BEHAVIORAL JURISPRUDENCE

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FOR OVER TWO THOUSAND YEARS, the science of law has been a dull esoteric subject, with traditional logic its long suit and the syllogism its ace in the hole.[1] The erudite tended to empathize with Socrates, who could define justice only in metaphysical terms, and to scorn the occasional iconoclasts in the Thrasymachian tradition, who would have operationalized the concept of justice on the basis of political interrelationships of power and influence. Throughout these two millennia, jurisprudence was a "science" only in the sense of "moral science," that is to say, it was a branch of philosophy. It was concerned with prescriptive norms rather than with descriptions of human action, and therefore it dealt almost exclusively with ideals for, rather than with the realities of, the behavior of judges, lawyers, jurors, and litigants.

The emergence of social science during the nineteenth century was both the precursor and the cause of significant changes in the "scientific" component of legal science. Particularly under the influence of the historical approach then dominating legal study on the Continent, and the indigenous American pragmatic philosophy developed by Charles S. Peirce and William James, a new approach—now termed legal realism—arose in the latter part of the century. The pioneers of the realist approach included the Boston lawyer-scholar Oliver Wendell Holmes, Jr., and political scientist Frank Goodnow at Columbia. At its height during

AUTHOR'S NOTE: *The author thanks the Institute for Research in Social Science of the University of North Carolina at Chapel Hill, and the Social Science Research Institute of the University of Hawaii, for typing of various drafts of this article.*

1. R. Pound, *Jurisprudence*, 8 ENCYC. SOC. SCI. 477-92 (1935); and 1 R. POUND, JURISPRUDENCE 27-68 (1959).

the 'twenties and early 'thirties the realist movement included primarily law professors, along with a few lawyers, political scientists, and historians; associated with the movement are such names as Karl Llewellyn, Jerome Frank, Underhill Moore, Robert Maynard Hutchins, Charles Grove Haines, and Felix S. Cohen.

The realist movement in American jurisprudence, like the social science of its day, was highly pragmatic and empirical in its orientation, but not overly burdened or concerned with the development of systematic theory.[2] More recently, as one of the fruits of the shift in emphasis (and in scope) that is involved in the difference between social and behavioral science, a really new approach to jurisprudence has evolved.[3] In political science, where much of the new work has been done, it has tended to be identified as the study of judicial behavior[4] or as "political jurisprudence," [5] while lawyers with analogous interests have tended to use the rubric "jurimetrics" [6] to describe their work. Among both lawyers and political scientists, there have been some whose primary interest lies in the endeavor to work toward a cumulative and systematic body of theoretical knowledge, based upon and guiding further inquiry through empirical studies.[7] Others, in the tradition of legal realism, have been more concerned with an attempt to provide case studies which offer a realistic political description of facets of the decision-making of courts and lawyers.[8] Still others have been particularly interested in collecting data which would lend themselves readily to quantification and to research designs amenable to computer processing and analysis.[9] All have agreed, however, that the proper subject

2. For a more sanguine appraisal of the methodological sophistication of the realists, see W. Rumble, Jr., *Rule-Skepticism and the Role of the Judge: A Study of American Legal Realism*, 15 J. PUB. L. 251-85 (1966).

3. R. HANDY & P. KURTZ, A CURRENT APPRAISAL OF THE BEHAVIORAL SCIENCES, ch. 6: *Jurisprudence*, 69-76 (1964).

4. G. Schubert, *Behavioral Research in Public Law*, 57 AM. POL. SCI. REV. 433-45 (1963), and *Judicial Behavior*, 8 INT. ENCYC. SOC. SCI. 307-15 (1968).

5. M. Shapiro, *Political Jurisprudence*, 52 KY. L. J. 294-345 (1964).

6. L. Loevinger, *Jurimetrics, The Next Step Forward*, 33 MINN. L. REV. 455-93 (1949); *Jurimetrics: Science and Prediction in the Field of Law*, 46 MINN. L. REV. 255-75 (1961); and *Jurimetrics: The Methodology of Legal Inquiry*, 28 LAW & CONTEMP. PROB. 5-35 (1963).

7. D. DANELSKI, A SUPREME COURT JUSTICE IS APPOINTED (1964).

8. THE THIRD BRANCH OF GOVERNMENT: 8 CASES IN CONSTITUTIONAL POLITICS (C. H. Pritchett & A. Westin eds., 1963); and W. MURPHY, WIRETAPPING ON TRIAL: A CASE STUDY IN THE JUDICIAL PROCESS (1965).

9. R. C. Lawlor, *What Computers Can Do: Analysis and Prediction of Judicial Decisions*, 49 A.B.A.J. 337-44 (1963).

of study is not "law" in the classical sense of verbal statements purporting to rationalize the content of constitutional and statutory documents, or appellate court opinions.[10] Inquiry has instead focused on what human beings, cast in socially defined roles in certain characteristic types of decision-making sequences which traditionally have been identified as "legal," do in their interactions and transactions with each other.[11]

The new human (*i.e.*, behavioral) jurisprudence has had an important influence in redirecting research, publication, and teaching in political science. It has, however, had much less effect thus far upon work in the law schools;[12] and candor compels the admission that the older mechanical jurisprudence[13] remains the overwhelmingly dominant metaphor among judges themselves, practicing lawyers, journalists, and the public. Among the many dimensions useful in distinguishing between the approaches, four are of particular importance: their respective standpoints toward theory, toward data, toward the object of inquiry, and toward the importance of culture.[14]

The new approach seeks to relate what we think we know, and what we can learn, about how persons behave in adjudicatory roles and institutional relationships, to a general body of theory about human decision-making behavior.[15] The traditional approach emphasizes, quite to the contrary, what are considered to be the unique and indeed the idiosyncratic aspects that are said to characterize "law," "courts," and the decisions of judges; and the objective therefore is to build a segregated theory of adjudication which will distinguish judicial from other forms of human behavior.[16]

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10. J. STONE, LEGAL SYSTEM AND LAWYERS' REASONINGS 209-12, 235-354 (1964).

11. W. MURPHY, ELEMENTS OF JUDICIAL STRATEGY (1964); H. EULAU & J. D. SPRAGUE, LAWYERS IN POLITICS (1964).

12. R. S. Brown, Jr., *Legal Research: The Resource Base and Traditional Approaches*, 7 AM. BEH. SCI. 3-6 (Dec. 1963); A. S. Miller, *The Impact of Public Law on Legal Education*, 12 J. LEGAL ED. 483 (1960); G. Schubert, *The Future of Public Law*, 34 GEO. WASH. L. REV. 593-614 (1966); and L. Loevinger, *Law and Science as Rival Systems*, 19 U. FLA. L. REV. 530-51 (1966-1967).

