Curriculum designers tend (a) to reflect partisan epistemological stances and (b) to neglect the value problem, in the course of claiming professional neutrality. This article conducts a 'conceptual experiment' to discover what curriculum proposals might plausibly follow from each of five distinctive epistemologies. A comparison with actual theories in twentieth century educational writing suggests that restrictive normative epistemologies have hampered curriculum development. It is concluded that (a) an ordinary language formalism is the most comprehensive and neutral base available, and (b) the value problem cannot be evaded thereby.

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# EPISTEMOLOGIES AND CURRICULUM MODELS

## I

Wittingly or unwittingly, professional curriculum planners have a tendency to convey the impression that the sponsors of school systems whom they serve have only to indicate what they want, and the planners will then apply their impartial expertise to the task of giving it to them. The posture of professional neutrality is, however, severely compromised at the outset by the dependence of curriculum theory on the epistemological stance of the planners. Epistemology enters in at every point where discussants and researchers speak of 'knowing' and 'knowledge', for the answers given to such questions as "What is it that we know?", "How does one come to know?" and "What is the relation of knowing to learning?" are prior to empirical research and ordain the direction of curriculum planning. If we are unclear on these questions, or committed to a restrictive theory of knowledge, then the union of facts and values in a curriculum will not be consummated.

This article is a 'conceptual experiment' in curriculum theory. The aim is to sketch five idealized theories of knowledge and to estimate how each might plausibly be expected to influence curriculum design. At a later stage I compare these with actual examples, suggesting that the ease of matching is a disturbing phenomenon, in view of the demonstration that value problems can be thus so easily ignored. All five theories belong to what Yolton calls loosely 'descriptive epistemology',[1] but the history of philosophy shows us that such accounts can never be purely descriptive because the investigation always retains the "taint of its starting point"[2] in some view of reality and human nature. My spelling out of the five positions will illustrate this. Each

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[1] John W. Yolton (ed.), *Theory of Knowledge*, (New York: Macmillan, 1965), p. 11.

[2] A.N. Whitehead, *Essays in Science and Philosophy,* (New York: Philosophical Library), 1948, p. 98. Similarly, Yolton claims that any starting point "must be helped out by *ad hoc* assumptions". See Yolton, p. 12.

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theory is an abstraction from richer theories held by actual people; for example, I do not proffer a 'Pragmatist' theory because in terms of my analysis this position includes elements of both the POSITIVIST and SOCIOLOGICAL approaches described here. Hence, the labels chosen to represent the five theories are not intended to do justice to particular thinkers or schools of thought in the round but merely to suggest the general approaches from which the 'pure' samples have been extracted. I do, however, suggest in section IX that many major curriculum trends from Herbart to the present time exhibit features sufficiently akin to one or more of the five theories, to make plausible the claim that their strengths and defects have epistemological causes. To establish that a particular epistemology caused curriculum planning to go a certain way is, of course, problematic, but it may not be without profit to make explicit *post facto* the leading epistemological assumptions in the respective theories, as a contribution to evaluating their general adequacy.

## II

A further limitation of the possible variables is necessary to keep the experiment within bounds. The variable in which we are interested is epistemology. The many other factors that enter in, including those mentioned in the opening paragraph, must, as far as possible, be kept constant. I shall assume, therefore:

1. *Freedom to experiment.* Social expectations have been neutralized, let us say, by the reassurance that "we will teach the things it is important for children to know", and the community's touching (though unwise) faith in the experts has also removed financial limitations. This gives us a free hand with *content.*

2. *All men by nature desire to know.*[3] Thus, the debates about self-realization as against socialization and other possible objectives for schooling are skirted by settling on this one element common to most formulations. This gives us a single *aim* whose import depends on the particular theory of knowledge.

3. *Prima facie, the way to learn is the way it was learnt in the first place.* This, of course, is patently unproven and probably unprovable. But it serves to side-step questions of empirical learning theory, by implying that teaching involves setting up conditions analogous to those which first gave rise to the acquisition of the knowledge. This enables us to suggest implications of each epistemology for *method.*

4. *Successful teaching may be gauged by getting the pupil to demonstrate what he 'knows'.* This assumption defers such considerations as whether to measure specific behaviours or dispositions, cognitive or affective objectives, for these depend on what we mean by 'know". The simple assumption is that *evaluation* requires demonstration of 'knowing'.

