New Approaches to Legal Study

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Most lawyers — be they practitioners, judges, or just plain academics — have a fairly clear idea of what it is they must do when "studying law". Most lawyers, without giving the matter very much thought, concern themselves with interpreting statutes according to well-understood principles, analysing cases using time-honoured notions such as stare decisis, ratio decidendi, and obita dicta, and occasionally (very occasionally, with much trepidation and many disclaimers) venturing a policy suggestion or two. Not many have wanted to do much else, and few have suggested any virtue in trying anything new.

But the winds of change appear to be upon us. The last decade or so has seen development of several apparently new approaches to consideration of the law. It is my purpose in this essay to examine two of the better-developed streams of development, in an attempt to fix their value and significance. I refer to jurimetrics¹ — a term generally taken to refer to the use of electronic (computer) retrieval, quantitative methods, and symbolic logic in the study of law² — and to the growing body of jurisprudential writings by philosophers, primarily moral philosophers, generally on topics of contemporary political interest, such as civil disobedience, abortion and euthanasia.³

¹A word coined by Lee Loevinger; see Loevinger, Jurimetrics — The Next Step Forward, (1949) 33 Minn. L. Rev. 455.
³I do not mean to underestimate the importance of developments which time prevents me from considering, such as the political process approach (see Glendon Schubert, Judicial Policy-Making, (Glenview: Scott, Foresman, 1965)); impact analysis (see Becker (ed.), The Impact of Supreme Court Decisions, (New York: Oxford University Press, 1969)); games theory (see James Marshall, Lawyers, Truth and the Zero-Sum Game, (1972) 47 Notre Dame Lawyer 919); artificial intelligence (see L. Thorne McCarty, Interim Report on the TAXMAN Project: An Experiment in Artificial Intelligence and Legal Reasoning, (unpublished

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These two streams of development are a product, with respect to jurimetrics, of western preoccupation with science at the end of the 1950's (when jurimetrics as a field of study gained that momentum which has carried it through to the present day), and, with respect to the writings of philosophers on legal subjects, growing nation-wide concern in the United States about issues such as civil disobedience associated with the war in Indo-China.

1. Jurimetrics

In the field of jurimetrics, most time, effort and money has been spent on development of electronic legal retrieval. Development of computerized retrieval of legal materials was prompted by the exponential increase in the volume of those materials. A century ago the Harvard Law Library had less than 15,000 volumes; today it has over 1,000,000 and adds about 20,000 yearly. Growth of this magnitude makes it extremely difficult to find all or even most of the material relevant to a given legal problem. The consequences are several and important. Fewer and fewer legal cases are adequately prepared. There is a growth in intellectual and geographical insularity, since lawyers seek to restrict what it is they must consult, and choose only those materials from the local jurisdiction or only

paper presented at the Workshop in Computer Applications to Legal Research and Analysis, Stanford Law School, April 28-9, 1972); interdisciplinary study (see L. Thorne McCarty's seminar Decision Technology and Law at the Stanford Faculty of Law, 1973); and many others.

4. My account of electronic legal retrieval is based on extensive research which I undertook in 1972 on behalf of the Department of Communications of the Government of Canada. The complete results of that research are to be found in my report, entitled Electronic Legal Retrieval: The Impact of Computers on a Profession, to be published in 1973 by the Department of Communications. My thanks go to the Department, and particularly to Mr. Kenneth M. Katz and Mr. Richard Gwyn, for encouraging and sponsoring my investigations. I should like to acknowledge the important assistance of Mr. Eric Nadler, a student in the Faculty of Law, McGill University, who acted as my research assistant on this project.

those dealing with a narrow point. The cost of research increases to the point where large law firms or government agencies alone can properly undertake it, prejudicing small firms that represent weak clients and exacerbating existing social inequalities.

The first electronic legal retrieval system was devised by Professor John Horty, at the University of Pittsburgh Health Law Center, beginning in 1959. Important systems now operating in the United States include Ohio Bar Automated Research (OBAR), operated on a commercial basis by Mead Data Central Inc.; JURIS of the United States Department of Justice; and LITE (Legal Information Through Electronics), run by the United States Air Force. The two major Canadian systems are DATUM/SEDOJ (Documentation Automatique de Textes juridiques de l'Université de Montréal), and QUIC/LAW of the Faculty of Law of Queen's University. Lesser systems devoted to statute retrieval exist.