13. C. G. Haines, *General Observations on the Effects of Personal, Political, and Economic Influences in the Decisions of Judges*, 17 ILL. L. REV. 96-116 (1922).

14. I recognize, of course, that other dimensions, such as those representing methodology and quantification, might also be deemed of equal significance as differentiating characteristics. *See* G. Schubert, *Academic Ideology and the Study of Adjudication*, 61 AMER. POL. SCI. REV. 120 (1967).

15. J. G. March, *Sociological Jurisprudence Revisited, A Review (More or Less) of Max Gluckman*, 8 STAN. L. REV. 531-34 (1956).

16. T. Becker, *Inquiry Into a School of Thought in the Judicial Behavior Movement*, 7 MIDW. J. POL. SCI. 254-55, 262-64 (1963).

The new approach defines its data on the basis of observations of what kinds of factors influence adjudicatory decisions, what kinds of values are preferred in such decisions, and how the decisions affect the behavior of other people.[17] The old approach defines as its data the verbal statements of opinions that are written to justify the decisions of appellate court majorities, and seeks to discover the effect of such opinions upon a metaphysical essence which is called "the law."[18]

The new approach focuses upon humans who act in adjudicatory roles, and is interested in understanding judges as people—or, better put, people as judges.[19] The old approach studies institutions which it calls courts, and what courts do purports to be the objective of investigation.[20]

The new approach is very much concerned with understanding the effect that cultural—and subcultural—differences have upon adjudicatory behavior.[21] The old approach recognizes that cultural variation results in institutional differences among courts, but it is not concerned with cross-cultural analysis as the basis for identifying both the communalities and the differences that can be observed to obtain among courts in differing cultures.[22]

The traditional approach has undoubtedly contributed many important insights into the nature of judicial institutions, and the relationships of these institutions among themselves and with other sets of institutions in the American polity. But the theories of judicial decision-making that have been associated with this approach have not led to any new understanding, or even generated any new hypotheses, for a very long time. The highly formal, abstruse images suggested by the traditional approach are descriptive of a static universe of political organs in which human beings appear to play a relatively insignificant

17. D. Danelski, *Values as Variables in Judicial Decision-Making: Notes Toward a Theory*, 19 VAND. L. REV. 721-40 (1966).

18. R. A. WASSERSTROM, THE JUDICIAL DECISION (1961).

19. G. SCHUBERT, DISPASSIONATE JUSTICE: A SYNTHESIS OF THE JUDICIAL OPINIONS OF ROBERT H. JACKSON (1969, forthcoming).

20. *See, e.g.*, P. Kurland, *Foreword: Equal in Origin and Equal in Title to the Legislative and Executive Branches of the Government*, 78 HARV. L. REV. 143-76 (1964); *The Court of the Union or Julius Caesar Revisited*, 39 NOTRE DAME LAW. 636-43 (1964), and the various annual volumes of the SUP. CT. REV. which Kurland has edited, beginning in 1960. *Cf.* D. Kommers, *Professor Kurland, The Supreme Court, and Political Science*, 15 J. PUB. L. 230-50 (1966).

21. G. Schubert, *Judges and Political Leadership*, in POLITICAL LEADERSHIP IN INDUSTRIALIZED SOCIETIES 220-65 (L. Edinger ed. 1967).

22. *E.g.*, H. ABRAHAM, THE JUDICIAL PROCESS chs. 2 & 6 (1968).

part.[23] Nevertheless, the traditional theoretical structures continue to provide the basis for almost all teaching about courts and law, in courses taught by both political scientists and other academic specialists.

In the discussion that follows, I should like to present, in rudimentary form, the outline of a behavioral model of adjudicatory decision-making. It will then be possible to specify the kinds of data that we would need in order to be able to discuss the questions which the model suggests as important. This will permit us to appraise the major trends in contemporary research and probable future developments in relation to what we shall need to do if we are to construct an empirically based theory of adjudication, which articulates with the findings and theories of the rest of behavioral science.[24]

A BEHAVIORAL VIEW OF THE JUDICIAL SYSTEM

Figure 1 depicts in an elementary way the kinds of structures, functions, and interrelationships that from a behavioral standpoint are important to the understanding of the judicial system, and indeed, to any other kind of political system. The concepts which denote the important variables are sufficiently general so that the figure bears no particular relation to judges and courts. It should therefore be at least equally relevant to the analysis of other political roles. Indeed, if it were not so, then we ought to question whether it is sufficiently general to be of much help in constructing the kind of theory I have postulated as desirable. As Cardozo pointed out almost fifty years ago and as Jerome Frank insisted,[25] judges really *are* human, and inescapably subject to all

23. For discussion of the implications of premising analyses upon mechanical, biological, and configurational jurisprudential models, *see* M. Landau, *On the Use of Metaphor in Political Analysis*, 28 SOC. RES. 331-53 (1961), and *Due Process of Inquiry*, 9 AM. BEH. SCI. 4-10 (Oct. 1965); G. Schubert, *The Rhetoric of Constitutional Change*, 16 J. PUB. L. 16-50 (1967).

24. B. BERELSON & G. STEINER, HUMAN BEHAVIOR: AN INVENTORY OF SCIENTIFIC FINDINGS (1964).

25. B. N. CARDOZO, THE NATURE OF THE JUDICIAL PROCESS 167-68 (1921):

> I have spoken of the forces of which judges avowedly avail to shape the form and content of their judgments. Even these forces are seldom fully in consciousness. They lie so near the surface, however, that their existence and influence are not likely to be disclaimed. But . . . deep below consciousness are other forces, the likes and the dislikes, the predilections and the prejudices, the complex of instincts and emotions and habits and convictions, which make the man, whether he be litigant or judge. . . . There has been a certain lack of candor in much of the

the ills (as well as the satisfactions) to which flesh is heir. It must therefore be assumed that for judges and others active in the adjudicatory process, as well as for people in general, each human biological subsystem establishes parameters within which personality may function, and which affects how it will function within those bounds.[26] Three major psychological functions of a personality subsystem are perception, cognition, and choice-making.

Relationships among other persons with whom an individual comes into contact constitute the social system. Without intending to adopt his complete schema, I shall borrow from Gabriel Almond[27] certain concepts which I shall designate as input functions: interaction and communication, and interest articulation and aggregation. These are represented by the residual social space "C." The cultural system represents widely accepted patternings of beliefs and social values, such as myths, customs, and law. The content of this system is ideational rather than any directly observable activity.