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[3]With acknowledgements to the first sentence of Aristotle's *Metaphysics.*

These are the 'laboratory conditions'. I will not attempt to claim that in practice the epistemologies under consideration *cause* the described curriculum features to appear. Nor will the models be comprehensive enough to guarantee the logical entailment of the methods of teaching and evaluation suggested under each heading.[4] I would want to claim, however, that, *prima facie,* the methods described are those most in harmony with the epistemological stance related to them.[5] The value of the attempt, if any, will be demonstrated by the light it sheds on the real curriculum theories reviewed in section IX.

The five epistemologies are referred to respectively as: ESSENTIALIST, POSITIVIST, SOCIOLOGICAL, EXISTENTIALIST and FORMALIST. They are capitalized whenever referred to in the essay, as a reminder that they are labels for the 'pure' theories described in sections III-VII, and do not necessarily connote any of the other meanings commonly associated with them in academic discourse.

### III

The ESSENTIALIST position holds that to 'know' something is to entertain a true proposition about a mental or physical entity. For a proposition to be true it must correspond to the essential and enduring stuff of what is believed to be an ordered universe. It is not vital to our case whether, in the last analysis, the basic stuff will turn out to be mental idea or physical real, for either way the world of which we are a part is amenable to rational ordering and vindicates disciplined study.

At the present time, man can be said to (a) know some propositions that are true, (b) suppose that he knows some propositions which are not in fact true, and (c) believe some propositions that he does not yet know to be true. The range of propositions in category (a) is often slighted, whereas in fact there is a growing body of tested knowledge inherited from the past, encapsulated in the disciplines of enquiry, and stable despite major theoretical revisions. Modern understanding, scholarship and research do not negate past insights; they build on them and absorb the truth that is in them. To know more, we must first acquire the 'essentials' of what is already known. The goal of knowledge is explanation; whether analytic, predictive or retrodictive depends on the form of knowledge.

How do we know which propositions are true? At the present time, testing procedures are themselves under revision and question in many areas, and time will tell which are reliable. But general criteria of coherence (between ideas), cogency and survival capacity give a good lead, though they re-

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[4]It is doubtful if they could be. Effective criticisms have been directed against attempts to derive educational procedures from ideological positions or normative components thereof. See, for example, Foster McMurray, "Preface to an Autonomous Discipline of Education", *Educational Theory,* vol. 5, July 1955, pp. 129-140 and Joe R. Burnett, "Some Observations on the Logical Implications of Philosophical Theory for Educational Theory and Practice", *Educational Theory,* vol. 11, Apr. 1961, pp. 65-70.

[5]This is, perhaps, something like the notion of 'pragmatic implication' proposed by Hobert W. Burns in "The Logic of the 'Educational Implication'," *Educational Theory,* vol. 12, Jan. 1962, p. 63.

quire time to be confirmed. Hence we are better able to discern forms of truth in the humanities and the physical sciences than in, say, the more recently developed social sciences. The distinction between knowledge, supposed knowledge and belief must therefore be kept clearly in mind, even though the boundaries will not be easy to draw. Probable consequences for curriculum design are as follows.

*Content.* Clearly, if education aims to develop the child as a knower, (assumption 2), it will need to introduce him to what is known and to the disciplines of thought. Stored propositions and seminal ideas are to be found in the great classics of literature, history, religion, philosophy, mathematics, natural science and the human sciences.

*Method.* If the child is to acquire the knowledge described above, then it must be presented to him in ways that reflect its original acquisition (assumption 3), subject to his ability to grasp what is being presented. On both counts, this means in general proceeding from the simple to the more complex, particulars to universals, past to present. These principles will apply differently to the various disciplines. For example, history is the clearest example of material to be organized on a past-to-present sequence. Natural science, where much past knowledge has been exposed as error, is best taught through a recapitulation of crucial hypotheses and tests (particular) leading to better theories (general). The intention is to prompt students to 'think through' the development of the discipline, sharing vicariously in the original acts of discovery. There will be emphasis on teacher-telling, reading, discussing and writing, with some use of practical experimenting and research insofar as they conduce to understanding the heritage.

*Evaluation.* Getting the pupil to show that he knows something (assumption 4) depends finally on his ability to 'explain himself' in relation to the various domains of knowledge. Literary and verbal reproduction come readily to mind. However, since mere rote recall does not guarantee understanding of the propositions recited, it is needful for evaluation that the student be called upon to bring his knowledge to bear on solving set problems, whether of literary appreciation, historical or scientific explanation, logical analysis, or whatever. It seems reasonable to suppose that if the student can demonstrate ability to move around conceptually in such realms as these under test conditions, he will be as well equipped for life by schooling as we could hope.

