 df and $p = .90$, $t = 1.77$; for $p = .95$, $t = 2.16$. For $r = -.51$, $t = 2.13$.

position. (3) The measurement of attitudes as indicators of culture conflict was limited in the study to the use of summated scores for aggregates of pre-adults determined solely by common residence in a given elementary school district. More refined attitude measures with respect to groups of high schoolers identified sociometrically would clearly provide more valid indicators for the analysis of culture conflict. There is, of course, no guarantee that results would be different if methodological improvements were effected. In essence, the theory is to be given more of a "fair chance."

Implication 3. To the extent that culture conflict between pre-adults and adults is expressed in social conflict and that the adults are dominant in the larger social structure, illegitimation of the pre-adults will result.

On the assumption that culture conflict was expressed in social conflict, positive associations between "culture conflict" variables and delinquency rates were predicted. With five attitude scores as measures of "culture conflict" and two delinquency rates as indicators of "illegitimation," there were ten hypotheses on the basis of gross correlations. When the effects of each of the three "social position" variables were controlled, another 30 hypotheses were tested. Table 4 reports the results in regard to the total delinquency rates, and Table 5 the results for the serious delinquency rates. For total

delinquency rates, neither the gross nor the partial coefficients were statistically significant at the .10 level, although positive sign changes were effected in the relation between delinquency rate and variable 5 (devaluation of education) when variables 13 (owners/renters) and 17 (modal family occupational status) were controlled. Controlling variable 16 (ethnicity) changed the sign from positive to negative for the relation between delinquency and variable 9 (total attitude score). Since the best tests for the "culture conflict" factor—variables 1 (*anomia*), 5 (education), and 9 (total score)⁵⁰—did in general show a positive association with total delinquency when the "social position" variables were controlled, the implication was not rejected at this point. For serious delinquency rates, controlling variable 16 (ethnicity) reinforced the generally negative, though low, correlations with the "culture conflict" variables. However, the fact that seven of the nine partial correlations between serious delinquency and the best "culture conflict" variables were positive—though not significant at the .10 level—again raised the possibility that improved measurement *might* produce stronger support for the proposition and would, in any event, provide more conclusive evidence. Consequently, the implication was not rejected on the basis of present evidence.

Implication 4. To the extent that culture conflict is expressed in social conflict, illegitimation of pre-adults will be positively associated with the difference between the social positions of pre-adults and of adults dominant in the larger social structure.

Positive associations between the "social position" variables and delinquency rates were predicted. Three "social position" variables, 13 (owners/renters), 16 (ethnicity), and 17 (family status), in relation to two delinquency rates constituted six hypotheses, plus an additional 30 when the effects of each of the five "culture conflict" variables were controlled. For total delinquency, Table 6 reveals uniformly positive and fairly high coefficients, particularly in the case of the owners/renters ratio. For serious delinquency, Table 7 shows that every coefficient was positive, though only the owners/renters ratio was significantly related. Subject to more and better research evidence, the implication was accepted.

The relatively independent status of variable 18 (short-term residence) presented additional ana-

⁵⁰ With factor II loadings of, respectively, .87, .82, and .98.

TABLE 6
SOCIAL POSITION AND TOTAL DELINQUENCY, CONTROLLING CULTURE CONFLICT

Social Position	Total Delinquency ^a	Culture Conflict ^b				
		<i>Anomia</i>	Status Ideology	Education	Teenage Marriage	Total Score
Owners/Renters.....	.52 ^d	.57 ^c	.53 ^c	.52 ^d	.47 ^d	.54 ^c
Ethnicity.....	.48 ^d	.44	.37	.52 ^d	.46	.49 ^d
Family Occupational Status.....	.41	.46	.31	.41	.41	.44

^a Gross correlations.

^b Partial correlations with the indicated culture conflict variables controlled. See Table 1 for specific identification of variables.

^c Significant at .05 level. With 12 df and $p = .95$, $t = 2.18$; the value of t for $r_{12.3} = .53$ is 2.21.

^d Significant at .10 level. With 12 df and $p = .90$, $t = 1.78$; the values of t for $r_{12.3} = .52$ and for $r_{12.3} = .46$ are, respectively, 2.08 and 1.77. With 13 df and $p = .90$, $t = 1.77$; the values of t for $r = .52$ and $r = .41$ are, respectively, 2.17 and 1.64. For $r = .48$, t is 2.00.

