15

The Tasks of the Curriculum Theorist

Obtaining a perspective of the curriculum theory movement, if one exists, is somewhat difficult. It is hard to tell whether the search for something called theory is the curricularist's attempt to establish prestige in academic circles, whether he has simply been caught up in the behavioral science web and its increased concern for theory, or whether the search really indicates a maturing search for greater rationality. The quest for perspective is further complicated by the educator's failure to discriminate among the various phenomena with which he is concerned. Within the past several years, several books and writings concerned with educational theory have become available.' Might these efforts also be categorized as curriculum theorizing or necessary for curriculum theorizing? With the publication of the report of the Committee on the Criteria of Teacher Effectiveness in 1952 and 1953, and the subsequent *Handbook of Research on Teaching*, there has been increased concern for and systematization of research on teaching.[2] Might these also be considered curricular from any one point of view? If they are, they have not been well integrated into the curricular theory literature. This divorce probably implies nothing more than the failure of incipient curricular theorists to get control of relevant data and resources.

This is to be expected, for attempts to theorize about curricula are recent. Determination of how recent, of course, is a function of the definition of curriculum and theory. My own preference is to date

the beginning of the current interest to the 1947 Conference on Curriculum Theory held at the University of Chicago.[3] However, as Herrick and Tyler describe their efforts they would evidently date the origin much earlier, for they state "that very little progress has been made in the realm of curriculum theory in the past twenty years."[4] Today, twenty years later, the same comment could be made, that little progress has been made in the last twenty years.

The current state of the curricularist's interest in theory is illustrated by three recent documents.[5] All three documents point to the lack of organization of the ideas and efforts related to theorizing about curriculum and to the problem curricularists have with their own history of theorizing. The bibliographies in each of the three documents serve as a good starting point for a beginning awareness of this history.

There are those educators who would seek clarity about the incipient field and its potential direction by attempting definitions of *theory* or of curriculum. I believe, however, that definition is a stage along the way, not necessarily a beginning point. In fact, if the notion of theory is taken as a starting point, the possibilities of being led astray are increased. Certainly the intellectual community that has made the most laudable theoretical progress has been the scientific community. It seems, therefore, that if curricularists wish to increase their theoretical sophistication they should model the efforts of the scientists. The appropriate literature is vast and very informative.[60] In fact, our brethren in educational administration have made good use of such theory.[7] Yet curriculum is a somewhat different phenomenon, and theorizing about it has brought out the fact that the curricularist must be concerned not 'only with descriptive or scientific theory, but also with prescriptive or normative theory. That is, he who would talk about curriculum must do more than describe what goes on; many people want him to issue imperatives about what should be done. This mix up between descriptive and prescriptive theory compounds our problems and leads to a continuation of the old theory-practice distinction thus sanctioning old saws such as "that won't work, it's just theory" or "he is no good in the classroom, for he is just a theoretician." It seems more promising to start with the interrelationships among three different activities engaged in by curricularists.

There are those who engage in educational practice: teachers curriculum consultants, and supervisors. There are those who conduct empirical research about curricular matters. These can be professional, researchers, teachers, college professors, or advanced

students. There are those who talk and write about curriculum. They can be creators of new ways of talking about curricular matters, or people simply using the language of others. Practice, research, and talking (or writing) are not three distinct occupations. Indeed, the same individual could engage in all three occupations. In fact, a person who is somehow involved in matters of curriculum usually talks and practices, or talks and does research, or he may simply practice and do research without talking. The truism that there is practice, research, and talk in curriculum is not the point. The point is to untangle the relationship among these three activities, which is not an easy task or at least not an obvious task. The untangling becomes more difficult and at the same time more illuminating if we recognize that these relationships are historical and cannot be disentangled once and for all. That is, it is well to make the working assumption that there are evolving dialectical relationships among practice, empirical research, and language. How can the curricularist articulate the relationship between his practice and his language, or between his empirical research and his language, or between his practical actions and responsibilities and his research?

