Cook, Oliphant and Yntema: The Scientific Wing of American Legal Realism

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For many years I have been asking myself the question: In what way or ways is it possible to study law scientifically? This has, naturally, led to an examination both into the nature of scientific knowledge, more especially in those fields in which scientific study has won its greatest successes—such as physics, chemistry, astronomy—and into the possibilities of developing similar bodies of knowledge in the field of what are commonly called the social sciences.

W. W. Cook.1

Walter Wheeler Cook, Herman Oliphant, and Hessel Yntema formed a distinctly homogeneous trio among the widely divergent band of legal scholars who, whether by design or repute, constituted the American Legal Realist movement. The three men all began their academic careers in disciplines other than law—Cook as a mathematician and physicist; Oliphant as a Professor of Language; and Yntema as a Political Scientist.2 As colleagues at Columbia Law School, they played a crucial role in the cultivation of the searching introspection which characterized that institution in the second decade of the twentieth century and, although Cook left Columbia in 1922, the other members of the trio remained to figure prominently in the momentous discussions on curricular reform which were undertaken by the Faculty of Law between 1926 and

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2. From 1894-95, Cook was an Assistant in Mathematics at Columbia University; between 1895 and 1897, he was John Tyndall Fellow in Physics pursuing his studies in Germany (Jena, Leipzig and Berlin). Upon his return to the United States he continued as an Assistant in Mathematics until 1900. In 1901 he was awarded the LL.M. degree by Columbia. Oliphant was a Professor of Language at Marion College (Indiana) for three years before he was awarded the degree of J.D. from the
The period of closest co-operation between the three scholars, however, was that between 1928 and 1933 when they joined forces for the launching of the ill-fated Institute of Law at Johns Hopkins.

The most tenacious bond between the trio was that forged by their unswerving commitment to the goal of developing a scientific approach to the study of law and legal institutions. Furthermore, they were all firmly convinced that such a goal could only be secured by the establishment of a "community of scholars" dedicated to research and unconcerned with practical training for the profession of law. As Cook put it in his famous article, Scientific Method and the Law (1927):

The time is ripe for the establishment of such a school. Its primary purpose would be the non-professional study of law, in order that the function of law may be more clearly understood, its limitations appreciated, its results evaluated and its future development kept more nearly in touch with the complexities of modern life . . . . the aim of the school would be not the production of practitioners but the development of the scientific study of law. All else would be incidental.

The premature demise of the Johns Hopkins Institute effectively robbed the three men of the chance to develop the full potential of such a "community of scholars"; nevertheless, the scientific orientation so assiduously maintained in their jurisprudential endeavours renders their work a formidable landmark in the growth of modern jurisprudence.

University of Chicago in 1914. Yntema was an Instructor in Political Science at the University of Michigan from 1917-1920.


4. (1927), 13 A.B.A.J. 303 at 309. It is interesting to note that, in Oliphant's summary, id., it was argued that Columbia University should establish such a research center within the Faculty of Law itself. This center together with the "training school" would be kept "sufficiently separated to avoid the danger of either unduly dominating or interfering with the work of the other," Id. at 33

1. **Prelude: The Genesis of the Scientific Approach.**

The note of the present epoch is that so many complexities have developed regarding material, space, time, and energy, that the simple security of the old orthodox assumptions have vanished .... The eighteenth century opened with the quiet confidence that at last nonsense had been got rid of. To-day we are at the opposite pole of thought. Heaven knows what seeming nonsense may not to-morrow be demonstrated truth.

Alfred North Whitehead [1925].

Natural scientists of Cook's generation experienced a revolutionary change in the way in which they viewed the universe. By the turn of the century, they had witnessed the disintegration of the prevailing paradigms of physical science before the merciless onslaught of sweeping new discoveries in the disciplines of physics, chemistry, and astronomy. According to Cook, the discovery of non-Euclidean geometries "led to a complete re-examination of the nature of mathematical reasoning and its relation to formal logic" while other developments which fanned the flame of scientific revolution were

.... the work of Darwin in showing that species and genera are not fixed, objective entities; the discovery of vast bodies of new knowledge in physics and chemistry, such as X-rays, radium, radioactivity, the phenomena which led to the formulation by Einstein and others of the theories of relativity, the development by Planck of the quantum theory, the studies on the constitution of the atom, the new wave mechanics ...6

The inevitable result of such dramatic discoveries was a critical change in the world view of physical science. As Thomas Kuhn has demonstrated,

.... at times of revolution, when the normal-scientific tradition changes, the scientist's perception of his environment must be re-educated — in some familiar situations he must learn to see a new gestalt.7

It was the cardinal thesis of Cook's writings that this "process of re-education" must be extended to the dimly lit halls of

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6. *Supra*, note 1 at 28-29
jurisprudence; if theories about law are to have any utility whatsoever, observers of the legal process must unequivocally embrace the change in world view already accepted by their counterparts in the natural sciences. In his pursuit of this goal, Cook was wholeheartedly supported by Oliphant and Yntema.

The most noteworthy episode in Cook's campaign for a fresh start in jurisprudential thinking was an address delivered to the Johns Hopkins University in 1927. This address was subsequently published as Scientific Method and the Law and, although the original theme was the subject of many subsequent variations, the work remains a basic text for the scientific wing of the realist movement.

Cook contended that the chief component of the modern scientific approach was a point of view which he characterized as "relativity":

By this is not meant the specific theories of Einstein and others, commonly associated with that term, but a point of view which, whatever may happen to specific doctrines, seems destined to remain as a permanent achievement in human thought.

Cook suggested that there were three significant components in the point of view described:

First and foremost, we find a frank and clear recognition of the extent to which all our thinking is based upon underlying postulates of which frequently we are entirely unaware but which color all our mental processes and in particular often give for those generalizations which we are in the habit of calling "natural laws" the form which they assume.

8. (1927), 13 A.B.A.J. 303
9. Id. at 306. See also the statement in a significant work published in the same year; Bridgman, The Logic of Modern Physics (1927):

Relativity in the general sense is the merest truism if the operational definition of concept is accepted, for experience is described in terms of concepts, and, since our concepts are constructed of operations, all our knowledge must inescapably be relative to the operations selected. But knowledge is also relative in a narrow sense, as when we saw there is no such thing as absolute rest (or motion) or absolute size, but rest and size are relative terms. Conclusions of this kind are involved in the specific character of the operations in terms of which rest or size are defined. An examination of the operations by which we determine whether a body is at rest or in motion shows that the operations are relative operations: rest or motion is determined with respect to some other body selected as the standard. [25-26]

Bridgman's work became a staple source for Cook's later discussions of scientific method.
10. Supra, note 8 at 306
Since these postulates influence the whole scientific enterprise — from observation to theory construction — Cook urged that they be subjected to a continuing regime of close scrutiny with a view to ascertaining their utility in the task of understanding empirical reality.

The second element associated with the concept of relativity is an emphatic rejection of the whimsical notion that the universe is explicable in terms of a few relatively simple laws of mechanics. Cook stressed that he did not mean to argue that the classical laws of mechanics are obsolete but rather that their utility is limited to a certain range of worldly phenomena; beyond that range they have no intelligible application. No doubt a major catalyst in the acceptance of this viewpoint was the inability of traditional physics to cope with the development of quantum theory and the subsequent principle of indeterminacy in quantum mechanics. In any event, the developments shattered the belief that a simple mechanical model held the key to a complete understanding of the universe.

The final element which Cook isolated in his discussion of the concept of relativity was a healthy skepticism towards the processes of deductive and inductive logic. With respect to the former, Cook argued that misplaced faith in the efficacy of the syllogism as a means of problem-solving stems from a failure to appreciate the essential nature of the process of classification. In the wake of the explosive discoveries of Charles Darwin, scientists can no longer avoid the significance of the fact that classifications represent not a reflection of the objective order of nature but rather a subjective convenience in the processing of information:

Classification thus disappears as the statement of objectively valid and final truths about the world, and re-appears as the adoption of working hypotheses, mental devices to which we resort in order to deal more effectively with our experiences. Classification is thus to be tested by its results and to be altered if those results are not satisfactory.

When a scientist is confronted with a novel phenomenon, he cannot deal with it on the basis that it is a new member of an already existing class. On the contrary, he must consider whether the

11. For a contemporary assessment of the quantum theory, see Whitehead, supra, note 5 at ch. VIII. See also Hans Reichenbach, The Rise of Scientific Philosophy (Berkeley: University of California Press, 1968) at 170ff.
12. See Reichenbach, id., at ch. 12
13. Supra, note 8 at 306
differences he notes between the properties of the phenomenon and the properties of the members of the already existing class lie within an acceptable range of variation so that the class can be safely expanded; alternatively, he may have to question the whole basis of his present structure of classification and reject or modify it so as to accommodate the information learned as a result of the new experience. It is only after this process has been undertaken that the scientist may frame his syllogism; consequently, Cook joins with John Dewey in asserting that the syllogism amounts to a method of stating the results of our thinking rather than the method of inquiry by which these results are actually reached:14

"Universals", general rules, "natural laws", thus appear as working hypotheses or postulates; general ways of stating that for a given purpose we have in the past found by experience that it worked satisfactorily to group together a number of situations, no two of which are exactly alike, the validity of the grouping depending on whether it leads to desired results.15

In the light of these observations, Cook demonstrated that modern man must jettison the futile notion that there exist a few fundamental and immutable principles from which can be deduced all the other "laws of nature". Nevertheless, he was careful to stress that deductive logic was still an immensely valuable tool in the scientist's armoury; for example, Cook pointed out that the pattern of future experimentation may well be dictated by deduction in the sense that such logic is necessary to the working out of the consequences of rival hypotheses.16

In addition to his discussion of the limits of deductive logic, Cook called into question the perhaps excessive reliance placed on inductive logic since the seventeenth century. Indeed he echoed the warning expressed by Whitehead some two years earlier:

I do not hold Induction to be in its essence the derivation of

14. Dewey, Logical Method and Law (1924), 10 Cornell L.Q. 17 at 22. Note that Dewey (and later Cook himself) use "Logic" in a special sense: Dewey defined logical theory as an account of the procedures followed in reaching a decision based on intelligent inquiry. Deductive logic or the syllogism is but one of a number of different types of logic in use.  
15. Supra, note 8 at 306  
16. This view was most forcefully argued by a leading contemporary philosopher of science — Morris R. Cohen. [Later to become one of the prime critics of Cook, Oliphant and (more particularly), Yntema]. See his discussion of the issue in: The Place of Logic in the Law (1916), 29 Harv. L. Rev. 622; Reason and Nature (New York, 1931) at 115-125; Law and Scientific Method in Law and the Social Order (1933) at 184
general laws. It is the divination of some characteristics of a particular future from the known characteristics of a particular past. The wider assumption of general laws holding for all cognizable occasions appears a very unsafe addendum to attach to this limited knowledge . . . . Inductive reasoning proceeds from the particular occasion to the particular community of occasions, and from the particular community to relations between particular occasions within that community. Until we have taken into account other scientific concepts it is impossible to carry the discussion of induction further than this preliminary conclusion.¹⁷