## IV

The POSITIVIST position holds that since the posing of the Cartesian Doubt and the rise of science we have been driven into a logical corner with respect to knowledge claims, and it has become evident that many long-standing disagreements amongst thinkers have been due not to inaccuracies in argument or insufficiency of evidence but to verbal disputes that are not empirically amenable to either proof or disproof.

Where the testability criterion cannot be met, we are dealing with opinions or beliefs. While these undeniably sway human conduct to a consider-

able degree, they will only be resolved by being seen for what they are: ut-
terances employing language for purposes other than the stating of pro-
positions, and therefore, strictly speaking, meaningless. Progress depends
on the extension of the scientific method to every sphere of life, and the re-
duction of all problems to the language of science, disciplined by the rules
of logic.

*Content.* Obviously the premium content for education is the natural and
social sciences, buttressed by logic and mathematics, after a grounding in
precise communication skills. Other traditional study areas should be re-
cognized for the subsidiary and aesthetic hobbies that they are. Since there
is so much to be *un*done in present 'knowledge', even in the social sciences,
the emphasis should be less on content than technique. The sciences have
brought great changes upon us, new paradigms make former knowledge ob-
solete, and the better investment for tomorrow's knowers is method as con-
trasted with matter.

*Method.* Therefore the child should be nurtured in the disposition of de-
fining and solving his problems scientifically. Subject matter from the most
developed sciences should be used illustratively, and situations created
where problems of all kinds are encountered, defined operationally, tested
objectively and reported on publicly. A POSITIVIST school may to all ap-
pearances be teaching roughly the same subjects as a more traditional in-
stitution (except that some barren forms of pseudo-knowledge, such as re-
ligion and metaphysics will receive attention only to be dismissed), but the
difference will be one of approach and balance of time allotment.

*Evaluation.* Pupil evaluation will obviously go hand in hand with the me-
thod of teaching. Experiences of scientific scepticism and problem-solving
will yield observable results, and assessment will be possible in objective
terms. It is plausible to anticipate that relevant skills will be precisely iden-
tifiable, paving the way for standardized measurement, diagnosis and pre-
diction.

## V

The SOCIOLOGICAL approach combines an awareness of positivist
strictures on knowledge claims with an appreciate of cultural relativism and
the power of ideology. It considers that knowledge can never be free of the
prevailing *weltanschauung* of a culture, which will influence even the sup-
posedly objective determination of criteria for validation and verification.
There is, as it were, a sociology of *knowledge per se,* which helps us to stand
off and make inter-cultural comparisons. We cannot ever be sure of knowing
the 'truth', and with respect to social realities it is probable that there is no
objectively true state of affairs beyond the perceptions that the members of
a culture have of what is true, but a sociology of knowledge can heighten the
degree to which our observations become value-free.

Now that we live in a global village where the plurality of ideologies
causes ever more deadly clashes, it is the office of a SOCIOLOGICAL
epistemology to develop a logic of social consensus, whereby social truth

may be made and modified to accommodate new social realities. Inevitably, therefore, the sociologist of knowledge finds that his science leads not merely to prediction, but to some theory of social planning, contingent upon sociological understanding of the present situation.

*Content.* The openly programmatic character of the SOCIOLOGICAL approach may be interpreted to point in one of two directions. Either it is used to justify control of society by a sociologically trained elite, or it is interpreted as commending the training of all citizens to participate in consensus-making machinery. Since assumption 2 relates curriculum theory to *all* men as knowers, for this experiment I need only take the second path. It is clear that curriculum content will then include the natural sciences and mathematics, but will strive also through studies such as history, litera-ture, religion, economics, philosophy, etc. to demonstrate how culture-bound are beliefs and attitudes; while psychology and sociology help to develop a commitment to, and understanding of, consensus procedures. One cannot hope to do this all at once, and, in the earlier years of schooling, areas of study will be mainly built around a unified and sociologically-de-termined ideology of consensus.

*Method.* None knows better than the sociologist the influence of deep-rooted attitudes and values on rational thought. Hence, it is appropriate to view the early years of schooling before logical reasoning powers have de-veloped as the time for implanting the desired dispositions; utilizing, for example, the influence of group pressures and school rituals, judicious selec-tion of curriculum content and the reinforcement of socially approved be-havior. In the later years, more stress is laid on systematic study of social systems, group discussion, and practice in consensus-finding through stu-dent participation in school government and organization.