Language

What is theory? What ever it is, it seems to be rooted in the language that we use to talk about what we do, and it is this language web that must be our starting point. Like a spider web, it is sticky, useful, beautiful if we are not caught in it, and all of a piece, for if one corner is touched, the whole quivers. Many curricularists are flies caught in the web of someone else's language. Some are spiders, weaving webs as a consequence of their inherited ability But the unique characteristic of the curricularist is that he is a human being: able to be caught in someone else's web, able to make his own, but more significantly, able to stand back and behold its beauty and form, to study its structure and function, and to generate new weblike patterns. Man and his language form a paradoxical relationship. He is inevitably caught in it, yet as its creator he can seek to transcend its confines, but in so doing he builds new snares which are equally confining.

The curricularist uses language. Some of us just talk, and the talk is not related to anything other than someone else's talk. Some use language in a variety of ways as they engage in their practical thing, whether it be teaching or supervision, or any number of other activities associated with curriculum. Some use language as they

engage in research about curricular phenomena. It seems to me that one of the tasks of the theorist is to identify the various situations in which we use language, and to find categories that describe the various functions our language serves in those situations. Having done this, it might be possible to tease out the relationship between language, practice, and research. Then perhaps we can undertake some historical studies that will provide the kind of historical awareness necessary for men who would be free in their world building. Without historical awareness we are apt to remain caught in a language web of our own or someone else's making.

The Use of Language by Curriculums

The search to identify the various curricular situations in which language is used and the categories to describe this language is necessary because the curricularist has too frequently assumed that his language is all of a piece. The many books written about curriculum contain a wide range of language forms. Criticism has not led to cumulative refinement because the critics fail to recognize the diversity of language usage. The failure to recognize the unique contribution of a Smith, Stanley and Shores, of a Stratemeyer, or of a King and Brownell, is partially because curricular critics have not separated out the various types of language in such proposal type books.[8] Furthermore, the curricularist's search for the curriculum theory, or a one-dimensional way of talking and writing about curricular phenomena, hides the fact that different educators-say teachers and principals, or teachers and textbook writers, or supervisors and the mass media romantic critics-use language quite differently because their intentions and systems of relevancies differ. Unless we can begin to differentiate among the various uses and categories of curricular language, we will not be able to refine and polish any of it. What follows then is but one attempt to identify a series of categories for distinguishing among the contexts and uses of curricular language. The categories are meant to be suggestive for further inquiry; hence their values and limitations will not be pressed at this time. The categories are not new or original but are common distinctions to be found in a variety of literature.

Curricularists, whether practitioners, researchers, or simply talkers, use language to describe curricular events or phenomena. We need not at this point get involved in attempts to identify or define curricular events or phenomena, for these attempts would push us to a kind of rigor inappropriate for this stage of inquiry. Teachers, for instance, talk in a descriptive way about what they do in classrooms.

Some of the research on teaching is an attempt to build a *descriptive language* for talking about what goes on in classrooms.[9] Some of the language used by Ashton-Warner in *Spinster* is descriptive of what went on in her classroom. But there are other phenomena or events that are also considered curricular and are described in one way or another. Description, however, need not be of events and phenomena in a given place or time. Imaginary events or phenomena-those wished or those dreamed can also be described. In other words, *descriptive language* can be a link between a reality and an image or a dream; between a present and a future, or a future and a past. The language used to describe what could be is also or can be the language used to describe what is, and vice versa. The limitations of the educational imagination could very well be a consequence of the limitations of the language used to describe present events or phenomena.

Another form of talk used by curricularists is *explanatory language.* We try to give reasons for what occurs, to establish causes. Descriptive language permits one to skate linguistically over the: surface of events and phenomena, whereas explanatory talk digs; below the surface. *Explanatory language* seeks to explain why something occurs or how it occurs. It is usually concerned with postulated concepts and inferred relationships. For instance, the term "learning" cannot be used to describe anything; it is postulated concept to explain a presumed relationship between two events at different times: a change in behavior. Much of the language used by curricularists, particularly that coming from psychology and the behavioral sciences, is explanatory language. To describe with explanatory language is impossible, which is probably why curricularists have a rough time talking about practice with the language of learning, and why they have been preoccupied with a pseudoargument about whether to use behavioral definitions of outcomes. It would be fascinating to establish how frequently the curricularist attempts to use explanatory language to describe what goes on or what might go on.