In other words, inductive logic must be viewed as but one (albeit a major) tool in the scientist’s pursuit of enlightenment.¹⁸

Writing some forty years later than Cook, Hans Reichenbach has succinctly summarized the effect of the scientific revolution which was the subject of Scientific Method and the Law:

Gone is the ideal of a universe whose course follows strict rules, a predetermined cosmos that unwinds itself like an unwinding clock. Gone is the ideal of the scientist who knows the absolute truth. The happenings of nature are like rolling dice rather than like revolving stars; they are controlled by probability laws, not by causality, and the scientist resembles a gambler more than a prophet.¹⁹

It was out of this hotbed of intellectual reorientation that the scientific wing of legal realism was born and it is against this background that the work of Cook, Oliphant, and Yntema must be judged.²⁰

II. The Establishment of Observational Standpoint.

What a man sees depends both upon what he looks at and also upon what his previous visual-conceptual experience has taught him to see. In the absence of such training there can only be, in William James’ phrase, “a bloomin’ buzzin’ confusion”.²¹

Neither Cook, Oliphant, nor Yntema had ever engaged in the practice of law; hence it is scarcely surprising that they devoted considerable attention to the crucial issue of observational

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¹⁷. Supra, note 5 at 44-45
¹⁸. See Cohen, Law and Scientific Method, supra, note 16 at 190
¹⁹. Reichenbach, supra, note 11 at 248-49
²⁰. Twining uses the term “scientists” to refer to that group of Columbia scholars consisting of Oliphant, Moore, Cook, Douglas, Yntema, and Marshall; Twining, supra, note 3 at 54
²¹. Kuhn, supra, note 7 at 113
standpoint. A common theme running through their writings is the call for a "more substantial basis of descriptive observation"; in order to attain this goal, they forcefully emphasized the need to maintain the gulf between the enterprise of science, on the one hand, and the normative art of the judge or the counselling and advocacy undertaken by practising lawyers on the other.\textsuperscript{23} Cook, for example, argued that legal phenomena may be studied from any of at least four standpoints; that of the practising lawyer, the judge, the legal historian, and that of the "legal investigator" who seeks to know "not only what the officials in question have done and are doing, but whether what they do produces the desired effects upon human conduct." Typical of the group's assertion of freedom from the "professional prejudice" is Yntema's emphatic rejection of the narrow standpoint implicit in Holmes' prediction theory:

... the definition of legal study as being directed to "the prediction of the incidence of the public force through the instrumentality of the courts", is, as it stands, perhaps appropriate to professional legal study; but for legal science it needs to be defined in terms of the total social situation, including and beyond the profession. No more, for science, can the basis of prediction be limited to the reports or even the official records. So too, disinterest in foreign legal systems is, because life is short, understandable in professional legal study but not in the university of science.\textsuperscript{25}

\textsuperscript{22} Yntema, \textit{The Purview of Research in the Administration of Justice} (1931), 16 Ia. L. Rev. 337 at 345
\textsuperscript{23} Yntema and Jaffin, \textit{Preliminary Analysis of Concurrent Jurisdiction} (1931), 79 U. Pa. L. Rev. 869 at 891; Yntema, \textit{The Implications of Legal Science} (1933), 10 N.Y.U. L.Q. Rev. 279 at 305-308:

... A distinction is set up between legal science on the one hand and legal art, legal religion, on the other, because to give to the term legal science a more comprehensive sense is to deprive it of useful significance, because it is vital to give legal science freedom from the limitations of professional technique and the literary and speculative tradition of jurisprudence.\textsuperscript{[307]}. See also Yntema, \textit{American Legal Realism in Retrospect} (1960), 14 Vand. L. Rev. 317 at esp. 324-325, where it is argued that this drawing of a distinction between different viewpoints was all that was intended by the controversial divorce of the "is" and the "ought". See also Yntema, \textit{Jurisprudence on Parade} (1941), 39 Mich. L. Rev. 1154 at 1165. Oliphant's approach to observational standpoint was largely tacit in his work [except for his advocacy of reform in legal education]. See his \textit{Summary, supra}, note 3, where the "community of scholars" approach is championed.

\textsuperscript{24} Cook, \textit{A Scientific Approach to the Study of Law}, in Essays in Honor of W. W. Willoughby (1937) 201 at 203-204
\textsuperscript{25} Yntema, \textit{Mr. Justice Holmes' View of Legal Science} (1931), 40 Yale L. J. 696 at 702-703. Note Cook's use of the theory in relation to the practitioner's
However, the three scholars pressed the case for the establishment of an impartial observational standpoint far beyond the conventional distinction between impartial observation and professional study; they went so far as to argue that scientific enlightenment may only be attained within the cloistered calm of the university or some other independent research institute. Even with respect to university research, the trio were adamant in their call for research scholars to be insulated from the conventional activities of the professional Law School. Inevitably, this sang froid earned the three scholars the distrust of their teaching colleagues; however, they evidently believed the reasons for such an approach were compelling.

For Yntema, the need for an institute of "pure" research was grounded in the fear that legal scientists would be susceptible to demands that their work be immediately relevant to practical projects of reform. Yntema's concern was that such demands would encourage scholars to sidestep the painstaking process of building basic theory and method. In his view, the immediate fruits gained by such a course of action would be more than cancelled out by the postponement of the task of building legal science on sure foundations:

(One) suggestion of counsel is that the purpose of the study of the administration of justice is reform. Here again, the connotations are vital. These are that research in the practical operation of the law is fundamentally posited upon the desire to improve the administration of justice by showing how its defects can be eliminated. More crudely stated, the implication is that the criterion of research in this field will, therefore, be the number and importance of the specific legislative or judicial reforms which it prepares... yet a moment's reflection will suffice to suggest that this counsel is premature as a basis of legal research. It emphasizes the incidental; it asks research to produce applications with or without relation to the summation of past or possible experience; worst of all, it will require research to take a


27. Twining suggests the "aggressiveness" of Cook and Oliphant in promoting their point of view was resented by other members of the faculty. *Supra*, note 3 at 45. Cook is described as having had "an abrasive character".
premature position on proposed reform. This point of view can give us no faith that it will reach to the roots even of the evil it proposes to cure.  

Cook, on the other hand, believed that provision must be made for the pursuit of a pure science about law because the legal investigator who approaches his task from the viewpoint of the social engineer will never question the underlying postulates of his discipline. As a result, legal science may be the victim of uncorrected fallacies:

. . . . so long as we adopt in the field of legal research solely or even mainly the point of view of the engineer, who is bent on achieving, and that rather soon, so-called "practical results" in the way of reform and continue to ignore what is believed to be the more fundamental and important approach, that of "pure" science, we shall fail to achieve the "really practical" in the field of legal research . . . . One reason for this is not far to seek; unless we do this, we shall almost inevitably continue to operate with the set of postulates underlying the whole thought of the period, postulates which may, for all we know, be misdirecting our attention and leading us to ignore what may turn out to be the points of attack which in the long run will lead to really valuable "pay dirt".  

Cook maintained that traditional jurisprudence was continuing to operate with the postulates long since rejected by natural science. In particular,

(1) It is relatively easy to formulate clearly expressed propositions, i.e. propositions expressed in terms which are free from ambiguity when applied to the external world. (2) It is relatively easy to formulate propositions which are not only clearly expressed but also actually do conform to experience . . . . [and (3)] . . . . that in any given field there are a small number of relatively simple and far reaching "principles" from which all the more specific "rules" can be derived by logic.  

By pursuing the task of observation under the heavy weight of such out-moded postulates, legal scientists were handicapped in the performance of all intellectual tasks; one task which was particularly affected was the collection of "facts":

. . . . in making a 'statement of fact' about the 'given situation' (series of events), so as to state 'what it is', I have in every case necessarily selected certain aspects, thereby neglecting all the

28. Supra, note 22 at 346-47
29. Supra, note 24 at 219
30. Id. at 215-216
other possible aspects which I might have observed, and then have interpreted the selected ‘data’ so as to bring them under some category. . . . what our observer ‘abstracts’ from the ‘given’ will depend upon his past experience and education as well as upon the purpose he has in view at the time. As his fund of experience widens and also as his purpose changes he will select different combinations of aspects and relate them in different ways. 31

It is interesting to note that while the group were most concerned with the type of ‘pure’ research which was intended for the Johns Hopkins Institute, they nevertheless were keen to alter the observational standpoint of law students in the professional schools. 32 At the heart of the program was a call for the entire reorganization of the traditional law curriculum on functional lines. Oliphant argued that the present structure of courses was out of touch with ‘real life’ and that this deficiency coupled with the intellectual handicap imposed by subservience to an out-moded conceptual apparatus caused students to degenerate into ‘intellectual infants with toothless gums too soft except for munching elastic generalities with sophomorphic serenity’ . 33 Oliphant, and to a lesser extent Yntema, played a crucial role in the attempt to achieve such a far-reaching re-organization at Columbia. For various reasons, the assault on the citadel was only very partially successful, with both Oliphant and Yntema moving to Johns Hopkins in 1928. 34

III. The Conception of Science

At the present time the enemies of the scientific attitude are

32. See, e.g., Cook’s course upon Legal Method and Analysis at Yale Law School; discussed in Modern Movements in Legal Education (1929), 6 Am. L. Sch. Rev. 402 at 409ff.
34. See generally Currie, supra, note 3 at Part III passim; Twining, supra, note 3 at ch. 3. One of the few permanent successes was the work of Oliphant in developing a reorganized course on trade regulation. This was begun in 1923 and was based on his casebook, Cases on Trade Regulation (1923).
numerous and organized . . . In particular, science is not welcomed but rather opposed when it "invades" . . . the field now pre-empted by religion, morals, and political and economic institutions.

John Dewey.35

Significantly, neither Cook, Oliphant, nor Yntema were affected by the institutional approach which had been so crucial in the development of many of their realist colleagues;36 on the contrary, their conception of science was shaped by the austere model of the natural sciences.37 Cook's background in mathematics and physics enabled him to mediate between these disciplines and jurisprudence with unique authority.