The sociopsychological segment (2), which represents the overlap between the personality system and the social system, is concerned with the individual's socialization and recruitment, and with his attributes and attitudes; the psychocultural segment (3), where the personality and cultural systems overlap, represents the individual's conception of his role(s), and the ideologies which he accepts. The sociocultural segment (4) of overlap betwen the social and cultural systems represents the patterning of institutional roles, and the output functions of accommodation and regulation of the behavior of others.

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discussion of the theme, or rather perhaps in the refusal to discuss it, as if judges must lose respect and confidence by the reminder that they are subject to human limitations. I do not doubt the grandeur of the conception which lifts them into the realm of pure reason, above and beyond the sweep of perturbing and deflecting forces. None the less, if there is anything of reality in my analysis of the judicial process, they do not stand aloof on these chill and distant heights; and we shall not help the cause of truth by acting and speaking as if they do. The great tides and currents which engulf the rest of men do not turn aside in their course and pass the judges by.

Cf. also J. Frank, *Are Judges Human?* 80 U. PA. L. REV. 17-53, 233-67 (1931); J. FRANK, LAW AND THE MODERN MIND (1930).

26. *Cf.* S. Ulmer, *The Discriminant Function and a Theoretical Context for Its Use in Estimating the Votes of Judges*, 5-9 (paper presented at the Shambaugh Conference on Judicial Research, University of Iowa, October 1967); to be published in THE FRONTIERS OF JUDICIAL RESEARCH (J. Tanenhaus & J. Grossman eds. 1968, forthcoming).

27. G. ALMOND & J. COLEMAN, THE POLITICS OF THE DEVELOPING AREAS 17 (1960); and G. ALMOND & G. B. POWELL, JR., COMPARATIVE POLITICS: A DEVELOPMENTAL APPROACH chs. 4, 5, & 7 (1966).

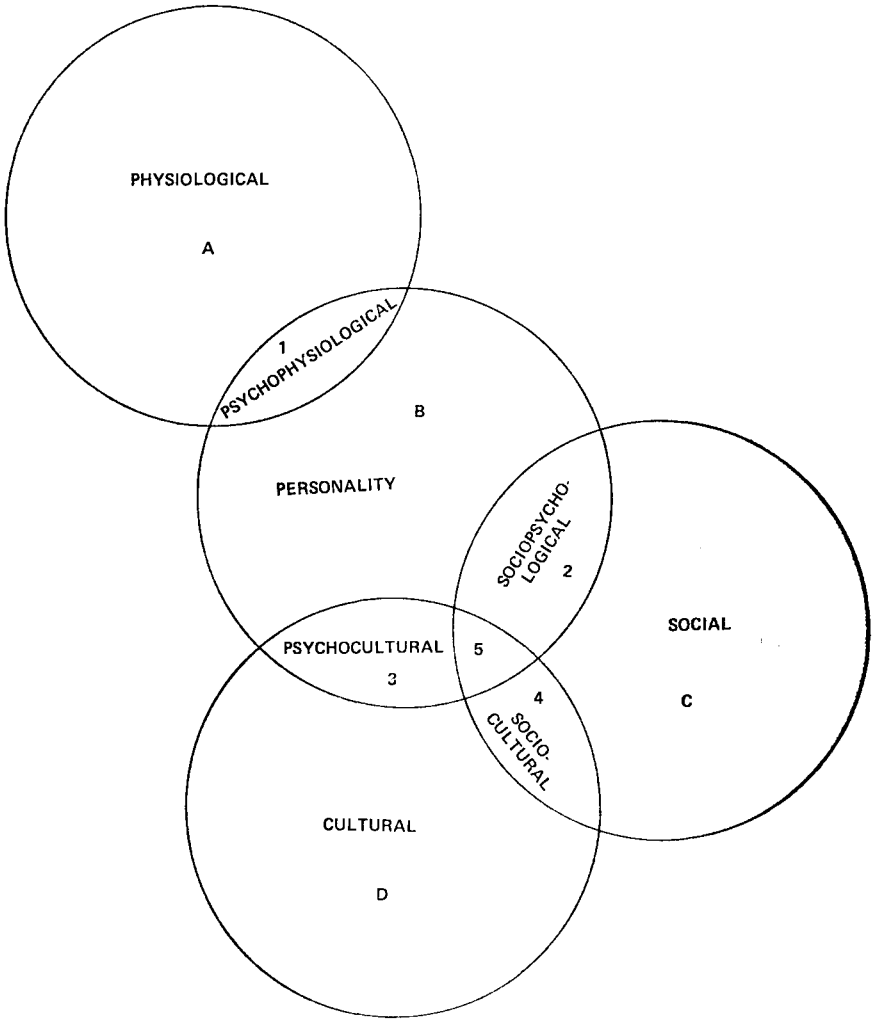


Figure 1. A BEHAVIORAL VIEW OF THE SUBSYSTEMS OF ANY POLITICAL (INCLUDING ANY JUDICIAL) SYSTEM

An individual's physiological system will affect his political relationships with other persons and their ideas only indirectly, through the functioning of his personality. Therefore, only the three subsystems, personality, social, and cultural, share a space of mutual intersection (which is also, necessarily, the area of mutual intersection among the

https://doi.org/10.2307/3052896 Published online by Cambridge University Press

three joint segments of sociopsychological, psychocultural and sociocultural functions). This central space, segment 5, represents the individual's decision-making, *i.e.*, his choices among political alternatives.

One can infer from Figure 1 that when any individual is cast in a political role, his choices among alternative possibilities for action will depend upon complex (and doubtless shifting, through time) interdependencies among several different sets of variables. In order to understand, and perhaps ultimately to be able to predict with some accuracy, how any individual acts or is likely to act in such a role, it is necessary that we observe and examine data which bear upon operations involving each of the relevant variables. It should be emphasized, however, that each of the concepts denoted in the figure (*e.g.*, "attributes" and "institutional roles") is itself a complex configuration of subvariables. Anyone who has ever attempted to do either field or experimental research involving an attempt to measure the effect of any *one* of these subvariables upon behavior is well aware of the magnitude, complexity, and long-range implications of the research task that Figure 1 implies.[28] The designated segments and residual spaces correspond to areas of our fragmentary knowledge and substantial ignorance.