*Evaluation.* Along with tests of the more usual kind to check mastery of sub-ject matter, it would seem appropriate to include attitude scales, question-naires and clinical observation to determine the student's degree of social adjustment and sociological awareness. We should not let the novelty of this proposal perturb us, as it does some, since the personality is always socially determined. The job might as well be done effectively, therefore, the safeguard being that the personality-type we have and keep in view is a 'knower', capable of intelligent participation in democratic decision-making.

## VI

The EXISTENTIALIST approach is an epistemology of the knower rather than the known. Where Descartes laid the foundations of the objective, de-tached-observer sciences with his "I *think,* therefore I am", the EXISTEN-TIALIST retorts, "Your logic points in the wrong direction; what you are saying is '*I am* thinking, therefore I am', which is a tautology affirming the primal certainty of one's existence, not of thought". An unbalanced concen-tration on observer-knowledge has reduced man in his own eyes to a thing, encouraged the absorption of the individual into the system — be it logical

or social — and substituted collectivity for community.

While not denying that objective sciences and analytic studies are concerned with a species of knowledge and truth, the EXISTENTIALIST emphasizes 'personal knowledge' and the 'truth for me'. One may know oneself in ways that lie outside psychological test batteries because they hold the man together instead of dissecting him into abilities, traits or behaviors. One may know other persons with an immediate awareness that no amount of *knowledge about* the persons (if deprived of an actual meeting) will produce. One may know meaning-for-life through inter-subjective encounter with a profound piece of music, or a wise book, or a personal religious experience, or group sharing, or living through a 'boundary situation' such as suffering, guilt, despair or deliverance from death. There are truths that cannot be known or communicated to other knowers except by commitment to, and participation in, the communion of free persons, and the sharing of definitive experiences. The whole vocabulary of love, trust, promise-keeping and forgiveness belongs to the sphere of personal knowledge and the verification procedures appropriate to it.

*Content.* Just as in the academies the prestige belongs to studies of an empirical and objective-analytic temper, so in the schools the tide is running against the expressive arts, the subjectively-toned humanities and the individual's right to decide for himself. The EXISTENTIALIST urges more attention to studies that help the student to know himself as well as his world, and is less concerned to rule out any existing areas of study than to redress the timetable balance of objectivity as against subjectivity (and inter-subjectivity) and to humanize the 'point of view' from which all studies and students are approached.

*Method.* This implies freer forms of class organization, including individualized exploration of interests and small group interaction aimed more at strengthening ethical commitment and interpersonal insights than merely efficient collective problem-solving. The expressive and appreciative arts are given a more prominent place, and based less on critical analysis than on participation and creativity with a view to encouraging the growth of the self.

*Evaluation.* A likely EXISTENTIALIST reaction to the demand for student grades and scores would be: "Irrelevant. None of your business. The student is not an apple to be graded, but a person to be fulfilled. If you have engaged his interest and expanded his modes of self-awareness, what does it matter where he stands in relation to some arbitrary mean?" However, test scores and error-identification are justified to the extent that they help the learner to discover his own strengths and limitations.

## VII

The FORMALIST approach derives from an analysis of the uses of language. To say one *knows that* X is five feet in length, that M trusts N, that Plato was an Athenian, that it is contradictory to affirm 'A' and 'not A' at

the same time, that incest is wrong, etc., are all propositions that point to recognizable forms of discourse, dependent on their own special criteria of verification. To elect that one form — say, the physio-chemical — shall be regarded as primary, or as the only one to which truth criteria may meaningfully be applied, is to take up a normative stance whose justification lies outside the physio-chemical mode itself. In order to be normatively neutral, we must accept that a variety of 'language games' exists, each having meaning and being taken seriously by the participants. The epistemological task is then to investigate the senses in which each lays claim to conveying 'knowledge', and the procedures appropriate to verifying the propositions that appear in that mode.

Since this approach avoids hierarching the forms of knowledge, except to the extent that its attention is pragmatically concentrated on a finite number of language games that play a major part in our culture, and since its concern is with statements about, rather than sources of, knowledge, it is to some extent a meta-epistemology. However, it does result in the adoption of attitudes towards the knowledge claims of various disciplines that are in marked contrast to some of the other approaches which have been considered.

*Content.* In relation to curriculum content, there is a presumption in favour of fair representation for all the major forms of knowledge. The school experience then beomces an initiation into each of these forms. Once again, therefore, most of the traditional subject-areas re-appear, though some which have tended to be neglected or slighted, such as religion, ethics and aesthetics, may well receive more attention.