As we have seen, his major contribution lies in his detailed exposition of the structure of scientific thinking as it emerged from the revolution in world view experienced at the turn of the century. His treatment of this topic was by no means original; it was essentially a succinct synthesis of the works of such philosophers of science as Bridgman, Pearson, Ritchie, Bertrand Russell, and Whitehead.38 Furthermore, the vital bridgehead between such metascience and Cook's approach towards scientific thinking about law was constructed almost exclusively upon the philosophy of John Dewey.39

Central to Cook's conception of science was Dewey's thesis that "the same logic of inquiry used in physics and chemistry will yield useful results if applied in all fields in which intelligent inquiry can be carried on".40 This fundamental precept became the rallying

36. The effect of the institutional approach is clearly visible in the work of Arnold, Llewellyn, Moore, Hamilton, and Douglas.
37. For brief summaries of their approach, see H. G. Reuschlein, Jurisprudence-Its American Prophets (Indianapolis: Bobbs-Merrill, 1951) at 230-33 and 275-287
38. Some of the major sources of Cook's approach are acknowledged in Modern Movements in Legal Education, supra, note 32 at 410
40. My Philosophy of Law, id. at 32-52. See Dewey, supra, note 35 at 29-30:

... the scientific method is not confined to those who are called scientists.
The body of knowledge and ideas which is the product of the work of the latter
point for a significant group of scientists who participated in what became known as the unity of science movement. The dominant approach in this movement was characterized by Charles Morris as "scientific empiricism." Under the umbrella of this approach mathematics and 'logic' on the one hand, and "experimentation", on the other, united together in a single method of obtaining knowledge about nature:

The important result was a double shift from a metaphysical to a methodological rationalism, and from a loose-joined empiricism to an empiricism which utilized the techniques and the form of mathematics. Rationalism and empiricism in this way ceased to be rival methods for knowing nature and became complementary components of experimental science with its one observational-hypothetical-deductive-experimental method. The emphasis upon experimentation as against mere observation meant the breakdown of the radical opposition of theory and practice, for not only is experimentation itself a kind of practice, but it is of such a kind as to open up the possibility of a novel and systematic control of many kinds of natural processes.

In Morris' view, this rapprochement of the two rival methods of obtaining knowledge was sealed by the development of pragmatism. The peculiar function of the pragmatic approach in this context was "to make explicit the instrumental significance of ideas in general and of scientific results and procedure in particular". Naturally, John Dewey was a major protagonist in this process and his work was a vital stimulus to the unity of science movement and its project of establishing an International Encyclopedia of Unified Science.

Unfortunately, while Cook rendered a lucid account of the basis of scientific empiricism he failed to progress from the ethereal

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42. Morris, *id.* at 64

43. *Id.* at 67

44. The original conception of the Encyclopedia was that of Professor Otto Neurath. However, his death and the advent of world war II prevented the project from advancing beyond the publication of but one volume — *The Foundations of the Unity of Science*.
realms of metascience to the more exacting task of developing specific methods of research for the study of legal institutions. It is true that there were pious calls for the establishment of specific experiments in the programme of the Johns Hopkins Institute of Law, but such statements were mere declarations of faith rather than a genuine attempt to harness the natural science model to the service of jurisprudence. Ironically, Cook's only sustained use of scientific empiricism was in the traditional jurisprudential area of the analysis of judicial opinions and even here he was more concerned with the destruction of traditional modes of thought than with the task of constructing alternative bases for juristic science. Furthermore, although Cook repeatedly asserted that scientific empiricism was a suitable foundation for scientific inquiry about law, his work is completely devoid of any attempt to construct theory of even the most rudimentary nature. While lauding the virtues of the experimental approach he inexplicably confined his efforts to the peaceful domain of appellate case-law. A parallel tale of lost opportunities is manifested by Cook's mysterious reluctance to utilize the resources of the Institute of Law for the advancement of the programme outlined in *Scientific Method and the Law*.

Standing in marked contrast with his mentor's abstract approach to scientific knowledge was Hessel Yntema's avowedly practical conception of science. In his view,

As process, science is verification; as product, science consists of truth, the statement of what is observed. To verify is to show consistency; in the first instance, of a statement with the experience it denotes; in the second instance, with analogous statements of experience ... Thus, whether regarded as process or as product, science principally denotes two things — accuracy and economy in the formulation of information. Accuracy involves emphasis upon detail, the development of standards of measurement, of techniques and instruments of controlled observation; economy imports the invention of type-symbols, of formulae, and the selection of the mode of representation which best enables the human mind to comprehend and utilize the multitudes of detail. In sum, the hallmark of scientific study is that it looks to the formulation of experience or, conversely stated to the experimental verification of theory. Scientific truth is neither inchoate raw fact nor suppositious hypothesis, but knowledge which is true because its accuracy and

45. See *Johns Hopkins University Circular: The Institute for the Study of Law* (1929-30), at 20-21 (Statement by the Faculty)
economy has been verified both in theory and in fact.  

Yntema argued that the scientific verification of theories about the legal process may be attempted either by observation under experimentally controlled conditions or by the observation and correlation of multiple phenomena under varying conditions. However, since the opportunities for controlled experiments in this area are of necessity severely limited, he suggested that the future of legal science lay in the undertaking of comparative and statistical studies; significantly, the programme of the Johns Hopkins Institute was devised on the basis of this fundamental postulate.

Yntema was convinced that the early thirties were a "pre-statistical age" in which the depth of ignorance regarding the actual functioning of legal processes was so great as to warrant a policy favouring a total investment of resources in the gathering of "basic facts" and the improvement of statistical techniques; it was only after such an investment that jurisprudence might attempt statistical correlation and the first tentative groping towards scientific theory:

. . . . without more effective methods of organizing and manipulating facts and without a usable and understood analysis of basic factors, the effort to understand the actual conditions of justice will scarce avoid remaining incoherent and obscure.

Tragically, the yawning gulf between intention and deed must condition any assessment of the tangible achievements of the Institute in this respect. A glance at the history of the Institute reveals that the quest for a science about law began and fizzled out with a mindless enthusiasm for the amassing of facts without reference to even the most rudimentary theory; specific techniques for the study of legal processes were never developed and the promise of comparative research was never fulfilled.

Writing a decade later, Yntema acknowledged his mistake in staking the future of legal science on quantitative methods alone.

. . . . statistical studies have been projected on the supposition that, given a sufficient base, the phenomena of litigation will reflect significant trends or stresses in the social structure or function, as well as permit the formulation of regularities within the adjudicative process itself. But such studies are perforce of the shotgun type; and, when a precise examination of individual

46. The Implications of Legal Science, supra, note 23 at 300-301
47. See, e.g., Johns Hopkins University Circular: The Institute for the Study of Law (1929-30), (Statement by Faculty)
48. Supra, note 22 at 356
conflicts that have festered to the threshold of litigation is to be made, there is often a case for qualitative rather than quantitative modes of investigation.

In other words, it would seem that the election of a quantitative method influences the choice of the matter to be examined and the problem to be resolved. To use statistics, there must be observable repetitious events; and, what is not always understood, the terms in which such events may be analysed must be relatively simple. If the phenomena inquired into are unusual or if they are not resolved into a limited number of factors, quantitative formulation is either of minimal significance or cumbrous.

Moreover, economy in the utilization of research energies here too has bearing.

. . . . All this counsels that, while it is most necessary to secure precise, quantitative knowledge where it is feasible and appropriate, it is also expedient to employ more expeditious, if less exact, techniques of objective inquiry where they are indicated. To invoke once more our medical simile, the structure of the heart is not distinctively a quantitative problem. 49

Furthermore, writing in 1960, Yntema stated his belief that one of legal realism's major failures was in its blindness to the need for comparative research and its inability to grasp the fact that comparison was an essential method of all science. 50 It is true that Yntema himself was one of the few scholars to realize this truth at the time 51 but he must bear a certain share of the blame for not steering the Institute of Law or his other realist colleagues in this crucial direction. Nevertheless, it is to his eternal credit that he did leave the comfortable armchair of speculation and actually attempted to apply scientific methods to legal phenomena and that

49. "Law and Learning Theory" Through the Looking Glass of Legal Theory (1944), 53 Yale L. J. 338 at 344-45
50. American Legal Realism in Retrospect, supra, note 23 at 328-29:

There was little systematic study of other legal systems, even of those in the British orbit, such as developed on the Continent of Europe, and still less a general understanding of the basic importance of comparison as an essential method of all science, including that of law. To this legal realism in the United States was relatively blind, not merely because it accentuated the study of law in terms of current local practice but perhaps also because it was affected by the notion . . . that such study should not be characterized as scientific since the phenomena to be considered are too nonpredictable.

See also Yntema's Comparative Legal Research — Some Remarks on Looking out of the Cave (1956), 54 Mich. L. Rev. 899
51. E.g., Yntema, Roman Law as the Basis of Comparative Law in 2 Law: A Century of Progress (1937) at 346 and esp. 360-364. See also the suggestions contained in the programme of the Institute of Law.
he was one of the few scholars of his generation to recognize the significance of Underhill Moore's application of a natural science model in the furtherance of modern jurisprudence.  

Like Yntema, Herman Oliphant owed much to Cook's analysis of scientific thinking but his own conception of science was a good deal less complex:

... a method is scientific if it impersonalizes the observation it seeks to the degree required by the particular purpose for which the results of that observation are to be used. In this view of the matter, two aspects of scientific methods or procedures are meant to be stressed: the impersonality of the result and the relativity of the necessary degree of such impersonality.

Oliphant's approach represented an attempt to harness the natural science model to the jurisprudential enterprise without tying it to the exacting demands of such precise disciplines as physics and chemistry. Indeed, both Oliphant and Yntema were keenly sensitive to the criticism levelled by those who proclaimed the ultimate futility of the quest for a legal science on the ground that it could never attain the precision, accuracy, and predictability of the established physical sciences. Oliphant quickly recognized that the scope for controlled experimentation in this area was severely limited and he made the telling point that a science about law may yet remain genuinely "scientific" even though it is largely observational rather than experimental in basic character. After all, the prestigious disciplines of astronomy and geology were predominantly observational and the self-appointed guardians of scientific purity had not impugned their acknowledged scientific virtue. Similarly, Oliphant demonstrated that it was ludicrously myopic to demand that a social science should always attain the same degree of exactitude as that allegedly required in physics.