The process of decision-making may be understood as taking place within the context of certain input structures (components of the personality system usually associated with an ego), input functions (certain facets and effects of interactions with others), and conversion functions (psychological processes of the ego). Table I suggests that an individual's socialization and recruitment into his political role will provide the basis for the articulation and aggregation of his interests, which in turn will set limits for his interaction and communication with others. The counterpart input structures, to these functions, are the individual's attributes (or his "social background characteristics"), his ideologies, and his attitudes; the table indicates that his attitudes are influenced by his ideologies, which in turn are influenced by his attributes. The individual's perception, cognition, and choice-making are psychological conversion functions. His perceptions are the basis for his cognitions, which he then integrates, in relation to his attitudes, in making choices among

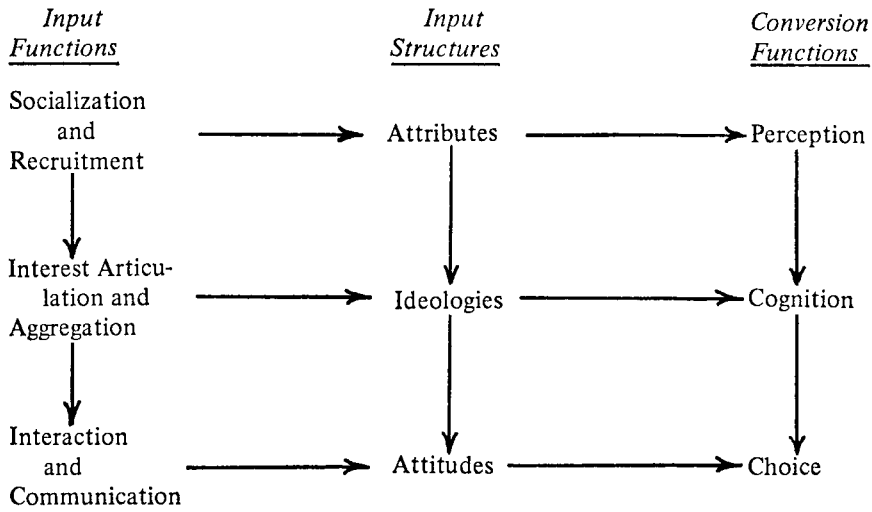
28. As Cardozo pointed out in his introductory apologia to what remains a brilliant qualitative analysis of the subject, "We must apply to the study of judge-made law that method of quantitative analysis which Mr. [Graham] Wallas has applied with such fine results [in his HUMAN NATURE IN POLITICS] to the study of politics. A richer scholarship than mine is requisite to do the work aright [, however]." THE NATURE OF THE JUDICIAL PROCESS 13 (1921).

decisional alternatives. Perceptions are also influenced by his attributes, which in turn are affected by his socialization experiences. Similarly, an individual's "social expression" of his interests (interest articulation and aggregation) affects his ideologies, and what he "knows"—his cognitions —depends upon what he believes as well as upon what he perceives. There is an equivalent lateral linkage between interaction and communication, attitudes, and choice-making; likewise his attitudes are affected jointly by his social interactions with other people, and by his beliefs.

In Table I the relationships of interdependence among the variables become increasingly complex as we trace paths from the upper left to the lower right corner of the table. It should be noted, also, that in terms of the conceptualization that lawyers traditionally have utilized to discuss decision-making, the column of "conversion functions" delineates the route by means of which "facts" enter into human choice-making; while the bottom row traces the path by which "values" are admitted. In the older terminology also, decision-making is an integration of facts and values; but the significant differences are that Table I implies that both facts and values are defined in terms of analytical con-

TABLE I

THE PROCESSING OF INPUTS OF CHOICE



cepts that can be (and have been) operationalized,[29] so that empirical study of how and why and when "facts" integrate with "values" becomes possible.[30] We do not (and need not) speak of *legal* facts and *legal* values, thereby letting the adjective suggest a mystique which is beyond analysis—at least, by non-experts (*i.e.*, by non-lawyers), and which both explains and justifies the necessity for leaving the actual processes of choice-making unexamined, except at the formal level of what institutions (rather than humans) do.[31]

Table II presents three alternative modes of conceptualizing some of the more important outputs of individual choice-making, from the vary-

TABLE II

SOME BEHAVIORAL PARAMETERS OF OUTPUTS

Standpoint	*Role Concepts*	*Output Functions*	*Output Structures*	*Feedback Concepts*
Psychological	Individual	Decision-making	Votes and opinions	Commitment
Sociological	Group	Accommodation and regulation	Decisions	Reinforcement
Cultural	Institutional	Policy-making	Policies	Norms

ing points of view of focus upon the individual, upon groups of individuals, and upon institutions. From the point of view of psychology, the individual makes decisions, which are in the structural form of his votes and opinions, and which entail for him the feedback effect of *commitment*. From a sociological point of view, a group undertakes to accommodate and to regulate conflicting interests by making decisions, the feedback effect of which, for the group, is *reinforcement*. From the cultural point of view, institutions sponsor policies which provide feedback, for persons living in a particular culture, in the form of *norms*.

29. F. Kort, *Quantitative Analysis of Fact-Patterns in Cases and Their Impact on Judicial Decisions*, 79 HARV. L. REV. 1595-1603 (1966); D. Danelski, *Values as Variables in Judicial Decision-Making: Notes Toward a Theory*, 19 VAND. L. REV. 721-40 (1966).

30. J. Tanenhaus, M. Schick, M. Muraskin, & D. Rosen, *The Supreme Court's Certiorari Jurisdiction: Cue Theory*, in JUDICIAL DECISION-MAKING (G. Schubert ed. 1963); G. Schubert, *Policy Without Law: An Extension of the Certiorari Game*, 14 STAN. L. REV. 284-327 (1962).

31. *Cf.* T. BECKER, POLITICAL BEHAVIORALISM AND MODERN JURISPRUDENCE 11 (1964): "the judicial process is verily a vehicle by which revealed truth is discovered through skill in legal logic."

We are now in a position to return to Figure 1, and to examine the circular order among the major system variables. These are the sequence of alternating residual and overlapping spaces which surround the central space which symbolizes decision-making. Table III suggests that this circular relationship among the behavioral spaces can

TABLE III

THREE TYPES OF RATIONALITY IN ADJUDICATIVE DECISION-MAKING

System variables	*Logical*	*Psychological*	*Non-logical*
Social	facts	interest articulation and aggregation interaction and communication	stress
Sociopsychological	legal training	socialization and recruitment attributes attitudes	neuroses
Personality	skill	perception cognition choice	displacement
Psychocultural	stare decisis	ideologies individual roles	rationalization
Cultural	justice	norms	rationales
Sociocultural	law	accommodation regulation	homeostasis

be interpreted from the points of view of three differing concepts of rationality: logical, psychological, and non-logical. The concepts denoted in the column for *logical* rationality correspond very closely to the traditional wisdom: judges are persons who, as the result of *legal training*, acquire special *skills* which they apply to the analysis of socially-determined *facts*, and acting under the procedural decision-making norm of stare decisis, they dispense *justice* between the parties and reaffirm the *law* which is supposed to control the behavior of all persons in the society.[32] From a perhaps equally extreme point of view at the other tail of the postulated continuum of rationality, judges are ordinary humans who are controlled by their neuroses; they therefore

32. *See* C. G. HOWARD & R. S. SUMMERS, LAW, ITS NATURE, FUNCTIONS, AND LIMITS (1965).

react to social *stress* by displacing their inner anxieties upon outer (*viz.*, social) objects.[33] This *displacement* is a process of *rationalization*, which judges articulate in conventionally acceptable arguments, or "*rationales*," in order to attempt to bring about *homeostasis* in the balance of their own inner lives (*i.e.*, tensions).