QUIC/LAW is representative of development in this field. It was designed to be an "interactive" system, allowing the user to conduct his own searches in direct communication with the computer without the intervention of a third party; this allows the user to obtain constant "feedback", so that he can reformulate his questions in light of the system's response. The present QUIC/LAW data base consists of 67,000 abstracts of recent scientific works on pollution, the full text of Supreme


7. For an account of this project, see John Horty, The "Key Words in Combination" Approach, (1962) M.U.L.L. 54.


10. For example, MODUL (Medium Ordinateurs et Droit) of Laval University. See Jean Goulet, Sylvain Houle, and Jeanne Leclerc-Houde, Jurimétrie et loi: modul, (1971) 6 R.J.T. 115. A large number of European computerized legal retrieval systems exist; for a comprehensive listing, see Computerized Research in Countries Outside North America, (1972) 12 Jurimetrics Journal 119.

11. The time of writing is December, 1972.
Court of Canada decisions from 1923 to the present, the full text of the 1970 Revised Statutes of Canada, the Ontario Reports 1940-72, the Federal Court Reports, and Federal Statutory Orders and Regulations (an unofficial consolidation as of April, 1969). Each word in the data base serves as an index for the term or concept it represents. Words used in a search formulation are index "locators;" locator and index words are "matched," with the "matched" document then being retrieved in one of several alternative ways. The assumption is that any document mentioning the key words used in the search formulation will be relevant since the mere occurrence of the words should reveal the document's significance.

A search "mesh" can be created by use of Boolean mandatory conditions. By employing an ampersand the user can request retrieval of documents in which one word appears together with another specified word. By employing the "but not" instruction (represented in QUIC/LAW by a percent sign), the user can ask for documents in which one (or more) words appear and in which other specified words do not appear. QUIC/LAW lacks a positional logic feature at present. Usually when a searcher specifies that he wishes two words to co-occur in a document he wants them next or close to each other, since it is likely that they will then represent a single concept, but QUIC/LAW will retrieve any document in which both search terms occur, regardless of their relative positions.

QUIC/LAW has the capability of ranking retrieved documents in order of their supposed "relevance". Ranking value is computed during the search by statistical algorithms:

The algorithms used by QUIC/LAW for computing ranking values are based on the assumption that the statistical distribution of a term in the data base being searched and in a given document within the data can be used as a predictor of the relevance of the document to the query containing such a term. Thus, a ranking value is computed as an association factor between a word and a document; and the final ranking value for a document is obtained by summing the values for each word of the query contained in the document.12

There are eleven ranking algorithms available to QUIC/LAW users. If the user fails to specify an algorithm (which is generally the case), QUIC/LAW automatically employs a default algorithm which heavily increases the weight of documents in proportion to the number of query terms they contain.\(^3\)

In what sense, if at all, is electronic legal retrieval a "new" way of approaching law? On the face of it, all that is involved is doing more quickly and more efficiently what everyone has done all along. All that computers involved in retrieval seem to do is find relevant statutes and cases so that the lawyer may then interpret and apply them in the traditional manner. This view of electronic retrieval is the orthodox attitude, and yet it is substantially wrong. A careful examination shows that the impact of electronic legal retrieval on legal thought can be substantial. The impact comes from an incompatibility between orthodox legal thought processes and the constraints imposed by the computer on the user.

The salient general characteristics of electronic legal retrieval systems are as follows: (1) storage is on a full-text basis; (2) searching is by means of key words; (3) there is a Boolean logic capability; (4) there may be a statistical ranking capability; (5) a thesaurus may be operative; (6) there may be a positional logic feature; and (7) generally the system is of an on-line interactive kind. These features may be summarized in this way: the state of the art in electronic legal retrieval allows the user (in a hypothetical system) to retrieve in an interactive fashion the full text of statistically ranked legal documents in which certain key words or their synonyms appear positionally related to other key words or their synonyms.