52. "Law and Learning Theory" Through the Looking Glass of Legal Theory, supra, note 49 at 340:

A showing that in a limited number of observed segments of human conduct variations occur, unintentionally with the absence or presence of acts or signs designed to regulate such conduct, and that such variations can be measured and interpreted to exhibit regularities... is an indication that human conduct generally in the presence of legal regulations is subject to regular and measurable variations... It has the significance that human conduct as the object of legal regulations and the effects of such regulations on such conduct are susceptible of scientific observation and measurement.

53. Facts, Opinions, and Value-Judgments, supra, note 31 at 130-131
54. See, e.g., Yntema, The Implications of Legal Science, supra, note 23 at 283-284
Clearly, to the physicist the precise placing of decimal points may well hold the only key to the solution of important problems but to the social scientist such painstaking precision would usually be entirely superfluous. 55

Curiously enough, Oliphant was the only member of the scientist trio to develop scientific theory in relation to the legal process. For this endeavor, he adapted the teachings of experimental psychology to the study of judicial opinions. 56 However, his stimulus — response theory of decision-making was only a rather tentative application of terminology to old problems rather than a systematic attempt to understand the dynamics of decision-making. Ironically, Oliphant took his cue from Cook in frittering away the natural science model on the development of what amounted to little more than a novel method of analysing appellate case law. A parallel tale of woe may be found in Oliphant's work at the Institute of Law which is open to exactly the same criticism as that justly levelled at Yntema.

IV. The Delimitation of a Focus of Inquiry

Our case material is a gold mine for scientific work. It has not been scientifically exploited. 57

Of the three scholars, only Hessel Yntema may be said to have discussed the fashioning of an adequate focus of jurisprudential inquiry with any degree of explicitness. Like a good many others in the realist movement, Yntema was determined that legal rules should no longer hold the center stage of jurisprudential debate. In his view, the proper focus of a modern legal science was the "problem of order in human affairs":

The interest of legal science in the phenomena of human order — as to how, in the present instance, the exchange of goods is regulated, not only according to the books but in fact, as to what the agencies, procedures and rules of such regulation are and how they fit into the businesses and lives which are thus controlled, as to what are the effective devices of such regulation and what its actual effects — will give legal science sufficient coherence

55. Facts, Opinions, and Value-Judgments, supra, note 33 passim.
56. It seems that Oliphant's behavioralistic theory has certain affinities to Underhill Moore's early approach — see, Moore, Rational Basis of Legal Institutions (1923), 23 Colum. L. Rev. 609. A genuinely systematic application of such a theory did not finally materialize until Moore and Callahan published their Law and Learning Theory: A Study in Legal Control (1943), 53 Yale L. J. 9
57. Oliphant, id. at 229
without asserting for it a sterile isolation from other branches of human science.58

Yntema believed that this focus of inquiry would enable the legal scientist to cast his spotlight over the distinctively legal in the social process while guarding against the temptation to grant jurisprudence a roving commission over the whole area that may be said to constitute the subject matter of the social sciences. Sadly, it must be stated that Yntema’s brave words were never translated into action. Along with Cook and Oliphant, he contracted the realist disease of concentrating upon the activities of courts and court-connected officials to the complete exclusion of the legislative process. In an age in which legislation came to dominate the political scene, this was indeed a most curious omission. As Yntema himself was to acknowledge many years later:

There has been . . . a prodigious development of legislation as the efficient means to secure the national interest, to control the economy, and to readjust the political and social constitution as conditions change. Legislation has become the instrument of reform, and in consequence its volume and complexity has absorbed the attention of those concerned with law, indeed on this account, the positive prescriptions of the national state, and not the common sense of justice of its people, are envisaged as the law.59

Ironically, it was Walter Wheeler Cook who maintained the most narrow focus of inquiry. While he frequently referred to the need for the closer study of the behaviour of officials other than judges,60 he nevertheless confined his attention to the decisions of American appellate courts.61 This approach was no doubt an advance over the rule-oriented jurisprudence of the past but it also constituted the fundamental flaw in realist writings. Oliphant and Yntema, on the other hand, ultimately contrived a focus of inquiry which took under

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58. The Implications of Legal Science, supra, note 23 at 298-300
59. American Legal Realism in Retrospect, supra, note 23 at 325-26. Quite why this omission was perpetuated remains a mystery, particularly since Roscoe Pound had attempted to rectify it as early as 1912; see, e.g., his Legislation as a Social Function (VIII Pub. Amer. Sociological Society, 1912) at 148
60. See, e.g., Cook’s statement that the task of jurisprudence is to study the behavior of “governmental officials”. The Utility of Jurisprudence in the Solution of Legal Problems, in Lectures on Legal Topics (New York: MacMillan’s Co., 1928) at 337. See also similar statements in The Logical and Legal Bases of the Conflicts of Laws, supra, note 25 at 8, 29-30 and, supra, note 24 at 204
its panoply not only the traditional appellate fare but also the
decisions of trial courts and other officials participating in what may
be loosely termed the administration of justice; this focus is most
noticeably manifested in their surveys of Ohio and New York for
the Johns Hopkins Institute of Law. Significantly, authoritative
decision-making in other arenas was blithely ignored and, even in
their discussion of administrative decision-making, Oliphant and
Yntema were conspicuously superficial.

V. The Balance of Emphasis upon Perspectives and Operations

.... we have focused our attention too largely on the vocal
behavior of judges in deciding cases. A study with more stress on
their nonvocal behavior — i.e., what the judges actually do when
stimulated by the facts of the case before them — is the approach
indispensable to scientifically exploiting the wealth of material in
the cases.62

On first sight, the approach of Cook, Oliphant, and Yntema to the
necessity of maintaining an adequate balance of emphasis between
operations and perspectives appears to be tainted with the worst
excesses of behavioralism. Critics seized upon their vociferous calls
for a more thorough study of judicial behavior and charged them
with abandoning the essence of things legal — authoritative ideals,
principles, and rules.63 No doubt, many of these charges contain a
fair degree of truth but such criticism tends to ignore the context
within which the scientists made their controversial assertions. The
work of Cook, Oliphant, and Yntema represents a cross-roads at
which the lessons to be learned from linguistic analysis and
pragmatism (as purveyed by Dewey and Holmes) met and joined
forces in an assault on formal logic. It is in this light that the trio's
statements about legal rules and judicial opinions must be viewed.

For the realists, the jurisprudential idol which they most
assiduously attempted to destroy was the notion that judicial
decisions were rendered on the basis of logical derivation from
fundamental principles of the law. That this notion was not entirely
dummy overstuffed with straw may be demonstrated by Mortimer
Adler's contribution to a symposium on Jerome Frank's Law and

62. Oliphant, A Return to Stare Decisis, supra, note 33 at 229
63. See, e.g., Pound, Contemporary Juristic Theory (Claremont Colleges, 1940)
at 10-11; Dickinson, Legal Rules: Their Function in the Process of Decision
(1931), 79 U.Pa.L.Rev. 833 and Legal Rules: Their Application and Elaboration,
id. at 1052; Kennedy, A Review of Legal Realism (1940), 9 Fordham L. Rev. 362
In his article, Adler asserted that there was room in the halls of jurisprudence for what he termed "law in discourse". This would be a "purely formal science" like mathematics, "its subject matter is entirely propositional, its only instrumentality is formal logic"; indeed, this formal science would deal "with certainties and nothing else". Now it was precisely this assertion, that jurisprudence (or any branch of it) could conduct its activities without reference to empirical reality, which constituted the red flag to which the realists responded. Adler's view of the function of formal logic appeared to suggest that a legal science could be built around the task of achieving formal consistency between fundamental rules and principles. Realists, such as Cook and Yntema, attributed the same views to such scholars as Joseph Beale and Herbert Goodrich, whose work they submitted to devastating criticism.

In their attack on formal logic, the realists drew on the authority of Oliver Wendell Holmes rather than on Roscoe Pound's equally incisive treatment of what he termed "mechanical jurisprudence". For Holmes, legal logic meant thinking in syllogisms — the neat collaboration of major and minor premise to produce solutions to problems: as he said at the beginning of *The Common Law*,

It is something to show that the consistency of a system requires a particular result, but it is not all. The life of the law has not been logic; it has been experience. The felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even the prejudices which judges share with their fellow-men, have had a good more to do than the syllogism in determining the rules by which men should be governed. The law embodies the story of a nation's development through many centuries, and it cannot be dealt with as if it contained only the axioms and corollaries of a book of mathematics.

**notes**

64. Adler, *Legal Certainty* (1931), 31 Colum.L.Rev. 91. Note the criticism of this approach by Cook and Yntema; Cook, *Legal Logic* (1931), 31 Colum.L.Rev. 108; Yntema, *The Rational Basis of Legal Science* (1931), 31 Colum.L.Rev. 924 at 929-934
65. Adler, *id.*, at 103
In an exposition of the nature of logic (which found favor with Cook, Oliphant, and Yntema), John Dewey argued that the deductive logic referred to by Justice Holmes was but one type of logic in use. In Dewey’s view, the syllogism merely sets forth the results of thinking — “it has nothing to do with the operation of thinking”; it is a logic of exposition rather than a logic of inquiry. On the other hand, Dewey’s account of logical method represents the actual procedures used by human beings in reaching solutions to concrete problems and, as a result, logic must necessarily be complemented by empirical science:

If thought or intelligence is the means of intentional reconstruction of experience, then logic, as an account of the procedure of thought, is not purely formal . . . . If thinking is the way in which deliberate reorganization of experience is secured, then logic is such a clarified and systematized formulation of the procedures of thinking as will enable the desired reconstruction to go on more economically and efficiently . . . . Logic is based on a definite and executive supply of empirical material.

In the experimental logic Dewey favored, men do not begin thinking with premises; on the contrary, they attempt to solve problems by finding statements both of general principle and of particular fact, which are capable of serving as premises. This search necessarily involves a consideration both of consequences and of social policy. In so far as logic is relevant to modern jurisprudence the implications of Dewey’s approach are clearly far-reaching; if logic is to have further utility in this arena then it must be a “logic relative to consequences rather than to antecedents, a logic of prediction of probabilities rather than one of deduction of certainties.” Furthermore, in Dewey’s approach, the status of general principles and rules is fundamentally transformed:


71. *Logical Method and the Law*, supra, note 69 at 26
For the purposes of a logic of inquiry into probable consequences, general principles can only be tools justified by the work they do. They are means of intellectual survey, analysis, and insight into the factors of the situation to be dealt with. Like other tools they must be modified when they are applied to new conditions and new results have to be achieved.