Psychological rationality is in a modal position between the other two types of rationality. According to this theory, judges receive certain information concerning cases they are expected to decide, as a consequence of social input functions of interest articulation and aggregation, and of interaction and communication. (These correspond to argument between counsel, the examination of witnesses in trials, and the sequence of interim decisions, by the judge, on questions of procedure that arise during the course of the trial; or also, in appellate courts, to briefs filed by counsel and to discussions among the judges.) To be distinguished from this proximate information about the pending case is the more stable and enduring kind of information which the judge has accepted, at earlier stages of his career, as the result of his socialization and recruitment experience.[34] Sociopsychological structures such as a judge's attributes and his attitudes are causally related to, and dependent upon, the input functions of socialization and recruitment. Both kinds of information—the proximate data about the case, and his predisposition or bias toward the kind of policy question that it raises for decision—are of critical importance to the choice that he will make, and both kinds of information are produced primarily as the result of his interaction with other people.[35]

Perception, cognition, and choice-making are personality function concepts which purport to distinguish sequential states in a continuous and continuing process. Their utility is for purposes of analysis. For example, both the logical and the non-logical types of rationality also assume—although usually with no discussion of the matter—that perception takes place before, in the first instance, skill can be exercised or,

33. H. D. LASSWELL, POWER AND PERSONALITY (1948).

34. As Almond and Coleman have noted,

> political socialization produces the basic attitudes in a society toward the political system, [and the] political recruitment function takes . . . members of the society out of particular subcultures . . . and inducts them into the specialized roles of the political system, trains them in the appropriate skills, provides them with political cognitive maps, values, expectations, and affects.

THE POLITICS OF THE DEVELOPING AREAS 31 (1960); and *cf.* G. ALMOND & G. B. POWELL, JR., COMPARATIVE POLITICS: A DEVELOPMENTAL APPROACH ch. 3 (1966).

35. W. Murphy, *Courts as Small Groups*, 79 HARV. L. REV. 1565-72 (1966).

in the second instance, displacement can occur. But neither cognition nor choice-making are necessary elements in the logical, or in the non-logical, theories of personality. The personality structures which will affect one's choice-making are ideology and role. The former is his pattern of beliefs, expectations, obligations and related knowledge about life and the world and the latter is his understanding of others' expectations, and his own expectations, concerning how he shall make his choices and what they should be.[36] The latter point in particular—the psychocultural concept of role, in comparison to the logical concept of stare decisis, and the non-logical concept of rationalization—illustrates the advantages that the psychological theory offers, even if we speak for the moment only in terms of greater flexibility. There is nothing to preclude either stare decisis or rationalization from supplying the content for the concept of role, for any particular judge or group of justices; but both stare decisis and rationalization are limiting cases, and the psychological theory does not require that *either* of these provide a monistic definition of judicial role.

The output functions of a judge's decisions are, from a cultural point of view, the policy norms associated with his choices, and, from a sociological point of view, output functions include the accommodation and regulation of the interests of the litigants, and of other persons directly affected.[37]

No doubt, the psychologically rational approach to judicial decision-making involves considerable oversimplification of the multidimensionality of empirical reality; but the circular two-dimensional ordering does offer a much more complex model than does either of the alternative, linear schemes.[38] It seems likely, moreover, that it may also offer some

36. J. Herndon, *The Role of the Judiciary in State Political Systems*, in JUDICIAL BEHAVIOR: A READER IN THEORY AND RESEARCH 153-61 (G. Schubert ed. 1964); D. Jaros and Robert I. Mendelsohn, "The Judicial Role and Sentencing Behavior," 11 MIDW. J. POL. SCI. 471-88 (1967); and K. N. Vines, *The Judicial Role in American States: An Exploration* (paper presented at the Shambaugh Conference on Judicial Research, University of Iowa, October 1967); to be published in THE FRONTIERS OF JUDICIAL RESEARCH (J. Tanenhaus & J. Grossman eds. 1968, forthcoming). More generally see ROLE THEORY: CONCEPTS AND RESEARCH (Bruce J. Biddle and Edwin J. Thomas eds. 1966).

37. K. M. DOLBEARE, TRIAL COURTS IN URBAN POLITICS: STATE COURT POLICY IMPACT AND FUNCTIONS IN A LOCAL POLITICAL SYSTEM (1967); and *The Federal District Courts and Urban Public Policy: An Exploratory Study (1960-1967)* (paper presented at the Shambaugh Conference on Judicial Research, University of Iowa, October 1967); to be published in THE FRONTIERS OF JUDICIAL RESEARCH (J. Tanenhaus & J. Grossman eds. 1968, forthcoming).

38. L. Guttman, *A New Approach to Factor Analysis: The Radex*, in MATHEMATICAL THINKING IN THE SOCIAL SCIENCES 216-348 (P. Lazarsfeld ed. 1954).

promise of affording a better fit to the relevant empirical data, than does either of the other two alternatives. The present difficulty in testing the utility of the model is that most of the relevant empirical data remain to be observed, analyzed, and reported. But, however inadequate it might prove to be when data become available to appraise its "goodness of fit," the theory of psychological rationality may in the meantime be of some use in guiding the very research efforts which can result in its disconfirmation. At least, it offers two considerable advantages over the conventional wisdom about judges: it is not fettered with the idiosyncratic parameters of the American politico-legal culture; and it offers some promise of forging a theory about judges and courts which can articulate with what otherwise is known scientifically about human behavior.

BEYOND THE FRONTIERS OF JUDICIAL RESEARCH

What are the implications of the standpoint of behavioral jurisprudence, for the development of research in judicial process and systems? The answer to that question depends in part upon what are the present trends in this subfield, in political science as an academic discipline and in the behavioral sciences generally. One can make certain inferences about present trends on the basis of a recent national conference which focused on the frontiers of judicial research.[39] Four emphases in particular were explicit in the papers and discussions there:

(1) transnational comparison;
(2) inquiry into mass behavior beyond the boundaries of judicial systems, to analyze the inputs that may lead to litigation and the consequences of judicial policy choices;
(3) acceptance of quantification as an indispensable component of empirical scientific inquiry; and
(4) agreement upon the importance of interdisciplinary contributions to theory construction and empirical knowledge.