*Method.* The recognition of there being different kinds of 'knowledge' is likely to encourage teaching to the 'structure' rather than merely the characteristic 'propositions' of the form, for to understand is to know the rules of the game and how to use them. The humanities will not try to mimic the objective observer stance of the sciences, nor will musical appreciation depend primarily on analysis of style. Truth will not be identified with use, nor social description with ethical prescription, thereby avoiding some rather common category mistakes.

*Evaluation.* Since each form of discourse has its own distinct mode of truth-seeking, evaluation of the student as a knower will take a different form in each case. 'Objective tests' will be more suited to forms of knowledge that are either empirically or logically verifiable. 'Essays' and 'research reports' may be appropriate to history, performance and group discussion to the expressive arts, and so on. It does not seem to be entailed that the knower beomce a lover; a student may have been brought to understand a form of discourse 'from the inside', as it were, without having committed himself to its continued exploration beyond the school walls. If one holds that such a commitment *is* entailed, then one has taken up a normative stance with respect to beliefs about the nature of man that is by no means unchallenged. My controlled variable was that "all men by nature desire to

know" (assumption 2), but this says nothing about the extent of their desire to act on that knowledge.

## VIII

In section IX I will attempt to relate the five approaches to recent curriculum rationales. Before doing so, however, a comment is in order on their current status in theory of knowledge. The ESSENTIALIST approach has much in common with objective Realism and Idealism, powerful in the history of philosophy, ravaged but not routed by the Logical Atomists and Positivists of the early twentieth century. As epistemologies they have weathered better than their metaphysical counterparts, in that they do more to preserve the essential quiddity of things than more relativist rivals, but the certainties they once affirmed have been greatly eroded by radical restructuring in many disciplines and by the disposition of many to speak of theoretical explanations as 'models' or convenient fictions rather than representations, in some sense, of truth.

The POSITIVIST sketch approximates the Positivism of the 1920s' which worked for the development of two precise sources of propositional language, logic and science. Criticism of the inability of the Positivist verification principle to verify its own truth pointed to the concealed normative stance that lay behind it. The later Wittgenstein bore philosophy beyond Positivism but it still has champions in philosophy of science and educational research. The zeal to work always from tight, operational definitions and, at one remove, specific 'behavioral objectives', has Positivist origins.[6]

The SOCIOLOGICAL approach came into epistemology from the work on 'sociology of knowledge' by Karl Mannheim.[7] It continues as a position in philosophy of social science, emphasizing the relativity of truth about social realities. The danger in denying the possibility of objectivity is that it may lead to epistemological anarchy and the exaltation of slogans above statements.

Not discussed separately was the Pragmatism of John Dewey. Although Dewey claimed that he was mapping a new logic of enquiry that would get away from the static truth criteria of traditional Realism and Idealism,[8] I would argue that his actual epistemology was vague[9] and combined a POSITIVIST view of the natural sciences[10] and a SOCIOLOGICAL view

[6]See, for example, May Brodbeck, "Logic and Scientific Method in Research on Teaching", in N.L. Gage (ed.), *Handbook of Research on Teaching*, (Chicago: Rand McNally, 1963), pp. 44-51.

[7]Beginning with *Ideology and Utopia: an Introduction to the Sociology of Knowledge*, trans. Louis Wirth and Edward Shils, (New York: Harcourt Brace, n.d.)

[8]John Dewey, *Reconstruction in Philosophy*, (New York: Mentor, 1950), p. 113.

[9]Bertrand Russel certainly thinks this is the case, and comments in one place: "'Truth' is not an important concept in Dr. Dewey's logic". See "Dewey's New *Logic*" in Paul Arthur Schilpp (ed.), *The Philosophy of John Dewey*, (Evanston: Northwestern University, 1939), p. 144.

[10]"The true means the verified and means nothing else". *Reconstruction*, p. 131.

of the human sciences.[11]

The EXISTENTIALIST view does not purport to be a complete episte-
mology. I have elsewhere characterized the many-sided phenomenon of
Existentialism as "a wave of protest, a type of diagnosis, a mode of investi-
gation, but not a new synthesis . . . Here is another and important way of
looking at your presuppositions and convictions".[12] It has not made much
headway amongst Anglo-American epistemologists, though Polanyi's notion
of 'personal knowledge'[13] carries some weight on its behalf, and via Sartre
and Buber it has made some impact on some curriculum theorists, as we
shall see.

The FORMALIST sketch draws on the later Wittgenstein's notion of
'language games', which has had wide influence on most philosophical
fields of enquiry. For theory of knowledge the impact has been less momen-
tous, possibly because epistemology has always been concerned in part of
its task to fathom the linguistic behavior of words such as 'know' and 'be-
lieve'.[14] By implication, however, the doubts cast on the dogmatic epistemolo-
gical stance of Positivism by 'ordinary language analysis' open the door for
the serious reconsideration of neglected realms of discourse, without pre-
judging whether they tell us anything 'meaningful'.