Failure to recognize that general legal rules and principles are working hypotheses, needing to be constantly tested by the way in which they work out in application to concrete situations, explains the otherwise paradoxical fact that the slogans of the liberalism of one period often become the bulwarks of reaction in a subsequent era.\(^\text{72}\)

It was around this pragmatic interpretation of the nature of rules and principles that Cook, Yntema, and Oliphant constructed their own approach to their analysis of judicial decision-making.

However, there was one other trend of contemporary thought which exerted a not inconsiderable influence on the three scholars’ work; this was the burgeoning field of semantics and linguistic analysis. One of the most influential works of this genre was Ogden and Richards’ *The Meaning of Meaning* (1923)\(^\text{73}\) which stressed the need for the scholar to maintain a skeptical attitude towards language. In particular, the authors focussed their attention on the relationship between verbal symbols and their empirical referents and on the dangers caused by the emotive power of many words frequently used in jurisprudential inquiry — such as “liberty” or “right”. The thrust of works of this nature was to exorcise the verbal magic associated with formal logic and for this reason their message was avidly accepted by the legal realists; as Ogden and Richards’ pointed out,

The extent to which primitive attitudes towards words are still exploited is fully revealed only when the achievements of some cynical rhetorician are accorded the limelight of the law courts. . . . . . . the ablest logicians are precisely those who are led to evolve the most fantastic systems by the aid of their verbal technique. The modern logician may, in time to come, be regarded as the true mystic, when the rational basis of the world in which he believes is scientifically examined.\(^\text{74}\)

\(^{72}\) Id. at 26

\(^{73}\) For the influence of the book on legal realism, see Patterson, *Jurisprudence: Men and Ideas of the Law* (Brooklyn: Foundation Press, 1953) at 26ff. and 546. Apart from Cook, Oliphant, and Yntema, two other realists clearly influenced by the work were Thurman Arnold and Jerome Frank.

\(^{74}\) C. K. Ogden and I. A. Richards, *The Meaning of Meaning* (8th ed. New York:
These trends in thought are most clearly manifested in the work of Walter Wheeler Cook. He embraced Dewey's approach to logic enthusiastically and, in the light of experimental logic, he asserted that legal rules and principles may best be viewed in behavioral terms — or, more specifically, as generalizations summarizing the past behavior of judges (and similar officials). At first, Cook approached the question from the viewpoint of the practising lawyer and maintained that the function of such generalizations was to be "useful tools" in helping lawyers to predict the future behavior of these officials; in this he refined Justice Holmes' rather crude prediction theory but nevertheless the approach was manifestly inadequate. In later years, Cook came to stress a further function of rules and principles — namely that of serving as aids to judges so that they might recall past decisions and note the social and economic policies underlying them; in this respect, they arrange and order past experience in a form which can best help decision-makers deal with future experience. Needless to say, rules and principles of law are — in common with every other type of generalization — avowedly tentative in nature and no dusty tome of jurisprudence or eloquent judicial utterance can transform them into the immutable principles dreamed of by the adherents of mechanical jurisprudence:

... every generalization we make is subject to just this limitation: we can with confidence treat it as "valid" only within the range of past experience upon which it is based, and when we

Harcourt, Brace and World, Inc., 1946) at 40
75. Scientific Method and the Law, supra, note 8 at 308; The Utility of Jurisprudence in the Solution of Legal Problems in Lectures on Legal Topics (New York: MacMillan, 1928) at 337; The Logical and Legal Bases of the Conflict of Laws, supra, note 25 at 8
76. When a lawyer is confronted with what we call a legal problem, what he wishes to know, in order to reach a solution, is how certain governmental officials — judges and others — will be confronted by the given situation. He, as much as the physical scientist, is therefore engaged in trying to prophesy future physical events; The Utility of Jurisprudence in the Solution of Legal Problems, supra, note 60 at 337. For criticism of the "crude" prediction theory, see David H. Moskowitz, The Prediction Theory of Law (1966), 39 Temp. L.Q. 413; Hart, The Concept of Law (Oxford U.P., 1961) at 38ff. However, the criticism is mainly directed at a straw realism; See E. Hunter Taylor Jr., H.L.A. Hart's Concept of Law in the Perspective of Legal Realism (1972), 35 Mod.L.Rev. 606. Certainly, Moskowitz and Hart ignore the more mature approach of Cook in their assessment of realism.
77. See, e.g., the revision of his original paper — The Logical and Legal Bases of the Conflict of Laws (1924), 33 Yale L.J. 457 — in the 1942 book of the same name (see supra, note 25)
78. A Scientific Approach to the Study of Law, supra, note 24 at 211-212
wish to use it we can never be sure that in putting under it the situation which now confronts us we are justified in so doing, we may have neglected as irrelevant aspects of the situation which turn out, when we put our conclusion to the test of experience, to be of the highest importance. We may express this point of view by saying that our generalizations are convenient shorthand summaries of past experience, enabling us to recall more easily what those experiences were and how we interpreted and dealt with them, summaries which aid us, as Dewey says, to bring the net value of past experience to the scrutiny of new perplexities.78

In formulating his generalizations, the lawyer must concentrate ‘primarily upon what courts have done, rather than upon the description they have given of the reasons for their action’.79 Cook believed that this approach would eliminate the major vice of traditional legal scholarship — namely, that many supposed rules or principles were so broadly stated as to go far beyond any existing trends in decisions and that many others were so vague as to be virtually useless either as a basis for accurate prediction or as indicators of the relevant considerations of social policy.80

The most celebrated application of this approach was Cook’s incisive analysis of Beale’s vested rights theory in the conflict of laws.81 Cook’s objection to Beale’s theory was that the premises of his formal logic were based not upon observation but upon metaphysical reflection as to the “essential nature of law and legal rights”.82 Cook argued that, in its futile quest for universal acceptance of fundamental rules, the vested rights theory seriously distorted what the courts were doing in fact. In his view, close examination of judicial behavior compels acceptance of a “local law theory”:

79. Whatever generalizations we reach will therefore purport to be first of all an attempt to describe in as simple a way as possible the concrete judicial phenomena observed, and their ‘validity’ will be measured by their effectiveness in accomplishing that purpose. In other words, they will be regarded as ‘true’ only in so far as they enable us to handle effectively the concrete materials with which we must deal.

80. See, e.g., Privileges of Labor Unions in the Struggle for Life (1917-18), 27 Yale L.J. 779

81. The Logical and Legal Bases of the Conflict of Laws, supra, note 25 at Ch.1

82. Id. at 5-8. Note that Beale was also a prime target for Jerome Frank in his Law and the Modern Mind (New York: Coward-McConn, 1930). In his contribution to a symposium on Frank’s book, Cook attributed similar views to other “of our legal brethren” but they remained unnamed: see, Law and the Modern Mind: A Symposium (1931), 31 Colum.L.R. 82 at 110
the forum, when confronted by a case involving foreign elements always applies its own law to the case, but in doing so adopts and enforces as its own law a rule of decision identical, or at least highly similar though not identical, in scope with a rule of decision found in the system of law in force in another state or country with which some or all of the foreign elements are connected, the rule so selected being in many groups of cases, and subject to the exceptions to be noted later, the rule of decision which the given foreign state or country would apply, not to this very group of facts now before the court of the forum, but to a similar but purely domestic group of facts involving for the foreign court no foreign element. The rule thus “incorporated” into the law of the forum may for convenience be called the “domestic rule” of the foreign state, as distinguished from its rule applicable to cases involving foreign elements. The forum thus enforces not a foreign right but a right created by its own law. 83

In these circumstances, Cook contended that it was completely unrealistic to speak — as did Beale — of the enforcement of rights as defined and created by the law of a foreign jurisdiction. As one commentator has noted, Cook’s contribution in this regard “lies in the realization that the function of the conflict of laws is not the preservation of international order but the carrying out of local law and policy”. 84

However, it was not in the development of empirical observation alone that Cook put his faith. In his view, there was also a compelling need for a modern analytical jurisprudence; such a discipline was needed in order to combat the failure of traditional scholarship to establish generalizations which were free from ambiguity. In Cook’s view, many legal rules and principles which were perfectly capable of serving as accurate generalizations — if properly interpreted — were vitiated by the flaw of ambiguity in terminology. 85 The particular vehicle chosen for the task of combatting such deficiencies was Hohfeld’s framework of fundamental legal conceptions. 86 Cook published a series of articles in which he claimed the adoption of Hohfeldian terminology would

83. The Logical and Legal Bases of the Conflict of Laws, supra, note 25 at 20-21
84. Nygh, Conflict of Laws in Australia (2nd ed. Sydney: Butterworths, 1971) at 82-83
85. Supra, note 80 at 785
result in more satisfactory decision-making;\textsuperscript{87} nevertheless he was swift to acknowledge that such analysis was only a means to a greater end:

Analysis is necessary but not sufficient. Analysis enables us to see just what our problem is; to discover hidden analogies, or differences which but for the analysis might have escaped our attention. The choice between the competing analogies which analysis has revealed must naturally be based upon considerations of social or economic policy, of the end to be reached and of the best means of reaching the end when it is known.\textsuperscript{88}

Hessel Yntema's approach to these issues was remarkably similar to that maintained by Cook — although, in Yntema's case, the most influential intellectual precursor appears to have been Holmes rather than Dewey.\textsuperscript{89} One specific area in which Yntema lent his support to Cook's general approach was his emphatic rejection of Adler's notion that there was utility in a logic divorced from empirical reality:

\ldots If the realm of law were like mathematics compounded of hypotheses of the stuff which dreams are made of, no one would object to peopling the legal world with principles, rights or other juristic constructions. But law is not logic, however usefully logic may be made to serve the ends of law. And any system of thought so fragmentary as to base the actual statement or reform of law upon purely logical deductions from combinations of abstract symbols without careful analysis of the practical purposes of legal traditions and institutions considered with reference to the concrete case is not merely obscurant but socially dangerous. Only by constantly checking the hypotheses resulting from logical manipulations against observation and experience

\textsuperscript{87} See, \textit{e.g.}, \textit{The Utility of Jurisprudence in the Solution of Legal Problems}, \textit{supra}, note 60 at 389-390; \textit{The Alienability of Choses in Action} (1916), 29 Harv. L. Rev. 816 and (1917), 30 Harv. L. Rev. 449

\textsuperscript{88} \textit{The Utility of Jurisprudence in the Solution of Legal Problems}, \textit{supra}, note 60 at 367; Hohfeld held the same view:

\ldots he emphasized over and over again — especially in his notable address before the Association of American Law Schools upon \textit{A Vital School of Jurisprudence} — that analytical work merely paves the way for other branches of jurisprudence, and that without the aid of the latter satisfactory solutions of legal problems cannot be reached. Thus, legal analysis to him was primarily a means to an end, a necessary aid in discovering just what the problems are which confront the courts.