Very close to and perhaps even similar to the use of explanatory language is the use of *controlling language.* We use language to construct and manipulate things, events, phenomena, and people; we use it to predict what might happen and thus to determine events that become part of a cause and effect chain. The *language of control, manipulation,* or *prediction* is essentially the bringing together of descriptive and explanatory language. We talk about how to get from what is to what might be. To do this language is needed

to describe what is and what will be and to articulate the inferred causal linkages between the two. The language of learning is an auxiliary symbol system to serve this in-between function, and if tied to a good descriptive language it enables us to control events or phenomena in such a way that we can predict, within statistical limits, what might happen.[10] In the *controlling language* of curriculum, however, little attention is paid to the differences between descriptive language and explanatory language, much to our loss of vision and power.

If the language used by curricularists was totally language of description; explanation; or control, prediction, and manipulation, our analysis would be relatively easy, for these are forms of language common to scientific and technological endeavors. Fortunately, or unfortunately, depending on the friends you keep, the person engaged in occupations associated with curricular phenomena also uses language in other ways. He uses it to *rationalize* or *legitimize* his actions. As he acts in a certain way or creates a given situation, he frequently needs to reassure someone, perhaps himself, that he knows what he is doing and that he has a right to do it. He uses a *legitimating language,* which serves to establish his claim that he knows what he is doing or that he has the right, responsibility, authority, or legitimacy to do it. *Legitimating language,* or the language used to rationalize action, can be interpreted as an appeal to some social group for acceptance of the rightness or appropriateness of the action undertaken. Language used to legitimate is addressed to someone else who is in a position to judge professional adequacy and competency. Explanatory language can be used to legitimate action. However, explanation of the possible causes of or consequences of action might not be accepted by the judging group as sufficient or even necessary rationalizations. Language appropriate for the legitimating action ties the reasons for the action into the functional value system of the community to which the claim is addressed. Statements of educational objectives or goals are frequently uttered as claims for legitimation. The attempt to translate goals and objectives into behavioral objectives is an attempt to shift from legitimating language to descriptive language, so goals and objectives can be tied into the language of control and manipulation. However, other forms of legitimating or rationalizing Ianguage could be identified easily in educational discourse.

The curricularist not only seeks to legitimate or rationalize his actions, he also seeks to convince or influence others to undertake similar actions. That is, he uses language to prescribe a course of

action or to influence others to undertake similar actions. Such *prescriptive language* is not simply descriptive of a future course of action; it carries with it an imperative, a command, or an attempt to impose a course of action. *Prescriptive language,* while often couched in the language of ethics and morality, is, nevertheless, primarily political language inasmuch as it seeks to influence and to involve others in desired or valued action." Hence, prescriptive languague requires attention to the rhetorical uses of language, and to the characteristics-of the recipients or listeners.

Finally, language used by curricularists frequently serves as a symbol of cohesiveness or of belonging to a particular community. It becomes, in some instances, the *language of affiliation,* which serves as a vehicle and token of cohesion. Mastering the language is frequently part of the initiation into the community, and proficiency with the language indicates one's belonging to the community For instance, the 'increased use of behavioral science language in curriculum can be interpreted as an attempt by curricular&s to belong to the social scientific community. The use of slogans in education also symbolizes solidarity and membership in a given community. A look at the language formerly used by curriclslarists could produce an awareness of the communities and subcommunities that have existed in the overall field. The language centered around the slogans "the whole child," "democratic teaching," or "structure of the disciplines" points to collegial relationships that exist or that someone wishes to establish. The language associated with Bruner's *The Process of Education* might be interpreted as a significant effort to find a way of talking about education that brings the academician, the psychologist, and the educator into a single community of concern and Ianguage.

These six suggested categories of language usage in curriculum-descriptive, explanatory, controlling, legitimating, prescriptive, and affiliative- are not meant to be discrete. They are offered as pointers to various ways in which curricularists use language in a variety of situations. The categories do not necessarily depend on the structure or form of the language; rather they depend on the use of language in a particular time and place. To explore the interrelationships among these six categories would pull me away from my intention, which is to explore the tasks for the curricular theorist. My point so far is to suggest that the language used by the curricularist in his talking and writing takes many shapes or at least serves various functions. It seems to me that one of the tasks of the curricular theorist is to articulate the uses of language within the

curricular domain, and to identify the various modes of language used. When this is done, the curricular theorist can more readily critique the language forms used in curricular discourse.