In other words, the FORMALIST approach puts the problem of values
back where it belongs, in the field of ethical enquiry, where decisions must
be made prior to taking up epistemological and empirical positions in rela-
tion to curriculum design.

## IX

The wave of excitement about 'the new education' which gathered force
in Europe and the U.S.A. in the late 19th century focussed on the pedagogy
of J.F. Herbart, professionally a Realist philosopher. The associationist
psychology he developed was directed to imparting a prescribed body of
material, laid out under a taxonomy of knowledge categories representing
the 'many-sided interests' of an educated man.[15] It was an ESSENTIALIST
approach; the things to be associated were 'ideas', and "filling the mind . . .
[was] to be the general result of instruction".[16] John Dewey was later to
refer to this as a "schoolmaster's psychology", criticizing the 'Absolutism'
which led Herbart to suppose he could dictate what from the past the child

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[11]E.g. his tribute to Darwin for having "conquered the phenomena of life for the principle of transi-
tion, and thereby freed the new logic for application to mind and morals and life." *The Influence of
Darwin on Philosophy*, (London: Bell and Sons, 1910), p. 8.

[12]Brian V. Hill, "A Dash of Existentialism", *The Forum of Education*, vol. 24, Sept. 1965, p. 111.

[13]Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (London: Routledge
and Kegan Paul, 1958).

[14]For an example of epistemology in a consciously analytic mode see A. Phillips Griffiths (ed.), *Know-
ledge and Belief* (London: Oxford University Press, 1967).

[15]J.F. Herbart, *The Science of Education*, trans. H. and E. Felkin, (London, 2nd ed., 1897), pp. 154-190.

[16]*ibid.*, p. 192

needed to know by way of *content*.

Yet Dewey's own curriculum approach was equally absolutist, in relation to the *method* of knowing. In POSITIVIST mould, he insisted that secularization was the systematic broadening of scientific method until it applied to all spheres of life including art and morals.[17] And again: "The postulate of moral science is the continuity of scientific judgment".[18] Such a limitation on content and modes of knowing could degenerate easily into the random activity Dewey criticized in many Progressive schools,[19] or the equation of inter-personal relations with efficiency in collective problem-solving,[20] or the restriction of 'scale' commented on by Holmes when comparing Dewey with Whitehead.[21] But Dewey was undoubtedly right in saying that the foundations of knowledge had been shaken up and classical ESSENTIAL-IST authoritarianism was no longer viable.

In the early decades of the 20th century, the 'Scientific Movement in Education' became the slogan for a curriculum approach that was both POSITIVIST and SOCIOLOGICAL. The 'frequency lists' for vocabulary developed by E.L. Thorndike from the words most commonly used by children, the life activities listed by the N.E.A. report of 1911, and other similar approaches presumed that method was the key, and that content could be kept value free and at the same time society-oriented by the scientific procedure of sampling. This simplistic view of curriculum norming contributed to the demise of the Progressive Movement. Positivism is not rich enough to sustain a balanced life, and 'sociologism', as Maritain terms it,[22] substitutes social adjustment and consensus for the awakening of a critical understanding and a search for truth.

In the first decades after the Second World War, traditional ESSENTIAL-IST attitudes contined to underlie many private and public school syllabuses, receiving something of a boost from the 'Great Books' plan launched at college level by Mortimer Adler. POSITIVIST assumptions, on the other hand, underlay the steady development of techniques and educational hardware, and the relativistic, programmatic elements in the SOCIOLOGICAL view were championed vigorously by Theodore Brameld, who worked in his 'Reconstruction' for the planned development of a democratic personality-type committed to action through social consensus.[23] Brameld claims to

[17]See for example *Democracy and Education* (New York: Macmillan, 1916), pp. 333f and 392f, and *Reconstruction*, pp. 22f.

[18]John Dewey, *Problems of Men*, (New York: Philosophical Library, 1946), p. 96.

[19]John Dewey, *Experience and Education* (New York: Macmillan, 1938), esp. chaps 3 and 4.

[20]Consider George F. Kneller's impassioned criticism of this tendency, in "Education, Knowledge, and the Problem of Existence", *Harvard Educational Review*, vol. 31, Fall 1961, p. 433.