A fifth point, which was made by C. Herman Pritchett, the keynote speaker at the Shambaugh Conference and which seems to be amply supported by empirical evidence, is that the field of judicial process and behavior has become (at last) an integral part of political science inquiry. Political scientists in such other fields as legislative behavior, com-

39. The Shambaugh Conference on Judicial Research, convened at the University of Iowa, Iowa City, Iowa, October 5-7, 1967.

parative politics, and international behavior take an active interest in what their colleagues in the adjudicative field have to say—and about theory and method as well as about substantive findings. As Professor Pritchett pointed out, the isolation of the field, as an exotic enclave within the discipline, is no more. In choosing the term "political jurisprudence" to refer to the judicial process and behavior approaches, Pritchett was emphasizing the reciprocal *intra*disciplinary contributions that now obtain among political scientists who study judicial systems and decision-making, and political scientists who study other aspects of political behavior.

My own answer to the question takes the form of hypothetical statements in a developmental analysis, projecting into the near future these present trends, in relation to the needs for empirical data relevant to the variables and relationships that I have hypothesized to be important to behavioral jurisprudence. I shall discuss my prospectus in terms of three facets: substantive inquiry, theory, and methods.

Considerably more work will be done on interest aggregation and articulation as inputs to, and at the boundaries of, judicial systems. The studies by Vose, principally of the NAACP, are now a decade old;[40] and Hakman's occasional interim article reports on his continuing studies of what he calls litigation sponsorship and management,[41] although directly relevant, are by no means sufficient to guide understanding concerning the extent of empirical support for the Bentleyan thesis, as it relates to the judicial process. Early attempts to study the relationship between the background characteristics of judges as gross ideological categories, by means of direct and simple (bivariate) correlation, yielded few significant findings.[42] This phase is over; instead there will be

40. C. E. Vose, *Litigation as a Form of Pressure Group Activity*, 319 ANNALS 20-31 (1958), and CAUCASIANS ONLY: THE SUPREME COURT, THE NAACP, AND THE RESTRICTIVE COVENANT CASES (1959).

41. N. Hakman, *Business Influence in the Judicial Process*, W. BUS. REV. 124-30 (1957); *Lobbying the Supreme Court—An Appraisal of "Political Science Folklore,"* 35 FORDHAM L. REV. 15-50 (1966); and *The Supreme Court's Political Environment: The Sponsorship and Management of Supreme Court Non-Commercial Litigation* (paper presented at the Shambaugh Conference on Judicial Research, University of Iowa, October 1967); to be published in THE FRONTIERS OF JUDICIAL RESEARCH (J. Tanenhaus & J. Grossman eds. 1968, forthcoming).

42. D. R. Bowen, The Explanation of Judicial Voting Behavior from Sociological Characteristics of Judges (Ph.D. dissertation in political science, Yale University, 1965; Ann Arbor, Michigan: University Microfilms No. 65-15,014); and S. Goldman, Politics, Judges, and the Administration of Justice: The Backgrounds, Recruitment, and Decisional Tendencies of the Judges on the United States Courts of Appeals, 1961-1964 (Ph.D.

much greater concern for studying the socialization[43] and recruitment[44] of judges, and for the use of causal modelling techniques[45] to investigate hypotheses concerning the relative strength and the direction of relationships among attribute, ideological, attitudinal, and decisional variables.[46] Such work on input analysis will take into account such facets of logical rationality as legal training, occupational skills, and stare decisis (though defined in psychocultural terms); and indeed there will be a continuing concern for investigation of such other facets of logical rationality as facts, law, and justice: such efforts will come, however, primarily from non-behaviorally oriented law professors, from those political scientists who continue to identify their interests as the study of public law, and from normatively oriented sociologists of law.[47] But the major focus will be upon work at the boundaries of the social and the biological sciences in investigations of the interplay among the human mind, body, and personality[48] in the conversion processes of decision-making postulated by the models of both psychological rationality and—to the extent that it proves possible to operationalize and to make systematic empirical observations that relate to its key concepts—non-logical rationality.

Thus, what lawyers call "stare decisis" will be studied not only from the psychocultural point of view of the way in which a judicial actor defines his individual role; stare decisis will be studied also as a function

dissertation in political science, Harvard University, 1965; Ann Arbor, Michigan: University Microfilms No. 65-9924) ch. 8.

43. S. WARKOV, LAWYERS IN THE MAKING (1965); and D. C. Lortie, *Laymen to Lawmen: Law School, Careers, and Professional Socialization*, 29 HARV. EDUC. REV. 352-69 (1959).

44. J. GROSSMAN, LAWYERS AND JUDGES (1965); and H. Jacob, *The Effect of Institutional Differences in the Recruitment Process: The Case of State Judges*, 13 J. PUB. L. 104-19 (1964).

45. H. M. Blalock, *Causal Inferences, Closed Populations, and Measures of Association*, 61 AM. POL. SCI. REV. 130-36 (1967); Hayward R. Alker, Jr., *Causal Inference and Political Analysis*, in MATHEMATICAL APPLICATIONS IN POLITICAL SCIENCE, II, 7-43 (J. L. Bernd ed. 1966).

46. G. SCHUBERT, JUDICIAL BEHAVIOR: A READER IN THEORY AND RESEARCH 447 (1964); and G. Schubert, *A Causal Model of the High Court of Australia*, in COMPARATIVE JUDICIAL BEHAVIOR: CROSS-CULTURAL STUDIES IN POLITICAL DECISION-MAKING IN THE EAST AND WEST (G. Schubert & D. Danelski eds. 1968, forthcoming).

47. P. Selznick, *The Sociology of Law*, in SOCIOLOGY TODAY ch. 4 (R. Merton *et al.* eds. 1959); and J. Skolnick, *The Sociology of Law in America: Overview and Trends*, 13 SOC. PROB. (SUPP.) 4-39 (Summer 1965).