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\(^3\) DATUM, of the University of Montreal, differs from QUIC/LAW in at least two respects. First, it is not an interactive system; a user conveys his request (by phone or mail) to a DATUM "consultant" who interprets the request to the system and then interprets the system's response for the user. Second, DATUM has made some attempt to meet the problem of synonyms. The DATUM solution is based on the Kayton SYNDING thesaurus — see rving Kayton, *Retrieving Case Law by Computer: Fact, Fiction and Future*, (1966) 35 Geo. Wash. L. Rev. 1, at pp. 31-42. For details of the DATUM thesaurus, see Ejan MacKaay, *La création d'un Thésaurus bilinque pour DATUM*, (1971) 6 R.J.T. 51, and Wallace J. Schwab, *La réalisation du thésaurus-s et du thésaurus-g*, (1971) 6 R.J.T. 69.
Regrettably little research has been undertaken into how lawyers think. In a recent and in some respects pioneering article, Buchanan and Headrick isolate four stages in a practising lawyer's thought processes: (1) the lawyer establishes a goal, finds linkage from facts to rules to legal consequences, and measures at various stages the compatibility of a set of consequences with the established goal; (2) the facts suggest some possibly applicable rules, and the rules and the cases using them suggest the relevance and importance of certain facts; (3) the lawyer differentiates between different rules that might apply to the same behaviour and events; (4) if the lawyer cannot find cases whose facts are similar to the facts with which he is working, he attempts to find cases with facts that are analogous to his own. More is known of how judges reason.

A clear and traditional account has been given by Professor Rupert Cross. Cross argues that the deductive element in judicial reasoning is trivial, since the crucial characterization is done before the reasoning can be cast into syllogistic form. He notes that little a judge does can properly be described as inductive, since in law, unlike in science, rules govern cases, rather than cases generating rules. The key to judicial reasoning, in Cross' opinion, is reasoning by analogy.

The Buchanan and Headrick analysis demonstrates that the practising lawyer, confronted with particular facts that pose a legal problem, seeks, (a) the same or a very similar factual situation; (b) an analogous factual situation; or (c) a rule which

15. Ibid., at pp. 51-52.
benefits his client and is *prima facie* applicable to the case. Cross's discussion suggests that a judge does one or more of the following: (a) looks for the same or very similar factual situations; (b) looks for analogous factual situations; (c) determines the *ratio decidendi* of identical, similar or analogous case; (d) decides whether to apply that *ratio* on the basis of (i) how much the previous case resembles the instant case, or, more likely, (ii) policy considerations. I have observed elsewhere that "whatever it is that stimulated judicial response, it is the rules and principles of law that define acceptable limits of that response..." What I mean is that although judges may be motivated by non-legal considerations, they must render judgment in terms of legal concepts. The consequence is that judges may well often be looking for a rule which achieves a particular policy purpose and is *prima facie*, according to legal concepts, applicable to the case at hand. If we bear this point in mind, we see that the way of thinking of the practising lawyer and the judge (and the corresponding research needs) are in all essential respects the same.

We need now ask whether electronic legal retrieval, exhibiting the characteristics I outline above, adequately represents the thought processes I describe. More specifically, we must ask whether the research needs of lawyers, corresponding to their thought processes, can (given the constraints of computer retrieval) be translated into key words positionally related to other key words. No easy answer can be given to this question; intensive research into both legal thought processes and electronic retrieval must be undertaken before any conclusions of general validity can be drawn. However, I want to indicate at least one possible conclusion that might result from detailed study. It is unlikely that a computer system can retrieve a legal rule which serves a particular purpose. Electronic retrieval of a legal rule or concept (that is, of a document in which the rule or concept appears) can only be accomplished if the user indicates precisely in words, either the nature of that rule or concept, or the nature of the document in which it will be found. It is exactly this that he cannot do. In the first place, *ex hypothesi* the user does not know what it is that he does not

know. Secondly, a legal concept or rule, unlike a factual occurrence, cannot adequately be described, and any retrieval system which imposes this requirement is doomed to failure. It may be objected that if in this respect electronic systems are no better than manual systems, at least they are no worse. But I suggest that manual searching in a library, unlike computer retrieval, permits random conceptual searching. It is this kind of search which permits the user rapidly and intuitively to transfer his attention from one part of the data base to a different part and which will allow retrieval of a purpose-serving rule; arguably it is here that creativity in legal research is to be found. Accordingly, electronic systems may well be worse than the manual equivalent.