\textsuperscript{89} See, \textit{e.g.}, Yntema, \textit{Justice Holmes' View of Legal Science} (1931-32), 40 Yale L.J. 696.
can we hope to approximate practical truth or justice in the administration of law.\textsuperscript{90}

Yntema also followed Cook in directing his scalpel at the core of the vested rights theory although it was Goodrich rather than Beale whose work was submitted to scathing criticism. Drawing upon the lessons to be gleaned from Semantics, Yntema demonstrated that the verbal symbols employed in the vested rights theory were both too far removed from reality and too few to create classifications that were of any use to anyone attempting to uncover the social and economic policies underlying judicial decision-making; as a result, the theory was of no use whatsoever in describing what the courts were actually doing:

To say that laws “exist” within defined geographical limits; that by these laws rights are “created” and so “exist” until they are destroyed by operation of law; that furthermore, there are “principles” which invest these rights with the powers of migrating from state to state; and that by virtue of these principles rights so vested are recognized and enforced in foreign courts is to express in crass symbols the most complex syntheses of phenomena.\textsuperscript{91}

Curiously enough, Yntema did not share his colleague’s enthusiasm for analytical jurisprudence as a preparatory remedy to these linguistic defects in traditional scholarship.

For Yntema, legal rules and principles are no more than tentative classifications of recurrent phenomena in judicial decision-making. In this sense, such rules and principles are intelligible only if they are viewed within the context of the concrete judicial experience they purport to represent; by themselves they amount to little more than “mnemonic devices” — “useful but hollow diagrams of what has been”. In Yntema’s words,

Human activities must be analysed and described for legal purposes in terms and rules, all of them symbolic of the activities to which they advert. But to say that the rule is the law, that the symbol is reality, leaves us still in the squirrel-cage of conceptualism; it is only less objectionable than defining law in terms of general principles to the extent that the rules embrace a narrower scope . . . . the language of the law, its concepts and

\textsuperscript{90} The Rational Basis of Legal Science, supra, note 64 at 931 quoting from The Hornbook Method and the Conflict of Laws, supra, note 66

\textsuperscript{91} The Hornbook Method and the Conflict of Laws, supra, note 66 at 476. The Specific work Yntema criticised was Goodrich’s Handbook on the Conflict of Laws (St. Paul, Minn.: West Publishing Co., 1927)
rules, is indispensable as a vehicle for expressing thought. This it can do but imperfectly and more it cannot.³⁹

Like his colleagues, Oliphant was profoundly affected by the assault of Dewey and Holmes upon the bastions of formal logic. Following these two scholars, Oliphant argued that faith in such logic was the inevitable outcome of man's futile quest for certainty.⁴³ In his view, the tyranny of such modes of thinking emanated from a medieval scholasticism which continued to permeate the ranks of jurisprudence. Within the context of an introduction to Rueff's book, From the Physical to the Social Sciences (1929),⁴⁴ Oliphant (together with Abraham Hewitt) exposed the fruits of such scholasticism to a withering analysis.

In what has become a classic of American Realist literature, Oliphant and Hewitt demonstrated the manifest incapacity of either deductive or inductive logic to function as a technique of problem — solving. The first target of their attack was the mental process by means of which general principles of law are divined by some mysterious process of intuitive thought. In the so-called "transcendental approach", the general principles so arrived at are employed as the major premises of the deductive syllogism which characterized traditional jurisprudence. However, as Oliphant and Hewitt demonstrated, the fatal flaw in this approach is the fact that equally valid lines of argument leading to the exactly opposite result in each individual case can be constructed with relative ease:

... for any case wherein there is a clash of two groups having conflicting interests, two conflicting major premises can always be formulated, one embodying one set of interests, the other embodying the other. Each group has had its advocate to formulate its interests into general propositions and our novel cases all involve some conflict of interests:

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92. The Hornbook Method, id. at 481
93. Oliphant, The Relation of Current Economic and Social Problems to the Restatement of the Law (1923), 10 Law and Justice No. 3 at 20:

Mr. Justice Holmes has attributed it to the innate desire of the human mind for a deceptive sense of mathematical exactitude to flatter its longing for certainty and repose .... Professor Dewey has added, as an explanation of the persistence of this method of thought, the existence of an aesthetic quality in the human mind which responds to the form and symmetry of the syllogism and is cold to the apparent disorder of experimental thinking.

94. Jacques Rueff, From the Physical to the Social Sciences (trans. by H. Green, Institute of Law, Johns Hopkins Univ., Baltimore)
That two such conflicting major premises can always be found is but the result of the fundamental futility of this approach as a method of determining how novel cases should be decided.\textsuperscript{95}

In sharp contrast, the "inductive" approach does not put its faith in fundamental principles of law as the basis of its deductive syllogism; instead it purports to derive its major premises from past decided cases. However, as Oliphant and Hewitt point out, this approach cannot furnish solutions to novel cases because, \textit{ex hypothesi}, any generalization from past cases cannot include the case to be decided in the novel situation.\textsuperscript{96} In the end result, the inductive approach shares exactly the same weakness with the transcendental approach — namely that the selection of a major premise necessarily involves the \textit{choice} of the decision-maker and such a choice is exercised in an arena where both parties to the litigation may with equal validity use either logical approach to "prove" exactly opposite propositions.\textsuperscript{97} The conclusion to be drawn from this analysis corresponds closely to that reached by Cook and Yntema; a modern problem-solving logic must place its trust in empirical methods and, in this sense, traditional logic has been grossly abused:

Under the guise of logic \ldots we have methods purely arbitrary, everything depending on the choice of the major premise. This is not objectionable as method; the abuse lies in applying logic in the proper sphere of the empirical. When so applied, there is nothing to insure that the major premise chosen bears any useful relation to prevalent social values-the essence of justice. It is quite as likely to be the dogma of a medieval ghost still ruling us from the mists of antiquity.\textsuperscript{98}

Although Oliphant’s treatment of logic was closely related to that of Cook and Yntema, his approach to legal rules and principles was notable for its avowed behavioralism. No doubt influenced by Underhill Moore,\textsuperscript{99} Oliphant enthusiastically embraced Watsonian psychology and set about purging legal science of its excessive concentration on subjectivities:

\textsuperscript{95} Hewitt and Oliphant, Introduction to Rueff, \textit{id.} at XV-XVI
\textsuperscript{96} Id. at XIX
\textsuperscript{97} For further discussion of the concept of complementarity or paired-opposites, see, McDougal, \textit{Law as a Process of Decision: A Policy — Oriented Approach to Legal Study} (1956), 1 Natural L. Forum 53 at 61-62
\textsuperscript{98} Supra, note 95 at XXI
\textsuperscript{99} See, e.g., Moore, \textit{The Rational Basis of Legal Institutions} (1923), 23 Colum L. Rev. 609
The trouble is that we have been concentrating for some centuries upon data of such subjectivity as the layman's, judge's, or legislator's avowed or imagined motives rather than being content with first accurately acquainting ourselves with such objective data as their observable activity under fixed or variable conditions. Naturally we have come to feel that our materials in the social sciences are illusive. Just so would the botanist if, through his pages, wood-nymphs and satyrs still paraded.\textsuperscript{100}

One of the major casualties in this purge was to be the traditional scholastic deference to judicial opinions. In a valiant attempt to excise subjectivity from the analysis of judicial decision-making, Oliphant adopted the terminology of learning theory and argued that the "constant factor" which may serve as the sure foundation for empirical legal science was the court's \textit{response} to the \textit{stimuli} of the facts of the concrete cases before them. "Not the judges' opinions, but which way they decide cases, will be the dominant subject-matter of any truly scientific study of law".\textsuperscript{101} In Oliphant's view, the course of American legal scholarship since the mid-nineteenth century was marked by a remorseless retreat from the construction of generalizations which adequately describe the factual underpinnings of concrete judicial decisions. Oliphant alleged that, under the influence of European jurisprudence, American courts and scholars switched their attention to the promulgation of absolutes and universals and, in this process, the focus of jurisprudence was shifted to the "essays of rationalization"\textsuperscript{102} which clothe judicial decisions. While he was prepared to admit that opinions were a legitimate object of study in limited circumstances, Oliphant nevertheless banished them from the consciousness of empirical science:

The thesis is that facts are the only stimuli capable of scientific study as a basis of prediction. Prior rationalizations are rejected \textit{for this purpose} because the facts prevail when they diverge from the prior generalizations, and, for each rationalization indicating one result, a contradictory one indicating the opposite result can usually be found. The utility of prior rationalizations in the study

\textsuperscript{100} \textit{Facts, Opinions and Value-Judgments}, supra, note 31 at 135-36
\textsuperscript{101} \textit{A Return to Stare Decisis}, supra, note 33 at 225
\textsuperscript{102} More and more we have been taking abstractions of the past — many going back to medieval scholasticism — and tracing them down, not through the holdings of the cases, but through the opinions to see how they have fared in those essays of rationalization.

\textit{Id.} at 224
of judicial forensics, and the utility of such forensics are not being discussed at this time.\textsuperscript{103}

For Oliphant, therefore, legal rules and principles were the toothless armoury of an outworn logic and thus undeserving of emphasis in a science about law.

We are now in a position to delineate the balance of emphasis between operations and perspectives maintained in the work of the three scientists. In the case of Cook and Yntema a curious paradox emerges; while they tried to operationalize the notion of legal rules and principles the outcome of their efforts was nevertheless a new species of legal doctrine rather than a genuine effort to re-classify the phenomena of past judicial decision-making in scientifically relevant terms. Although Cook and Yntema hammered out the theme that decisions must be observed from an impartial observational standpoint and that the fruits of such observation will furnish the legal scientist with tentative generalizations which will aid the task of prediction, they were nevertheless uncharacteristically coy when it came to the question of suggesting concrete methods by which such a goal might be accomplished. One might well ask exactly what "facts" can be considered relevant in the formulation of the scientifically based generalizations heralded by Cook and Yntema? Furthermore, was the modern jurisprudent to rely on the facts adduced in the record of a case or was he to cast his net wider onto the type of background facts which constituted the grist for Underhill Moore's ill-fated institutional banking studies?\textsuperscript{104}

Since such crucial questions were never answered the inevitable conclusion to be drawn is that much of Cook and Yntema's analysis was argumentative rhetoric rather than a serious blueprint for a strictly empirical approach.