48. AFFECT, COGNITION, AND PERSONALITY (S. S. Tomkins & C. E. Izard eds. 1965); A. L. KNUTSON, THE INDIVIDUAL, SOCIETY, AND HEALTH BEHAVIOR (1965); B. CAMPBELL, HUMAN EVOLUTION: AN INTRODUCTION TO MAN'S ADAPTATIONS (1966).

of such psychological variables as commitment and identification, and of such sociopsychological variables as reinforcement and reference group behavior.[49] Considerable attention will focus upon group interaction processes, and upon judicial attitudes as dependent variables influenced by such independent variables as the frequency, affectiveness, and propinquity of interpersonal contacts, in relation to preferences among alternatives of substantive policy content.[50] There will be inquiry into the differences in individual judicial performance, when the individual is placed in the shifting social context of differing ad hoc decisional subgroups, as in the panels of the national courts of appeals. The description of most trial courts in the United States as "single-judge" institutions for purposes of decision-making will be treated as an hypothesis rather than as a self-evident truth; and studies will be designed to analyze not merely trials—which so evidently are group performances—but also the trial *judge* as the (by institutional role) leading actor in a social system, with various other judge-like actors (referees in bankruptcy, commissioners, clerks) sharing in the accouterments of the judicial office (*viz.*, wearing robes, being addressed as "judge" or "your honor") and participating actively in specialized aspects of the "court's" decision-making function. Also within the American judicial system, there will be emphasis upon comparative (*i.e.*, cross-subcultural) study of the structuring of institutional roles in relation to differences in the sociocultural content of inputs, policy outputs, and the policy effects of judicial decision-making.

Although there have been impact studies of national judicial policy-making, these have tended to be case studies of the responses of individual communities to discrete Supreme Court decisions.[51] In the future there will be much more broadly gauged and systematic investigations into the relationships among judicially pronounced policies as stimuli,

49. G. SCHUBERT, CONSTITUTIONAL POLITICS: THE POLITICAL BEHAVIOR OF SUPREME COURT JUSTICES AND THE CONSTITUTIONAL POLICIES THAT THEY MAKE 218 (1960); R. C. Lawlor, *supra* note 9.

50. S. S. Ulmer, *Toward a Theory of Sub-Group Formation in the United States Supreme Court*, 27 J. POL. 133-52 (1965); and *Subset Behavior in the Supreme Court*, in COALITION BEHAVIOR (Groennings, A. Leiserson, & E. W. Kelley eds. 1968, forthcoming).

51. *E.g.*, G. Patric, *The Aftermath of a Supreme Court Decision*, 6 J. PUB. L. 455-63 (1957); F. Sorauf, *Zorach v. Clauson: The Impact of a Supreme Court Decision*, 53 AM. POL. SCI. REV. 777-91 (1959); S. Wasby, *Public Law, Politics, and the Local Courts: Obscene Literature in Portland*, 14 J. PUB. L. 105-30 (1965); Robert H. Birkby, *The Supreme Court and the Bible Belt: Tennessee Reaction to the "Schempp" Decision*, 10 MIDW. J. POL. SCI. 304-19 (1966).

the response of governmental and other elites who constitute (variously, depending upon the policy content) the Supreme Court's audience, and mass responses either to the Court directly or, as seems much more probable, to the cues provided by the Court's elite audience.[52] Such studies will involve extensive inquiry into the correlation between judicial manipulation of cultural norms, and the extent of change in relevant mass behavior; and these surveys will go beyond correlational to causal analysis. The kinds of questions that will be examined will include: what is the relationship between the Supreme Court's obscenity decisions (beginning in the mid-'fifties) and the contemporary liberalization of artistic expression in magazines, books, movies, and supper clubs? What is the relationship between the Supreme Court's postulation of greater procedural rights for defendants in criminal cases, and changes in the behaviors of police, criminals, and other populations such as students seeking institutional procedural due process from their universities, or persons who oppose current governmental policy in regard to such matters as the Vietnam war or the regulation of LSD and marijuana? What is the relationship between the new constitutional policy of racial equality and integration, and the rise of social movements advocating racial segregation and black power? Judicial policy-making, that is to say, will be viewed as falling within the mainstream of development and change in national social movements and mass behaviors; and it will be studied accordingly.

As Harold Lasswell long has urged ought to be done,[53] the judicial policy-making process will be studied from the perspective of its past and potential contribution to political creativity, that is, to the postulation of new alternatives—and frequently, these will be the very ones that have been screened out of public view, by the legislative and administrative processes—which thereby become possible options of choice for other actors in both the public and private sectors of the society. (Racial integration and reapportionment are recent judicial policies which might

52. W. F. Murphy and J. Tanenhaus, *Public Opinion and the United States Supreme Court: A Preliminary Mapping of Some Prerequisites for Court Legitimation of Regime Changes* (paper presented at the Shambaugh Conference on Judicial Research, University of Iowa, October 1967); to be published in THE FRONTIERS OF JUDICIAL RESEARCH (J. Tanenhaus & J. Grossman eds. 1968, forthcoming).

53. H. D. Lasswell, *Current Studies in the Decision Process: Automation versus Creativity*, 8 W. POL. Q. 381-99 (1955); and *cf.* G. Schubert, *The Importance of Computer Technology to Political Science Research in Judicial Behavior*, 8 J. OF JURIMETRICS (1968, forthcoming).

be viewed as examples of creative contributions to the redevelopment of American political society.)

The policy output of courts will also be studied from the points of view of institutional differentiation, specialization of function, and the partitioning of local populations into functionally oriented clientele groups. To what extent, for example, do national district courts in metropolitan areas articulate their work with the major national urban policy programs in such areas; and how do the policy decisions of such national district courts relate to those of state courts in regard to the same metropolitan population?[54]

Feedback, as a response to judicial policy-making and as an aspect of both elite and mass behavior, will be studied in relation to perception ("awareness"), the structure of cognitions, and psychological involvement with judiciaries at all levels of hierarchical differentiation of such judicial systems.[55] A by-product of the more widespread recognition that there is an important and continuing interrelationship between judicial process and behavior and such other political science fields as public opinion, will be much closer *intra*disciplinary integration, with the probable consequence that the study of judiciaries will increasingly come to be viewed as one among several facets of the study of domestic politics, as distinguished from comparative ("transnational") politics, or as distinguished from international politics. But there will also be much closer cross-disciplinary integration between political science students of judicial process, and scholars in other behavioral disciplines. In part, this will involve the development of new ties with biologists and psychologists, and particularly with scholars in the health sciences: senescence, for example, will no longer continue to be considered merely at the rhetorical level of analysis, in studies of the decision-making of (typically) elderly judicial elites. There will, however, be even closer collaboration with the social sciences of anthropology, economics, and sociology.

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54. DOLBEARE, *supra* note 37.

55. W. F. Murphy and J. Tanenhaus, *Constitutional Courts, Public Opinion, and Political Representation* (paper presented at the Seventh World Congress, International Political Science Ass'n., Brussels, September 1967), and *Public Opinion and the Supreme Court: The Goldwater Campaign*, PUB. OPIN. Q. (1968, forthcoming); K. M. Dolbeare, *The Public Views the Supreme Court*, in LAW, POLITICS, AND THE FEDERAL COURTS 194-212 (H. Jacob ed. 1967); J. Kessel, *Public Perceptions of the Supreme Court*, 10 MIDW. J. POL. SCI. 167-91 (1966); and Kenneth M. Dolbeare and Phillip E. Hammond, *The Political Party Basis of Attitudes Toward the United States Supreme Court*, 16 PUB. OPIN. Q. 16-30 (1968).