The Sources and History of Curricular Language

Language is never found ready-made in the world of nature. It is a man-made phenomenon, and its source is the creative efforts of people. Furthermore, it is never a complete or finished system or tool of man; it is always in the process of being recreated, which means that it is criticized and scrutinized in a variety of ways, parts of it are dropped from usage, and new usages and terminologies are introduced. It is an evolving form, and thus has a history or past that can be articulated. Individual men are the source of its vitality and its growth, and new ways of speaking by an individual can enliven a system of discourse and open up new possibilities. To recognize language as an emerging form is to accept its limitations and to be alert and receptive to new ways of talking. To be aware of the history of this emerging form and its various sources of novelty and emergence is to increase one's ability to contribute to its vitality.

Curricularists have tended to be ahistorical in the awareness of the various forms and institutions that make up their professional gear. Too frequently our tendency has been messianic. The search is often for the new and permanent vehicles of salvation, and thus we fall prey to bandwagons and the bandwagon mentality. We have a tendency to search for the final solution, and to think that we can discover the one and only best way to talk about curricular phenomena. In so doing, we fail to operate as historical beings and shirk our responsibility for the continual criticism and creation of new language forms and new ways of speaking. To be aware of our historical nature is to be on top of our past, so we can use it as a base for projection into the future. Another primary task of the curricular theorist, then, is to articulate the history of the various language uses that he has and to search for the origins or sources of his expressions and ways of talking. This is essentially a task of intellectual history, and it requires tracing the evolution of our various ways of talking and writing about curricular phenomena.

Even a cursory glance over the language referring to curricular phenomena throughout the years indicates the multiple sources of our language. At various times curricularists have drawn freely from philosophy, theology, psychology and other behavioral sciences, sometimes various humanities and technologies, and often the

commonsense language of nondisciplined people. This will probably always be the case; for except for a very few words or expressions, such as scope and *sequence,* we do not seem to have a vocabulary or language that is primarily our own. Whether we will ever arrive at a unique symbol system that refers to curricular phenomena remains to be seen. This uniqueness is one of the fruits of scientific inquiry.

The curricularist's dependence on a variety of other disciplines and enterprises as the sources of his language creates no insurmountable problem. Indeed, it can be a strength of the field for without built-in structures of criticism and creation, as in an established scientific community, curricular language could stagnate. Our responsiveness to a variety of other fields means that we do indeed have sources of language renewal. The only danger arises from the lack of awareness of our own actions, the recurring failure to achieve historical perspective of the shifts in ways of talking, and the potential entrapment in a given way of speaking. Somehow we must become aware of the sources of our language, and the ways we have generated productive shifts in our ways of speaking. If an historical awareness can be developed, then the dangers of entrapment and obsolescence are less menacing.

At this point the distinctions among the descriptive, explanatory, controlling, legitimating, prescriptive, and affiliative language uses may be helpful. Failure to identify multiple uses of language in curriculum has clouded the relationships between curricular language and the language used in other domains. The untangling of these complex relationships could be approached in a variety of ways. A start might be to articulate the history of one language use, such as the explanatory or the prescriptive, in an attempt to identify its sources at various times. Another start might be to turn directly to the language of a particular noneducational domain, such as psychology, and identify how psychological language has been used or misused to describe, explain, legitimate, or prescribe. For instance, the language of learning is probably not very good descriptive language, but it is handy for certain kinds of explanation and perhaps for certain kinds of control and manipulation. Philosophical language has often been used for legitimating and prescription, but is probably rather ineffectual for explanation. Literary language, such as poetry, might be good for description but inadequate for explanatory or affiliative functions. Historically, dependence on a particular language use is apt to be a function of many different variables. The reason for appropriating the languages of the behavioral sciences today is not simply that these languages offer the possibility of

increased power of control, but that they are also major vehicles of legitimation and affiliation; scientific-technological language has more cash value in today's economic and political spheres. Disregard for the language of theology is only in part a consequence of the circumscribed usefulness of theological language in education; it can also be explained as a subconscious attempt to deaffiliate from religious communities. The deaffiliation from theological language communities illustrates, incidentally, the need for historical awareness. The rupture between theology and curriculum was valid at one point in the history of both curriculum and theological thought. To ignore theological language today, however, is to ignore one of the more exciting and vital language communities. Of course, theological language would not carry much weight as an explanatory language in most circles, and would prove quite ineffectual as controlling language. However, it might serve as descriptive and legitimating language.