Nevertheless, the critics of legal realism took Cook and Yntema's words at face value and they were swift to point out that a purely behavioral treatment of judicial decision-making emasculates one of the central features of the whole process. As Dickinson pointed out in 1931,

\begin{quote}
while it is true that a study of the decisional behavior of past
\end{quote}

\textsuperscript{103} Id. at 226n.

\textsuperscript{104} Moore and Sussman, \textit{Legal and Institutional Methods Applied to the Debiting of Direct Discounts} (1931), 40 Yale L.J. 381, 555, 752, 928, 1055, 1219; Moore, Sussman, and Brand, \textit{Legal and Institutional Methods Applied to Orders to stop Payment of Checks} (1933), 42 Yale L.J. 817, 1198; Moore, Sussman, and Corstvet, \textit{Drawing Against Uncollected Checks} (1935-36), 45 Yale L.J. 1, 260
judges can be expected to shed light on what their successors will do, this is for the most part dependably so only to the extent that judges follow rules and precedents, or in other words make a deliberate effort to imitate their predecessors. Resemblance based upon such deliberate and conscious imitation is fundamentally unlike the automatic repetition of like reactions in the behavior of physical bodies under like circumstances; for it operates indirectly through the mental understanding which the later judge has of what the earlier judge has done . . . . In this sense the form of words through which earlier decisions are transmitted to the minds of later judges becomes a factor of the highest importance. 105

The irony implicit in statements such as this is that Cook and Yntema would have wholeheartedly agreed with its central proposition. Although they each stressed the importance of predicting decisions on the basis of their "new" type of generalization they nevertheless recognized that this aspect of the matter was relevant only to the legal practitioner; both of them envisaged that their re-formulated rules would also guide judges in the process of choice confronting them. Like Dewey, Cook and Yntema believed that legal rules and principles — as they were shaped by generations of judges — have a prima facie claim to be taken as indicating the best ways which experience has shown of dealing with the types of case to which they refer. 106 Where they differed from their critics was in their rejection of excessively broad rules which buried such experience in a pyramid of abstract universals and absolutes. For them, the new generalizations must draw adequate distinctions between the "facts" of past cases and they must do so in terms of the relevant social and economic policy which shaped the judges' choice. To all intents and purposes this was in effect a call for a more sophisticated legal doctrine; it was surely not an abandonment of perspectives in favor of concentrating on bare physical operations in the manner attempted by Underhill Moore. Indeed, in 1941, Yntema expressed considerable surprise at the manner in which even venerable critics such as Roscoe Pound had misinterpreted the position of the realist movement in this matter. As we have seen, the reason for such misrepresentation was — to a great extent — the exaggerated rhetoric of the realists themselves; however, Yntema's defence of their position is worthy

105. Dickinson, Legal Rules: Their Function in the Process of Decision, supra, note 63 at 840-41
106. See Patterson, supra, note 69 at 622
If the realists really believed that legal concepts have no significance, it would be difficult to understand why they have been so concerned about their real significance. The fact is that the realists, not unjustifiably supposing that general concepts may have little consequence apart from their specific connotations and perceiving the eminent possibility that certain of the rules and concepts may serve purposes other than appear on the surface, have been particularly concerned to ascertain the function and effects of the conceptual apparatus in relation to other factors affecting the legal order. That this inquiry has led them to deny to the conceptual apparatus sole or even primary significance in certain crucial types of cases, to suggest that particular conventional legal formulations do not adequately represent what is doing in the judicial process, is perhaps the occasion for objection on the part of those who attribute unique significance to the traditional authoritative concepts. But the objection is not supported by its mere assertion.107

In the light of these observations, it is clear that Cook and Yntema never asserted that the judicial opinion was of no utility to legal science. Admittedly, their polemical style often appeared to commit them to positions they could not sustain; however, their adoption of the logic of pragmatism indicates that the judicial opinion is not to be dismissed as a mere "rationalization". As Dewey has indicated, the logic of exposition manifested in the judge’s opinion is vital not only because it ensures that the decision will not appear as an abitrary dictum but also because it indicates a

107. Yntema, Jurisprudence on Parade, supra, note 23 at 1161. A related criticism which was levelled at the realists in general was the somewhat fanciful notion that realism was based on the epistemological quagmire of nominalistic metaphysics. This criticism was mainly advanced by Morris Cohen who engaged in frequent sparring matches with Yntema on the issue. The debate rings hollow in the 1970s but the allegation that the realists denied the existence of classes and saw each decision as an unique experience is patently absurd. All that writers such as Cook intended to convey was that classification is an active process in which the classifier must always be prepared to adapt his conceptual apparatus to empirical reality. Furthermore, as Yntema himself argued,

what the realists have pertinently pointed out . . . is that frequently a legal situation may be classified under several . . . general conceptions, thus rendering it necessary to look beyond the preconceived conceptual scheme for a basis of determination. Id. at 1160-61.

See also Dewey, Reconstruction in Philosophy, supra, note 70 at 151ff. For the course of the debate on nominalism, see Cohen, Justice Holmes and the Nature of Law (1931), 31 Colum. L. Rev. 352; Yntema, The Rational Basis of Legal Science, supra, note 64, and Jurisprudence and Metaphysics — A Triangular Correspondence (1950), 59 Yale L.J. 273
rule for dealing with similar cases in the future.\textsuperscript{108} The \textit{caveat} stressed by the pragmatists was that such a rule was only a tentative generalization whose consequences must be rigorously assessed before it is applied to new cases.

Although the balance of emphasis between operations and perspectives appears to be more heavily weighted on the behavioral scale in the case of Herman Oliphant, it is interesting to note that the same paradox ultimately emerges. It is understandable that many critics believed Oliphant was placing judicial decisions on a par with the salivation of Pavlov’s dogs when he adopted the stimulus — response rhetoric. However, Oliphant never operationalized his theory even to a minor extent — and in the end result the theory amounted more to a vivid literary device than to a genuine attempt to develop a systematic analysis of past decisions; in this respect, he studiously avoided the painful steps trodden by Underhill Moore in his own painstaking applications of learning theory to legal phenomena.\textsuperscript{109}

In the ultimate analysis, Oliphant followed Cook and Yntema in attempting to develop a more accurate technique of classifying past judicial decisions, and his purpose, like that of his colleagues, was to employ it in the creation of a legal doctrine which gave genuine aid to both judges and practitioners in the performance of their various functions. Significantly, it was Karl Llewellyn who first recognized the direction of the underlying currents in Oliphant’s work:

Oliphant had attempted to correlate facts, issues, and results of cases independently of the reasoning of the opinions; the essential result from his work is that — as case-law history shows — this is frequently, but not always, an excellent road out of confusion, but that its effect is to give us new and clearer doctrine, to be dealt with still along the familiar case-law lines.\textsuperscript{110}

Although Oliphant purported to eschew judicial opinions altogether, it is clear that he only did so in so far as they discussed past decisions in terms of absolutes and universals. Ultimately, Oliphant wished courts to return to the assumed state of innocence existing before the mid-nineteenth century in which past decisions were analysed in terms of their ‘‘facts’’; clearly, the judicial opinion

\begin{itemize}
\item \textsuperscript{108} Dewey, \textit{supra}, note 14 at 24
\item \textsuperscript{109} Moore and Callahan, \textit{Law and Learning Theory} (1943), 53 Yale L.J. 1
\item \textsuperscript{110} Llewellyn, \textit{Jurisprudence: Realism in Theory and Practice} (University of Chicago Press, 1962) at 158-159
\end{itemize}
can be of immense utility both to the future decision-maker and to the legal scholar if it adequately records the fact and policy elements of judicial experience.

VI. Conception of Authority and Control

Cook, Oliphant, and Yntema did not explicitly distinguish between the twin concepts of authority and control. In accordance with the dominant trend in American legal realism, they manifested scant interest in the constitutive process by means of which authoritative decision-makers are established in their positions and their authority maintained. In effect, the three scholars deliberately excised the legal process from its natural mooring in the wider polity and treated it as a semi-closed system.

Cook, Oliphant and Yntema did not pursue the approach of Arnold, Frank and the Scandinavian realists who brought their tools of analysis to bear on the psychological roots of authority nor did they seek to tread the path chosen by fledgling sociologists of law, such as Timasheff, who explicitly posed leading questions about the complex relationship pertaining between the formal structures of authority and the realities of power. Nevertheless, it is clear that they gave tacit recognition in their work to the imperative need for the law to respond to changes in community perspectives and, in this respect, they may be said to have adopted an implied concept of authority.

Fundamental to the approach of Cook, Oliphant, and Yntema was a whole-hearted acceptance of Holmes' aphorism that legal rules and principles are interpreted and applied against the backcloth of "the felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even the prejudices which judges share with their fellow-men." However, it was the activist twist given to this notion by Wesley

111. These trends in European thought were in a process of germination when the realist movement was in full swing during the 30s and it is true that Yntema fully recognized their significance in 1941; see Jurisprudence on Parade, supra, note 23 passim. However, the work of Frank and Arnold clearly indicates that there was no lack of source material for those who wished to pursue a comprehensive investigation of the authoritative component of law. For the major Scandinavian work at this time, see Olivercrona, Law as Fact (2nd ed. London: Stevens & Sons, 1971). For Timasheff's discussion of ethico-imperative forms of social co-ordination, see N.S. Timasheff, An Introduction to the Sociology of Law (Harvard Univ. Committee on Research in the Social Sciences, 1939)

112. Discussed in Yntema, supra, note 89 at 698
Newcomb Hohfeld which most visibly shaped the three scholars' conception of authority. In 1914, Hohfeld had given a stirring address to the Association of American Law Schools in which he had placed particular emphasis on the continuous problem of making the law "an expression of developing ideas of right rather than a petrifying formulation of quondam beliefs". A typical restatement of this insight into the authoritative component of law was made by Yntema in 1931:

> It is the faith of empirical legal science that ideals of justice not related to human needs are not true ideals; that justice itself is not an ineffable effervescence of a logical void, but an outflow of specific human relations, of particular human emotions, and of life, and so to be known.

Since the scope of their jurisprudential endeavors did not extend to the realms of the political process, the concept of control implicit in the work of Cook, Oliphant, and Yntema was necessarily a restricted one. In effect, their application of the concept was confined to a discussion of the degree to which legal rules may be said to control judicial decision-making. Swimming with the tide of realism which emphasized the often gross disparity between "the law in the books" and "the law in action", Oliphant and Yntema (and, to a lesser extent, Cook) gave the limelight to those situations where authoritative rules and principles of law clearly did not control decision-making. In Yntema's view, for example,

> The ideal of a government of laws and not of men is a dream which will have to wait for the time when law becomes calculus to be realized. Still less can it be said that the administration of justice is controlled by general principles. The history of codes and of legislation, or even of language, should have taught us long since that rules and principles are empty symbols which take on significance only to the extent that they are informed with the social and professional traditions of a particular time and place.