The current interest in transnational comparison of judiciaries, one of the major emphases of the Shambaugh Conference, will lead to multicultural (horizontal) analysis of adjudicative processes and functions, as well as to the development of systematically designed vertical descriptions of the role of judiciaries, in both European and non-Western political systems. One consequence of this development will be that the field of study of adjudicative behavior no longer will remain one which is monopolized by scholars in the United States.[56]

In terms of theory, the major emphasis in the near future—in behavioral jurisprudence as in political science generally—will be various types of systems analysis. Some of these will directly reflect the biological models from which they are borrowed;[57] others will be presented in a rhetoric which borrows heavily from the new sciences of information theory, cybernetics, and semiotics, and from computer technology.[58] Even today the systems vernacular has none of the novelty which it presented, at least as applied to the study of judiciaries, as recently as a couple of years ago;[59] and tomorrow systems analysis will be the conventional mode of discourse in the field. Strong emphasis will also be placed, however, upon continuation of the present work in decision-making theory,[60] role theory,[61] and transactional theory.[62] Game theory,

56. Already there have been important research contributions by colleagues abroad. *See* V. Aubert, *Conscientious Objectors Before Norwegian Military Courts,* and U. Torgersen, *The Role of the Supreme Court in the Norwegian Political System,* both in JUDICIAL DECISION-MAKING 201-44 (G. Schubert ed. 1963); V. Aubert, *Researches in the Sociology of Law,* 7 AM. BEHAV. SCI. 16-20 (December 1963); T. Hayakawa, *Legal Science and Judicial Behavior, With Particular Reference to Civil Liberties in the Japanese Supreme Court,* 2 KOBE U. L. REV. 1-27 (1962); S. R. Peck, *The Supreme Court of Canada, 1958 to 1966: A Search for Policy Through Scalogram Analysis,* 45 CAN. B. REV. 666-725 (1967); and *A Behavioral Approach to the Judicial Process: Scalogram Analysis,* 5 OSGOODE HALL L. J. 1-28 (1967); and Abelardo G. Samonte, *The Philippine and American Supreme Courts: A Comparative Study of Judicial Attributes, Attitudes, and Decisions* (paper read at the 62nd Annual Meeting of the American Political Science Ass'n, 1966). Others will be forthcoming soon. *See* COMPARATIVE JUDICIAL BEHAVIOR: CROSS-CULTURAL STUDIES IN POLITICAL DECISION-MAKING IN THE EAST AND WEST, *supra* note 46.

57. M. Landau, *Due Process of Inquiry,* 9 AM. BEHAV. SCI. 4-10 (October 1965), and *Baker v. Carr and the Ghost of Federalism,* in REAPPORTIONMENT 241-48 (G. Schubert ed. 1965).

58. K. DEUTSCH, THE NERVES OF GOVERNMENT (1963); Ulmer, *supra* note 26.

59. G. SCHUBERT, JUDICIAL POLICY-MAKING: THE POLITICAL ROLE OF THE COURTS (1965).

60. J. A. Robinson & R. C. Snyder, *Decision-Making in International Politics,* in INTERNATIONAL BEHAVIOR: A SOCIAL-PSYCHOLOGICAL ANALYSIS 435-63 (H. C. Kelman ed. 1965).

61. Vines, *supra* note 36.

62. DANELSKI, *supra* note 7.

which has seemed to offer such considerable promise for studies of legal decision-making processes, providing as it does a measure of the deviation of empirically observable behaviors, from what would be strictly rational behavior, will receive greater attention now that more political scientists are becoming increasingly familiar with contemporary research in economics.

From the methodological point of view, future work in the adjudicative field will see much greater emphasis upon present predictions of future events;[63] and the effect will be to strengthen tremendously the power of behavioral jurisprudential theory. Accompanying the shift in emphasis to predictive work will be much greater reliance upon experimentation,[64] simulation,[65] and field surveys[66] as methods of inquiry than has been evident heretofore. There will also be an acceleration of the present trend away from linear and toward multivariate analysis, in phase with both the longstanding recognition that the questions of interest to the field are better fitted to multidimensional models, and the growing capacity of scholars in the field to take advantage of computer technology in their research (thereby freeing them from the limitations of time and competence imposed by manual routines of statistical analysis). And especially in the latter regard there will be a dramatic change in the standards of literacy in the profession, and consequently in what are accepted as the conventional modes of professional practice. Even today the ratio of persons working in the field, who have had any mathematical or statistical training beyond the freshman undergraduate level, is very small; but graduate students now entering the field are required to have had such training as part of their education as *political scientists;* and the impact of such better education, upon the level of sophistication in the quantitative work to be done in the next several years, will be considerable.[67]

63. *E.g.*, G. Schubert, *Judicial Attitudes and Voting Behavior: The 1961 Term of the United States Supreme Court,* 28 L. & CONTEMP. PROB. 102-08, 137-42 (1963), and JUDICIAL BEHAVIOR: A READER IN THEORY AND RESEARCH 575-87 (1964).

64. T. Becker, D. C. Hildrum, & K. Bateman, *The Influence of Jurors' Values on Their Verdicts: A Courts and Politics Experiment,* 46 SW. SOC. SCI. Q. 132-40 (1965).

65. W. F. Grunbaum, *Analytical and Simulation Models for Explaining Judicial Decision-Making* (paper presented at the Shambaugh Conference on Judicial Research, University of Iowa, October 1967); to be published in THE FRONTIERS OF JUDICIAL RESEARCH (J. Tanenhaus & J. Grossman eds. 1968, forthcoming).

66. T. Becker, *Surveys and Judiciaries, or Who's Afraid of the Purple Curtain,* 1 L. & SOC'Y. REV. 133-43 (1966).

67. R. W. Gerard, *Quantification in Biology,* in QUANTIFICATION: A HISTORY OF THE MEANING OF MEASUREMENT IN THE NATURAL AND SOCIAL SCIENCES 204-22 (H. Woolf ed. 1961).

The most general projection that one would make, on the basis of present trends, is that beyond the frontiers of judicial research lies the field of behavioral jurisprudence: empirical in its approach toward data collection; quantitative in its methods of data manipulation; eclectic in its intradisciplinary ties within political science; pandisciplinary in its theoretical orientation; and cross-cultural in the scope of its interests.