Electronic legal retrieval, willy-nilly, may easily have a substantial impact on legal thought. To the extent that computer retrieval replaces manual retrieval, and thereby causes extinction of random conceptual searching, legal creativity will diminish. Creativity will be replaced by emphasis on that need which electronic retrieval can meet — the need to find identical, similar, or analogous fact situations. The outcome will be that qualitative judgment will be replaced by increase in data flow.

Use of quantitative methods — a second field of study falling under the rubric "jurimetrics" — has attracted some attention in Canada, with two or three scholars attempting to use these methods in the analysis of decisions by the Supreme Court.¹⁹ I have elsewhere analysed these methods and their application,²⁰ and will not repeat here at any length what I


have already said. The scalogram method has been described by
Glendon Schubert, its leading proponent, in the following way:

...the cases which the Court has docketed for
decision-making on the merits of the issues presented
are conceptualized as being equivalent to the items of
a questionnaire. Each case asks the justices to respond
to the question: is your attitude toward value X
sufficiently favourable that you believe that a claim
of degree Y should be upheld? ...X defines the
content of the scale variable which is perceived by the
respondents to be the relevant criterion for deciding
the case; Y is the perceived verbal statement which
specifies the location of the stimulus-point on the
scale...

If a judicial respondent accepts the defined
valuation, he is scored as having voted affirmatively;
if he rejects it, he is scored as having voted negatively.
The scale matrix consists of scores for the votes of
the respondents, with each column consisting of the
set of votes of a single justice for all decisions in
which he participated, and each row consisting of
that set of votes for all justices who participated in a
particular decision. ... In constructing the scale, the
objective is the usual one of maximizing the internal
consistency of the voting patterns for the respond-
ents. ...21

I suggested in an earlier article22 that although the technique
described by Schubert is apparently innovative, upon examina-
tion the underlying way of thinking about law seems to be the
same as, or at least similar to, that of the legal realists. The
importance of formal reasons for judgment is discounted, with
emphasis being paced on a judge's "vote". Early realists did not
progress much beyond speculating about the motives behind
any given "vote" (rejecting the idea that motives were expressed
in the judgment); modern behaviourists have erected a
scientific superstructure on the foundations laid by Frank and

University Press, 1965), at pp. 75-7.
22. Supra note 20, 21, U. of Tor. L.J., at p. 395.
others, but this should not obscure the fact that their techniques do not represent a significant new philosophical contribution to legal science.

A field of jurimetrics which is less developed but more interesting is the application of modern logic to legal analysis. To the extent that most lawyers are aware of and employ the techniques of "logic," they use the Aristotelian syllogism; very few know of the possibilities presented by mathematical or symbolic logic, a science which began in 1847, with publication by George Boole of *The Mathematical Analysis of Logic*,\(^2\) and gained major momentum at the beginning of this century with the appearance of the great work, *Principia Mathematica*.\(^3\) Loevinger describes the modern logical viewpoint or frame of reference as applied to legal analysis (to be distinguished from ostensible, psychological and empirical viewpoints) in the following way:

Whereas the ostensible level of analysis accepts the language of legal opinions at substantially its face value, the logical analysis inquires into the implications and significance of the terms and the context used. In the modern view, logic itself constitutes a different frame of reference than ordinary language. Logic, in the modern lexicon is a meta-language. To put it simply, language is a system of terms that refer to objects or things, whereas logic is a system of terms that refer to language; or, as Carnap puts it, logic is the syntax of language. The necessity for so regarding it arises from the fact that an inquiry into the validity of reasoning demands the use of some tools other than the reasoning itself. Reasoning, of whatever order, cannot validate itself.\(^4\)

The questions that can be asked within the logical frame of reference are, according to Loevinger, the following: "What are the meanings of the terms and contexts used? What are the

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implications of the principles and conclusions adopted? What is the form of the reasoning employed? In the circumstances, is this valid reasoning?"26