Naturally, such a view was deceptively simplistic being based almost exclusively on the extraordinary cases which arouse the interest of academics and law review editors. As Cook himself

114. Yntema, *supra*, note 64 at 955
115. Yntema, *supra*, note 66 at 479-80
116. See Yntema's later statement in *American Legal Realism in Retrospect*, *supra*, note 23 at 327-28
pointed out, "settled legal principles" may clearly be said to exert a controlling influence upon judicial decision-making in the run-of-the-mill case where no real issue of policy is raised:

The question has to do with the degree of difference between the state of facts before the court and states of fact passed upon in previous decisions. If this difference be sufficiently great, the case cannot fairly be regarded as covered by the previous cases. If on the other hand the difference is sufficiently small, so that no reason of policy can fairly be said to exist for differentiating the present situation from those previously passed on, we may fairly regard the case in hand as governed by "settled legal principles". The chief practical difference is that, in the one case the court has for the first time to pass upon the policy of a decision one way or the other, while in the other it has previous determinations as to the policy to rely on. Inasmuch, however, as the court may in any case refuse to follow the past adjudications, ultimately the function of the court in both cases is the same.\textsuperscript{117}

However, as can be gathered from the above passage, Cook was swift to point out that rules cannot control decisions in a mechanical way — even in the run-of-the-mill case. The judges may decide to reverse the policy enshrined in the previous applications of the rules concerned and, in this sense, the rules are controlling only to a strictly limited degree. The specific contribution of Cook, Oliphant, Yntema, and the realist movement in general was to highlight, on the one hand, the need for conscious articulation of judicial policy — a process which would clearly indicate the true function of legal rules — and, on the other hand, the need for judges to sustain the authority of the law by ensuring that their own notions of policy accord with community expectations about decision outcomes.

\textbf{VII. The Relationship Between Law and the Social Process}

Our law and, in some measure, our lives are regulated by persons who do not and cannot know what is going on. We have been surfeited with speciously brilliant legal theories, whose relation to the needs of life nobody knows.\textsuperscript{118}

A constantly recurring theme in the works of Cook, Oliphant, and Yntema is the need for empirical observation of the law in action.\textsuperscript{119}

\textsuperscript{117} Supra, note 80 at 796n.

\textsuperscript{118} Yntema, \textit{The Implications of Legal Science}, supra, note 23 at 308

\textsuperscript{119} See, e.g., Cook, \textit{Scientific Method and the Law}, supra, note 8 at 308:

. . . . the worth or value of a given rule of law can be determined only by finding out how it works, that is, by ascertaining, so far as that can be done, whether it promotes or retards the attainment of desired ends.
One context within which this theme appeared was the Columbia debate on legal education during the 1920s in which all three scholars played a not insignificant role. Oliphant in particular was adamant in his demand that the whole structure of legal education be replaced with a radical alternative. One of the critical phases in the educational framework he proposed was

The acquisition of a background for the study of law, consisting of an understanding of the structure and functioning of modern society, an appreciation of the devices and processes of all forms of social control in contemporary society, and an orienting knowledge of the agencies and processes of law, viewed as but one form of social control.120

In Oliphant's view, therefore, the modern lawyer must be equipped with at least a basic understanding both of society as a complex interrelation of processes and of the function of the legal system within the total social fabric. This was a view which Cook and Yntema appeared to have shared.

A second context within which the theme appeared prominently was the jurisprudential debate concerning the nature and purpose of the Johns Hopkins Institute of Law. One of the functions envisaged for this "community of scholars" was the creation of an oasis of reliable information in the "Sahara of ignorance" enveloping the relationship between law and the social process. Oliphant and Yntema severely deprecated the vain reliance of traditional jurisprudence upon "common sense" knowledge and they stressed that true understanding of the social process could be attained only by means of systematic empirical study.121 The nature of the inquiry which the Institute would undertake was outlined by Cook:

... in a school of the kind we are considering there would be carried on studies in the actual operation of our law. This would

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See also, e.g., Yntema, *The Purview of Research in the Administration of Justice*, *supra*, note 22 at 348:

... the present central purpose of research in the administration of justice is the description of the actual operation of law, both substantive and procedural, on an observational basis widely representative of varied times and places, and the accumulation and classification of the items necessary to this end.

120. Oliphant, ed., *Summary of Studies in Legal Education*, *supra*, note 3 at 61
121. Oliphant, *supra*, note 93 at 21:

We do not know social reality merely because we live in it. The experience of any man, however broad is limited to one time. It is usually limited to one people, to one class and even to one occupation.

See also Yntema, *The Implications of Legal Science*, *supra*, note 23 at 308-309
involve research into the conflicts of interest which arise in the community and into the adjustments of these which we seek to bring about by legal means. In this connection would be made studies in legal history, and comparative law, so that we may take advantage of the experience of other times and other peoples in solving similar problems. Here also would be required the study of present day social, economic, and political relations affected by particular bodies of law. The co-operation of students in the other social sciences would be needed.

The Faculty of the Institute did in fact prepare the type of programme envisaged by Cook in the passage above; indeed, the blueprint prepared for the Institute made ample provision for a genuinely systematic and rigorous examination of the complex relationship between law and the social process. Tragically, the concrete achievements of the Institute were woefully slight, consisting mainly of a rudimentary collection of statistics rather than a critical investigation of the nature and function of law in society. One of the more sympathetic critics of the Institute summarized its work in the following manner:

Because the initial research was an attempt to study facts about the complicated and far-flung machinery of three states, little or no attention was paid to the problem of determining the usefulness of individual legal devices in solving specific social problems. This type of research was clearly within the contemplation of the founders, and this stage of the development of legal science might have been reached had the Institute gone on with its work. Unfortunately, the pre-occupation with mass statistics prevented pertinent research of this nature. Masses of facts are important only in light of social problems to which they are related. Since the Institute never reached the stage of isolating particular social problems, the masses of facts collected are informative but not particularly significant. It might be said that the scientific work of the Institute reached approximately the same stage as botany would, had its efforts been devoted wholly to counting leaves on trees.

One of the most curious paradoxes in the history of American legal realism is the contrast between the voluminous writings of Cook, Oliphant, and Yntema upon the subject of scientific theory and method, on the one hand, and the almost complete absence of any reference to social, political, or economic theory in such

122. Cook, Scientific Method and the Law, supra, note 8 at 309
123. F. K. Beutel, Some Potentialities of Experimental Jurisprudence as a New Branch of Social Science (Lincoln: University of Nebraska Press, 1957) at 112
writings, on the other. Not a single member of the august trio deigned to establish even the most rudimentary conceptual framework capable of ordering empirical information into a meaningful form. Similarly, none of the three scholars developed any general theory capable of generating hypotheses susceptible to empirical testing; instead, Cook retreated into the cloistered calm of analytical jurisprudence and Oliphant and Yntema lent their efforts to a mindless amassing of statistics without reference to any guiding theory whatsoever.

The only trace of general theory in their work is an apparent acceptance of William Ogburn’s theory of "cultural lag". In 1931, Yntema explicitly relied on this theory in his discussion of the potential avenues for research into the administration of justice. Yntema contended that the major change in material culture during the preceding century of American history had been the advent of breathtaking technological progress which had brought in its ubiquitous train the phenomenon known to modern societies as specialization. In Yntema’s view, such significant developments in material culture had far outstripped developments in other facets of American culture such as law. The cultural lag which inevitably ensued precipitated a major social crisis precisely because the law was geared to cope only with the problems of an uncomplicated society long since swept away by the march of technological change. Yntema’s conclusion was that it must be the responsibility of the practitioner of modern jurisprudence to ensure that the prescriptions of the law are adjusted to meet the demands of change in the realms of material culture. Therefore, one of the major functions of research institutions, such as the Johns Hopkins Institute, was to furnish the information necessary for this task of adjustments:

It may be premised, as a basis for research in this field, that a system of institutions and of ideas such as was presumably quite

124. Ogburn first stated his theory in 1923. For a comprehensive account, however, see Ogburn, Social Change (New York: Viking Press, 1933) at 73 and 196:

. . . . Material culture accumulates. The use of bronze is added to the use of stone. The use of bronze is added to the use of copper and the use of iron is added to the use of bronze. So that the stream of material culture grows bigger . . . . These material culture changes force changes in other parts of culture such as social organization and customs, but these latter parts of culture do not change as quickly. They lag behind the material culture changes . . . .

125. Yntema, supra, note 22
appropriate to medieval England or pioneer America, both relatively agricultural communities, might well prove insufficiently adapted to contemporary needs. The present public concern in the administration of justice suggests that neither legislation nor precedent have themselves yet sufficiently bridged this social evolution. And it may further be premised, again as a basis for research in this field, that legislation and precedent have not done so, primarily because there has not been available a sufficient and accurate body of information pointed so as to furnish the directives, and consequently they have had to remain too general in attitude and technique, too little and too inappropriately specialized for the specialization of modern life.

In these phenomena of specialization the crux of this aspect of law seems to lie; from it springs the opportunity and the responsibility of legal research to provide information as to the specialized conditions of justice in changing times.\textsuperscript{126}

Unfortunately, Yntema did not develop this approach any further. At most, the cultural lag theory can only stand as but part of a general theory of social change and it is significant that such a theory was absent from the works of all the American legal realists. Even within the confines of the cultural lag theory itself, one would have expected Yntema to have examined the impact of specialization on particular bodies of law; inexplicably, he completely failed to pursue this line of inquiry.

It is indeed mystifying to ponder the lamentable failure of Cook, Oliphant, and Yntema in the tracing of the relationship between law and the social process. Together, they wrote more on the need for scientific theory than the other realists yet, unlike Underhill Moore, no attempt was made to survey the effects of law upon behavior or the relationship between social behavior and legal development; unlike Karl Llewellyn, no attempt was made to develop a theory about the functions of law in society; and unlike Thurman Arnold, no attempt was made to discuss the role of law in the process of social change. For a group of scholars whose \textit{leit-motiv} was a refrain calling for detailed examination of the law in operation, the paucity of concrete results is most strange.

(to be continued)

\textsuperscript{126} \textit{Id.} at 340-41. A similar analysis appears to underlie Oliphant's \textit{A Return to Stare Decisis, supra}, note 33