TABLE 7
SOCIAL POSITION AND SERIOUS DELINQUENCY, CONTROLLING CULTURE CONFLICT

Social Position	Serious Delinquency ^a	Culture Conflict ^b				
		<i>Anomia</i>	Status Ideology	Education	Teenage Marriage	Total Score
Owners/Renters.....	.47 ^c	.51 ^c	.49 ^c	.48 ^c	.45	.48 ^c
Ethnicity.....	.39	.36	.21	.41	.38	.42
Family Occupational Status.....	.38	.41	.25	.39	.38	.39

^a Gross correlations.

^b Partial correlations with the indicated culture conflict variables controlled. See Table 1 for specific identification of variables.

^c Significant at .10 level. With 13 df and $p = .90$, $t = 1.77$; for 12 df, $t = 1.78$. For $p = .95$, these values are, respectively, 2.16 and 2.18. For $r = .47$, $t = 1.96$; since t for $r = .41$ is 1.64 (footnote d, Table 6), $r = .39$ is not significant. For $r_{12.3} = .51$, $t = 2.04$; since t for $r_{12.3} = .46$ is 1.77 (footnote d, Table 6), $r_{12.3} = .45$ is not significant.

TABLE 8
SHORT-TERM RESIDENCE AND TOTAL DELINQUENCY, CONTROLLING SOCIAL POSITION AND CULTURE CONFLICT^a

Social Position ^b			Culture Conflict ^b				
Owners/Renters	Ethnicity	Family Occupational Status	<i>Anomia</i>	Status Ideology	Education	Teenage Marriage	Total Score
.78	.83	.77	.82	.80	.83	.78	.82

^a Partial correlations with the indicated variables controlled, all significant at the .01 level. With 12 df and $p = .99$, $t = 3.06$. Since t for $r_{12.3} = .69$ is 3.29 (footnote c, Table 9), all values are significant. The gross correlation coefficient is .80, $t = 4.71$, with $p = .99$.

^b See Table 4 for specific identification of variables.

TABLE 9
SHORT-TERM RESIDENCE AND SERIOUS DELINQUENCY, CONTROLLING SOCIAL POSITION AND CULTURE CONFLICT^a

Social Position ^b			Culture Conflict ^b				
Owners/ Renters	Ethnicity	Family Occupational Status	Anomia	Status Ideology	Education	Teenage Marriage	Total Score
.64 ^d	.69 ^d	.65 ^d	.70 ^c	.70 ^c	.74 ^c	.69 ^c	.69 ^c

^a Partial correlations with the indicated variables controlled.

^b See Table 4 for specific identification of variables.

^c Significant at .01 level. For $r_{12.3} = .69$, $t = 3.29$.

^d With 12 df and $p = .95$, $t = 2.18$. The t values for $r_{12.3} = .65$ and $= .64$ are, respectively, 2.95 and 2.88; these coefficients are then significant at the .05 level.

TABLE 10
SHORT-TERM RESIDENCE AND TOTAL DELINQUENCY, CONTROLLING BOTH SOCIAL POSITION AND CULTURE CONFLICT^a

Social Position ^b	Culture Conflict ^b				
	Ano- mia	Status Ide- ology	Edu- ca- tion	Teenage Mar- riage	Total Score
Owners/Renters . . .	.82	.79	.83	.78	.82
Ethnicity . . . . .	.83	.83	.82	.82	.83
Family Occu- pational Status . .	.80	.79	.82	.75	.79

TABLE 11
SHORT-TERM RESIDENCE AND SERIOUS DELINQUENCY, CONTROLLING BOTH SOCIAL POSITION AND CULTURE CONFLICT^a

Social Position ^b	Culture Conflict ^b				
	Ano- mia	Status Ide- ology	Edu- ca- tion	Teenage Mar- riage	Total Score
Owners/Renters . . .	.66 ^d	.65 ^d	.71 ^c	.65 ^d	.65 ^d
Ethnicity . . . . .	.69 ^c	.70 ^c	.70 ^c	.69 ^c	.68 ^d
Family Occu- pational Status . .	.68 ^d	.68 ^d	.72 ^c	.64 ^d	.66 ^d

^a Second-order partial correlations, with the indicated pairs of variables controlled, all significant at the .01 level. With 11 df and $p = .99$, $t = 3.11$. For $r_{12.34} = .75$, $t = 3.75$.

^b See Table 1 for specific identification of variables.

^a Second-order partial correlations with the indicated pairs of variables controlled.

^b See Table 1 for specific identification of variables.

^c Significant at .01 level. For $r_{12.34} = .69$, $t = 3.14$.