One of the few forays into this field is an attempt by Allen and Caldwell to develop ways of appreciating all possible meanings in syntactically ambiguous legal language.27 Allen and Caldwell offer a way of representing alternative interpretations of syntactically ambiguous statements by, (a) classifying the various elements comprising the statement, (b) tabulating the results of this classification, and (c) constructing diagrams from the tabulation.28 Classification involves distinguishing between: "(i) those elements of a statement that are subsidiary sentences, (ii) those elements of a statement that are only parts of sentences, (iii) those elements of a statement that are words that connect subsidiary sentences to other subsidiary sentences, and (iv) those elements of a statement that are words that connect parts of sentences to other parts of sentences."29 Tabulation prepares classified elements for diagramming; diagrams "are intended to furnish a means of expressing each of the possible syntactic interpretations of the statement unambiguously."30

A simple example, one of many examples discussed by Allen and Caldwell, may illustrate the purpose and technique of the method. The statement "He wore a light green suit to the game" has at least three possible meanings: "Was the suit in question: (A) light green in colour (but possibly heavy in weight?) (B) light in weight and green in colour (but possibly dark green?) (C) light in weight and light green in colour?"31 A full understanding of these possibilities is gained by considering these three diagrams, presented by Allen and Caldwell:32

26. Ibid., at p. 489.
28. Ibid., at p. 237.
29. Ibid. For a detailed description of the exact significance of these categories, see ibid., at p. 240.
30. Ibid., at p. 241.
31. Ibid., at p. 247.
32. Ibid.
I.

He wore

a

b   a

f

to the
game

light
c
green
d
suit
e

II.

III.
The same methodology can, of course, be applied to much more complicated statements; Allen and Caldwell apply the technique, for example, to s. 343 (c) of the Federal Food, Drug, and Cosmetic Act,33 s. 6731 (e) of the Business and Professions Code of California,34 and the following provision in a will which was in issue in Geyer v. Bookwalter:35 "She shall have good and full right to sell and convey fee simple title thereto, with such easements as are appurtenant, and not account for the proceeds thereof."

The value of using modern logic in legal analysis is as yet uncertain; this is simply because there has been insufficient experimentation to support general hypotheses, let alone valid conclusions. However, from work which has been done one can extract some indication of what future research may substantiate — namely, that application of modern logic to legal analysis permits, (1) the drafting of unambiguous legal documents, (2) full grasp of the possible interpretations of existing legal language, and (3) greater understanding of the "core" of legal meaning. The third possibility is of greatest importance, since full appreciation of legal language and its relationship to legal concepts might well permit radical new insights into law.

II. A New Jurisprudence

Until quite recently most jurisprudential inquiry conformed to a classic model. There has been preoccupation with a

33. S. 403, 52 Stat. 1047 (1938), as amended, 67 Stat. 631 (1953), 21 U.S.C. s. 343 (1958): "A food shall be deemed to be misbranded... (c) If it is an imitation of another food, unless its label bears, in type of uniform size and prominence, the word 'imitation' and, immediately thereafter, the name of the food imitated." See ibid., at pp. 236-240.

34. "Nothing in this chapter shall prohibit the preparation of plans, drawings, specifications, estimates or instruments of service for single or multiple dwellings not more than two stories and basement in height; garages or other structures appurtenant to such dwellings; farm or ranch buildings; or any other buildings, except steel frame and concrete buildings, not over one story in height, where the span between bearing walls does not exceed twenty-five (25) feet." This was the passage in issue in People v. Wright 131 C.A. 2d 853, 281 p. 2d 384, 390 (1955); see ibid., at pp. 261-165.

jurisprudential classification according to "theories" of law. The main "theories" mentioned are always the "natural law theory" and "positivism," although there is the occasional reference to "philosophical idealism," "sociological jurisprudence," "realism," "behaviouralism," "utilitarianism," and a variety of other "isms." What is revealed is a legal passion for labelling.