Another value of the historical search for our language sources is that language pulled from its primary domain is disengaged from established forms of self-correcting criticisms. In psychology, for example, expressions and terms are constantly scrutinized, empirically and logically, for their validity. Meanings shift and the uses of given words or expressions are altered or dropped as new experimental data accumulate and as explanatory paradigms change. However, when a term, such as *learning,* is pulled out of psychological discourse and used in another realm, such as curriculum, the scientific checks are not brought with it. A word or expression current in curricular discourse might be no longer viable in the parent discourse system. This is also true of philosophical language, and perhaps is also illustrated by the relationships between theological language and curricular language. If curricularists can become historically aware of these patterns of shifting meanings, they can more freely draw on and reject language of other domains.

It seems to me, then, that another task of the curricular theorist is to articulate the history of the languages used by curricularists. Articulating this history would require charting the changes in the various language usages and the relationship of curricular language to language of other domains. Articulation of these relationships would require attention to relationships and relationships that were not established for a variety of social or intellectual reasons. To articulate the patterns of relationships between curricular language and the language in other domains might increase the awareness of our connections to a host of other existing and emerging language communities.

Practice

Within the so-called curriculum field there are people concerned primarily with practice rather than with the language used to think and discourse about practice. The very close relationship between language and practice (an old and significant dichotomy usually formulated as a theory-practice distinction[12]) makes it extremely difficult to conceptualize something known as "pure practice."

What is practice? Whatever it is, it is grounded in an environment constructed by man, and it is a human event occuring within that environment. Dewey provides the support for the focus on environment. In 1902 he stated that the function of the educator is "to determine the environment of the child."[13]. He developed this more fully in *Democracy and Education,* in which there is a special section entitled, "The School as a Special Environment." There he states that "We never educate directly, but indirectly by means of the environment."[14] Analysis seems more generative if the practice dimensions of curriculum are viewed initially as concern for the characteristics of the educative environment. As with the analysis of language, the task is to establish categories for discriminating among the various components of the environments, to identify the actual or potential sources of these components, and to articulate the history of educational environments.

Practice as Educative Environment

Definitions are again a stage along the way, not beginning points. To attempt to define *educative environment* would immediately draw forth old solutions and arguments rather than push us to new levels of awareness. Arguments over the meaning of education have their value, but they can also serve will-o'-the-wisp functions. If the analysis begins with schooling, we need not get involved with definitions of the meaning of education or educative environments for the schools can be looked at historically as a set of components or conditions that shift and change through time.

Obviously, schools are made up of and contain things: material. "Material" consists of books, laboratory equipment, educational media, and programs stored either in print or electronically; but the buildings as well as the furniture are also part of the "thing" environment. In one sense, the curriculum consists partly of the buildup of capital investment in the educative material. For instance development of the reading curriculum in an elementary school cad be construed as the buildup of texts and other reading materials such

as paperbacks, diagnostic and remedial skill materials, and films or audio resources. The development of science curricula in the elementary school can be traced by the shift from science texts to other types of science equipment, e.g., laboratories, and other materials such as film loops. The history of secondary school curricula can be identified, again in part, by the shift from woodworking, metal, and print shops to the capital investment in science laboratories, a greater diversity of library facilities and materials, and the movement from classrooms or groups for thirty students to flexible spaces. One of the significant aspects of today's curricular changes is the increase in the range, novelty, and complexity of educative material.