[21]Henry W. Holmes, "Whitehead's Views on Education", in Paul Arthur Schilpp (ed.), *The Philosophy of Alfred North Whitehead*, (Evanston: Northwestern University, 1941), p. 636.

[22]Jacques Maritain, *Education at the Crossroads*, (New Haven: Yale University Press, 1961), p. 15.

[23]See, for example, *Towards a Reconstructed Philosophy of Education*, (New York: Holt, Rinehart and Winston, 1956).

have adopted Dewey's position and followed out the logic of his social views, which is a more tenable claim than many Experimentalists like to admit, for SOCIOLOGICAL epistemology is intrinsically programmatic. Someone, somewhere, has to say what kind of society it is intended to adjust students to.[24] It is doubtful whether many actual curricula would lay claim to Bramheld's paternity, but a book which has been influential at the working face, entitled *Fundamentals of Curriculum Development,*[25] is somewhat akin in spirit.

The EXISTENTIALIST viewpoint has not made a marked impact on curriculum design. This is partly because it is not a system of thought so much as a mode of viewing all data, needing to infuse rather than to direct planning labours. Through the writings of leading Christian professors of education in Britain, Kierkegaard and Buber have been expounded to some good effect.[26] but the interest of American educators, according to Morris,[27] has been little more than academic. However, one sign of appreciation at the curriculum level is the inclusion by Philip Phenix in his six 'realms of meaning — a curriculum rationale for general education — of one called the 'synnoetic realm', which he characterizes by citing Buber's *I-Thou* concept and Polanyi's notion of 'personal knowledge'.[28] It is perhaps in some such complementary way as this that we should look to the EXISTENTIALIST epistemology for guidance in designing a balanced curriculum.

Another interesting viewpoint in the 1950s was expressed by Broudy, who, criticizing the traditional subject-matter curriculum and the Progressive activity curriculum, commended the seeking out and cultivation of "those forms of intelligent behavior that are found in all men".[29] These were spelled out as symbolic habits of knowledge-seeking and knowledge-using, and habits of enjoyment, developed through the mastery of subject matter. Wynne labelled this a 'Basic Subjects' rationale[30] suggestive of an ESSENTIALIST epistemology, which is confirmed by the author's ex-

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[24]A part of Dewey's reply to this would be the distinction he drew once between "the *planned* society (and) a *continuously planning* society", in Joseph Ratner (ed.), *Intelligence in the Modern World: John Dewey's Philosophy,* (New York: Random House, 1939), p. 431. But I would claim that Dewey does not avoid normative partisanship thereby.

[25]B.O. Smith, William O. Stanley and J. Harlan Shores, *Fundamentals of Curriculum Development* (New York: World Book Co., 1957).

[26]E.g. M.V.C. Jeffreys, *Mystery of Man,* (London: Pitman, 1957); A.V. Judges, "Martin Buber", in A.V. Judges (ed.), *The Function of Teaching,* (London: Faber and Faber, 1959p, pp. 89-108; and W.R. Niblett, "On Existentialism and Education", *British Journal of Educational Studies,* vol. 2, May 1954, pp. 101-111.

[27]Van Cleve Morris, "Existentialism and the Education of Twentieth Century Man", *Educational Theory,* vol. 11, Jan. 1961, p. 52.

[28]*Realms of Meaning: a Philosophy of the Curriculum for General Education,* (New York: McGraw-Hill, 1964), p. 28.

[29]Harry S. Broudy, *Building a Philosophy of Education,* (Englewood-Cliffs, N.J: Prentice-Hall, 1954), p. 157.

[30]John P. Wynne, *Theories of Education: an Introduction to the Foundations of Education,* (New York: Harper and Row, 1963).

plicit espousal of Realism on page 143 and by the Aristotelian sense in which he uses the term 'habits'. But it is an ESSENTIALISM much more adapted to the variety of knowledge forms that constitute the modern mind, and the varied means required to seek, use and enjoy them.

The launching of the first Sputnik heightened discontent with curricula oriented to social problem-solving, and revived interest in the teaching of organized subject-matter. This was not always good in that it often meant an unthinking reversion to traditional ESSENTIALISM. However, Phenix, working like Broudy from a Realist position, and responding also to EXISTENTIALIST and FORMALIST insights, proposed as organizing principle the notion of six 'realms of meaning', namely, symbolics, empirics, aesthetics, synnoetics (mentioned previously), ethics and synoptics.[31] His schema compares interestingly with the seven 'forms of knowledge' spelled out by Hirst, a British philospher steeped in the FORMALIST approach.[32]

At one remove from the level on which these latter writers have been theorizing, Bruner has developed the supporting notion that each of the fields of knowledge has a store of basic structures and principles, which, subject to appropriate adjustment to the ways children learn at different ages, may be taught at all levels.[33] This view is very much attuned to the explosion of knowledge and the need to find a teaching strategy that economizes on sheer content. The result is of special interest not only to psychologists but to epistemologists, so that Bruner is something of a mediator between the learning theorists and philosophers such as Hirst. Bruner seems indeed to assume that organization by subjects is the natural way to proceed, which is far from obvious.