There has, however, been a discernible recent change in the nature of jurisprudential writings. Emphasis has come to be placed on particular and actual problems, moral or political, faced by individual citizens. This development was given its modern impetus by the "Wolfenden Report," published in Britain in 1957, which had as one of its recommendations that homosexual behaviour between consenting adults in private should no longer be a criminal offence. This recommendation was set in the context of an attitude to law sufficiently well-defined to be called a "philosophy"; the Report said that the function of the criminal law "is to preserve public order and decency, to protect the citizen from what is offensive or injurious, and to provide sufficient safeguards against exploitation and corruption of others, particularly those who are specially vulnerable because they are young, weak in body or mind, inexperienced, or in a state of special physical, official or economic dependence." The Wolfenden Report's recommendations, together with their philosophic underpinnings, touched off "a controversy which has maintained the highest


standards of public debate." The protagonists have been Lord Devlin, who argues that society has the right to use law to enforce a societal judgment on morals, and H. L. A. Hart, who adopted (with some modification) John Stuart Mill's position that power over the members of a community can only be exercised to prevent harm to others. This debate, which is well-known and much admired, has in most jurisprudential works been catalogued according to the old classification. But such classification obscures the essential nature of the controversy; Hart and Devlin, together with acolytes and commentators, were only, as it were, incidentally commenting on the nature of law. Their main purpose was to consider the attitude the law should adopt towards a particular problem in a particular state at a particular time. Classification in the old style not only obscures the nature of the debate; it also proves a remarkably poor way of describing or indexing it. MacGuigan, for example, includes Hart's "Positivism and the Separation of Law and Morals" under "Positivism," but reprints Shaw v. Director of Public Prosecutions in his chapter entitled "Natural Law Thought."

The discussion arising from the Wolfenden Report is by no means unique in style and content. Similar controversy has, for

41. The main argument is to be found in Devlin, supra note 39.
42. Hart's position is to be found in Law, Liberty and Morality, (Oxford: Oxford University Press, 1963).
44. Mitchell writes that "the two protagonists, Lord Devlin himself and Professor H. L. A. Hart, have shown a degree of sustained passion and clarity of argument sufficient to cleanse the term 'academic' from any taint of triviality or irrelevance." Supra note 40, p. 1.
47. [1961] 2 All E.R. 446.
48. PP. 245-251 (only the judgment of Viscount Simonds is reprinted).
example, surrounded abortion and euthanasia. The seminal work on these subjects is Glanville Williams's *The Sanctity of Life and the Criminal Law,* published in the same year as the Wolfenden Report. This book was the harbinger of a host of writing. Most recently, the focus of jurisprudential activity has been the issue of civil disobedience; this development is a consequence of civil unrest and lawbreaking (particularly avoidance of the draft) arising in the United States out of that country's military involvement in Indo-China, although it was foreshadowed by literature of the civil rights movement. Writing on civil disobedience has proliferated, most of it


51. There is, of course, a great classical literature of civil disobedience. Consider, for example, Henry David Thoreau, *Civil Disobedience,* (Boston: Houghton Mifflin, 1957) (first published in 1849); the writings of Tolstoy (see Tolstoy's *Writings on Civil Disobedience and Non-Violence,* (New York: Signet Books, 1967)); and the writings of Gandhi (see M. K. Gandhi, *Non-Violent Resistance,* (New York: Schocken, 1961)).

52. For example, Martin Luther King, Jr., *Why We Can't Wait,* (New York: Signet Books, 1964).

coming from the pens of philosophers. To give some indication of the style of argument, I shall briefly analyse some key points made by Professor Carl Cohen in *Civil Disobedience: Conscience, Tactics, and the Law*.54

Cohen defines civil disobedience as “an act of protest, deliberately unlawful, conscientiously and publicly performed.”55 He says that “it follows from the nature of an act of civil disobedience that it cannot be given a legal justification.”56 What the civil disobedient must do is “give extra-legal reasons for breaking the law, and he must show that these non-legal considerations override his obligation to obey the law.”57 Possible extra-legal reasons include appeal to a divine or natural law whose authority is supreme,58 and appeal to the principles of utilitarianism (the protester argues “that his particular disobedience... is likely to lead in the long run to a better or more just society than would his compliance...”). Cohen favours the utilitarian justification; of the “higher-law” approach he says that “there may be difficulties in knowing what the law of God commands...”59 Cohen considers seven possible arguments against civil disobedience. Three of the seven are particularly compelling. The Third Argument is that “every attempt to justify civil disobedience must fail, because all such efforts depend, at some point, upon a fundamental premise that is false — the premise that every man is entitled to decide for himself which laws he is to obey.”60 To this argument Cohen replies that it “involves a misconception of the character of the moral life entirely, giving to the state authority a role in human life far greater than it deserves.”61 The Fourth Argument is