^d Significant at .05 level. With 11 df and $p = .95$, $t = 2.20$. The t values for $r_{12.34} = .68$ and $= .64$ are, respectively, 3.09 and 2.78.

lytical problems. Sixty-four per cent of the variance in total delinquency rates was accounted for by this variable, a proportion which was not significantly affected by controlling for the effects of each of the other independent variables, as shown in Table 8. In every case the relation was highly significant. Short-term residence was also significantly correlated with serious delinquency, accounting for about 48 per cent of the variance. Table 9 indicates that partialling the other independent variables did not significantly alter the relation. Tables 10 and 11 show that the second-order partials were significant when both the "social position" and the "culture conflict" variables were controlled. The statistical importance of short-term residence having been established, the

correlations between this variable and the total delinquency and serious delinquency rates were used in the computation of multiple correlation coefficients.

Table 12 shows that the variables used in the study were more successful in accounting for variation in total delinquency rates than for variation in rates of serious delinquency. For total delinquency, the most successful combination of variables included 18 (short-term residence), 13 (owners/renters), and 1 (anomia), to which 79 per cent of the variance was attributable. For serious delinquency, about 68 per cent of the variance was accounted for by a combination of 18 (short-term

TABLE 12
ACCOUNTED-FOR SQUARED VARIABILITY: TOTAL DELINQUENCY AND SERIOUS DELINQUENCY^a

	Short-term Residence														
	Anomia			Status Ideology			Education			Teenage Marriage			Total Score		
	Owners/ Renters	Ethnicity	Family Status	O/r	E	Fs	O/r	E	Fs	O/r	E	Fs	O/r	E	Fs
Total Delinquency R ² .....	.789	.760	.729	.773	.775	.715	.774	.762	.728	.714	.758	.659	.769	.764	.698
Serious Delinquency R ² .....	.595	.557	.567	.675	.639	.627	.618	.576	.592	.550	.562	.506	.556	.557	.522

^a Combinations of variables as indicated. All coefficients with a value of .639 or better are significant at or beyond the .01 level. All others are significant at the .05 level. In this case, with $p = .99$ and $p = .95$, the values of F are 6.22 and 3.59, respectively. For $R^2 = .639$ and $= .627$, $F = 6.45$ and 6.15. For $R^2 = .506$, $F = 3.76$.

residence), 13 (owners/renters), and 3 (rejection of status ideology).

Conclusion

The results of the verification study must obviously be regarded as at most encouraging rather than as definitive one way or the other. From the theorist's viewpoint, a theory with a predictive power of almost 80 per cent is not lightly to be dismissed; from the methodologist's viewpoint, formal theory may appear speculative and pretentious, with the benefit of the doubt to be given the data in terms of which hypotheses were formulated and tested. As has been made apparent, the writer's position is that criminology has now advanced to the point where the systematic construction and verification of axiomatic theories should become increasingly characteristic of the field. Deficiencies in theory can best be remedied by a continuing effort to pinpoint the logical and empirical inadequacies of the theory. This can be done by the improved research designs which greater resources allow, but not by dogged exaggeration of the empirical aspects of research at the expense of the theoretical aspects. Theory *construction* represents the often tedious, unspectacular task of spelling out the linkages among the ideas that flow from theorizing, with full awareness of the problems involved in the execution of relevant verification studies.

SUMMARY

Criminology has advanced to the point where it appears that the systematic construction of axiomatic theories and the design of verification studies

need emphasis for the further development of the field as a scientific discipline. The wealth of empirical and theoretical materials with reference to the sociology of delinquency indicates that this is an especially promising area in which to begin. Accordingly, a working "macro" theory of delinquency viewed as a socio-legal phenomenon has been offered, largely as a stimulus to more and better systematic theory development. The two main features of the theory are (1) a definition of delinquency as "illegitimation" of pre-adults without any assumptions regarding the actual behavior of individuals who become classed as delinquents and (2) the attempt to develop the idea of intergenerational conflict as a systematic explanation of pre-adult illegitimation. After noting the alternative empirical assumptions under which research might proceed, an initial verification study was reported in which it was assumed that there was a direct correspondence between culture conflict and social conflict. The results of the study were inconclusive. The primary value of the report has been to illustrate the considerations entering into a verification study, particularly (1) the need to establish the reliability and validity of variables in relation to theoretical constructs, and (2) the fact, sometimes neglected in practice, that "failures" in verification studies may be attributable to methodological deficiencies as much as, or even more than, theoretical short-comings. The essential point is not the rise or fall of the delinquency theory dealt with in this paper, but the transformation of more theorizing into theories and the design of more research relevant to the testing of theories.