This brief review of trends highlights the considerable dependence of curriculum theory on epistemology, for the examples cited, in most instances, purport to draw their normative recommendations from wider sources, but may in fact be usefully discussed and compared purely in terms of our simplified epistemological models. However, a rationale which is basically epistemological in origin can only go part of the way to dealing with the value problem in curriculum. It is a necessary, but not a sufficient condition for curriculum planning to proceed. Epistemologies that are covertly normative, such as the POSITIVIST, may appear to satisfy the need for integrative values precisely because they are at base normative. There was, for example, a time when Dewey alleged that Pragmatism was free of normative worries because "no theory of Reality in general . . . is

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[31]Phenix, as cited in footnote 28.

[32]Paul H. Hirst, "Liberal Education and the Nature of Knowledge", in Reginald D. Archambault (ed.), *Philosophical Analysis and Education,* (London: Routledge and Kegan Paul, 1965), pp. 113-140. It should be mentioned that another Analyst, James E. McClellan makes out a strong case for denying the unity and stability attributed to the so-called 'disciplines' by writers such as Phenix and Hirst. See "Knowledge and the Curriculum", *Teachers College Record,* vol. 57, Mar. 1956, pp. 410-418.

[33]Jerome S. Bruner, *The Process of Education,* (Cambridge, Mass: Harvard University Press, 1960), p. 7.

possible or needed",[34] but this claim could not be sustained. The world-view and value theory of Pragmatism are readily describable, as Geiger proved by his sympathetic exposition in the 54th N.S.S.E. Yearbook.[35]

It is also implied in the writings of some curriculum theorists that they have taken up a professionally neutral position, from which they await the go-ahead from the school's sponsors. "You tell us what you want", is the attitude, "and we have the technology to give it to you."[36] I suggest that if this 'experiment' demonstrates anything, it is that such neutrality is decidedly implausible, even at the epistemological level. To cite one timely example, the current drive to require teachers to formulate all goals as specific 'behavioral objectives' runs directly counter to the EXISTENTIALIST approach and is only relevant to some forms of knowing on the FORMALIST account.[37]

The merit that this author sees in the FORMALIST approach is that it is as nearly neutral as one could be, granted the initial assumption that the main job of schooling is to teach children to acquire and use knowledge. This therefore pushes the value problem one stage further back, for having spelled out criteria for knowing and verifying in each of the major recognized domains of knowledge, the epistemologist rests his case and awaits decisions at a higher level concerning priorities and balance. This is surely as it must be, for Scheffler rightly points out that "value-determination cannot plausibly be considered the exclusive responsibility of any specialist".[38] Hence, epistemologists who speak from within a more inclusive philosophical perspective, as do Broudy and Phenix, Maritain and Jeffreys, must be prepared openly to commend their normative views to the sponsors of the school as well as the professionals. If it is believed that the sponsors are not sufficiently aware of the issues, why then, as Robert Lowe said after the passage of the 1867 Parliamentary Reform Bill in England, "we must educate our masters."

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[34]Quoted in J. Donald Butler, *Four Philosophies and Their Practice in Education and Religion,* (New York: Harper and Bros, 1951), p. 429.

[35]George Geiger, "An Experimentalist Approach to Education", in N.S.S.E. 54th Yearbook, Pt 1, *Modern Philosophies and Education,* (Chicago: University of Chicago Press, 1955), pp. 137-174.

[36]See, for example, Leonard Gardner's comments on Ralph W. Tyler in "The Relation of Philosophy to Education", *Educational Theory,* vol. 4, Jan. 1954, pp. 54-57.

[37]An example of a sophisticated ESSENTIALIST reacting strongly to this fad is Harry S. Broudy, "Can Research Escape the Dogma of Behavioral Objectives?" *School Review,* vol. 79, Nov. 1970, pp. 43-56.

[38]See, for example, Leonard Gardner's comments on Ralph W. Tyler in "The Relation of Philosophy to Education", *Educational Theory,* vol. 4, Jan. 1954, pp. 54-57.