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59. *Ibid.*, p. 120.
that "an effective system of laws... is possible only when the authority of those law is not readily overthrown by appeal to some principles outside the legal system."\textsuperscript{63} Cohen voices a number of objections to this argument: the most cogent is simply that "historical evidence does not support the claim that appeal to some higher law leads to chaos."\textsuperscript{64} The Seventh Argument, perhaps the most convincing, is that the civil disobedient "applies a form of pressure illegitimate in the political arena, thereby vitiating (to the extent he is effective) the principle of majority rule. He creates, in effect, a state of war between himself and his community, forcing the community to respond similarly, subverting and rendering inapplicable the democratic process..."\textsuperscript{65} To this, Cohen weakly replies that the premise is unsound; it is just not true that disobedience of some laws subverts the entire system of government.

The most interesting feature of Cohen's book is the scattering throughout the text of nineteen descriptions of acts of civil disobedience (each description is called a "case"). The "cases" range from the burning of draft records by the "Catonsville Nine"\textsuperscript{66} to flag-desecration.\textsuperscript{67} All but four describe acts protesting American military involvement in Vietnam. It is clearly these and similar examples of civil disobedience which are of first concern to Cohen; like Hart and Devlin, Cohen seeks to illuminate a contemporary political problem, and only incidentally provides a general exegesis. Yet the great virtue of Cohen's work is that it is so susceptible to generalization; he provides by way of example answers to fundamental jurisprudential questions — "Does a citizen have a moral obligation to obey the law? Are there any limits to the extent or force of his obligation? Are there circumstances in which he is relieved of any duty of obedience?"\textsuperscript{68} Work such as that done by Devlin, Hart and Cohen sits mid-way on the

\textsuperscript{63} Ibid., p. 146.
\textsuperscript{64} Ibid.,
\textsuperscript{65} Ibid., p. 168.
\textsuperscript{66} Case 6, Ibid., p. 54.
\textsuperscript{67} Case 18, Ibid., p. 185.
jurisprudential spectrum, anchored in reality, yet intelligently philosophical, able perhaps to "cleanse the term 'academic' from any taint of triviality or irrelevance." 69

III. Conclusion

Jurimetrics and jurisprudence are strange bedfellows. Loevinger has written: "Jurisprudence is primarily an undertaking of rationalism; jurimetrics is an effort to utilize the methods of science in the field of law. The conclusions of jurisprudence are merely debatable; the conclusions of jurimetrics are testable. Jurisprudence cogitates essence and ends and values. Jurimetrics investigates methods of inquiry." 70 Despite the differences, it makes sense to discuss jurimetrics and jurisprudence together at this stage in the evolution of legal study. Each offers opportunities to consider law from a new and fruitful perspective, although in some instances, as I have attempted to indicate, those opportunities can be exaggerated, and modesty and caution must be the watchwords.

Is what is apparently innovative really new? In sum, jurimetrics should cause little concern to the average lawyer. Computerized retrieval may go some way towards solving some of the practical problems of legal research, but the cure may be worse then the disease. Quantitative methods, although attractive and useful in some respects, seem merely to be a technique reflecting a well-established and long-understood view of the legal process. Finally, use of modern logic in legal analysis, although promising much, remains too undeveloped to warrant serious attention by any but the dedicated researcher.

What I have termed "a new jurisprudence" is of greater importance. Application of philosophical methods to "public affairs" produces the prospect of increasing both the lawyer's understanding of his art and the community's respect for the law. It is time, if not to re-think the old categories, at least to bring them to the service of our restless age. Law has always been among the most conservative professions. But mindless conservatism must be abandoned, and opportunities seized before they slip away.

69. Supra note 44.