Another aspect of the educative environment is the language and symbols systems used for discourse among students and teachers within that environment. Discourse systems are major focal points of research and development today. Much of the concern for the structure of the disciplines can be subsumed under the topic of how a language or another symbol system is to be used within the classroom. King and Brownell use Polanyi's notion of a "community of discourse" as a way to specify the disciplined content of the classroom." Phenix's *Realms of Meaning* can be interpreted as a concern for the systems of discourse used to talk about the experiences of people in the world.[16] Smith's work focuses upon the logical dimensions of the language used within the classroom. The material environment-the books, other media, and the architectural structure of the building-determine, again in part, the forms of language or symbol systems used. An arithmetic book specifies how the young person is to use certain symbols in interaction with people in action on or with the environment. Science and social studies materials also specify, in part, the way the student might use language forms to articulate aspects of the world.

A third aspect of the educative environment consists of the patterned or conditioned behaviors of the individuals who live in that environment: teachers, students, and other personnel. The intent here is to point to the stable skills and habits normally associated with roles and institutions rather 'than individuals. Again, the educative environment can be articulated, in part, as a capital investment in human resources, manifest in the conditioned and interchangeable behaviors of school personnel, This does not imply that the uniqueness of the individual teacher has no significant educative value in the classroom or school; it simply means that it is possible to talk about the input and maintenance of given levels and

qualities of human skill and habit. The conditioned patterns consist of symbolic skills, skills of coordinating human action and speech with material, and the habits and skills necessary for social interaction. Administrators can legitimately speak of the need of their system for skilled manpower, and the possibility of building these resources through education of the staff or by bringing in personnel with new or different skills.

Material, symbolic systems, and human resources are organized into identifiable organizational structures. That is, the patterns of relationships among people, things, and discourse or symbol systems are relatively stable through given periods of time and can be identified as particular organizational forms. The various schemes of curricular content are cases in point. The subject matter curriculum can be conceptualized as one pattern of material, symbol systems, and teacher skills, whereas the core curriculum involves different patterns of symbols, things, and human skills. Grouping patterns, such as homogeneous and heterogeneous groups, team teaching, tutorial, and other organizational schema can be described by the different patterns among discourse systems, materials, and human skills.

It seems to me that one of the tasks of the curricular theorist is to focus his attention on the characteristics of the educative environment. This involves primarily the development of a descriptive language that will enable him and other curricularists to catalog and chart the environmental dimensions of practice. It might be said, as indeed Dewey in effect did say, that the curricularist's responsibility is to fabricate an environment that educates. Focusing attention on the components of the environment as distinct from the language used to explain, prescribe, or legitimize them could increase the power of the curricularist to design more effective environments and to see them in historical perspective.

The History of Educative Environments

To see these educative environments in historical perspective and to articulate this history becomes another task of the curricular theorist. There are two aspects of this task. The first is to trace the development of the environmental components within specific arenas of educational activity. For instance, the history of the "teaching" of reading is in part the development of resources for "teaching" reading. The shift in the kinds of books, programmed materials, and teacher skills must be traced, for the history is not simply a shift in ideology. Individualized reading programs, for

example, are functional only when there is a wealth of trade books, a range of skill development materials, and teacher skills of diagnosis and remediation. The designers and distributors of reading materials are as much a part of the history of the teaching of reading as the theorists or researchers. O.K. Moore's talking typewriter is also a part of the history of the teaching of reading. The history of science teaching can also be traced, in part, by the changes in scientific equipment, and the coordination of this equipment with the development of teacher skills and new science language patterns.

Perhaps a more important historical task is to articulate the development of the environmental components within a specific educational situation. I am suggesting partial acceptance of a form of materialistic determinism. Educators have been deficient in ignoring the social theory derived from Marx's work. Environmental conditions are as important determiners of action and history as ideas. Curricularists have traditionally shown their idealistic bias by paying more attention to rhetoric than to things and environmental conditions. Curricularists responsible for given educational situations are often alienated from their own roots because of this concern for ideas to the exclusion of concern for environment. The professional language of the curricularist often pulls him away from his own feelings and his own language, thus alienating him from his own biography. On the other hand, the language used in professional circles and meetings is often not appropriate to the conditions within the local school system and consequently alienates the individual from the history of the situation in which he assumes professional responsibility. To focus on the environmental conditions within specific political and historical situation is to help the curricular practitioner recognize his responsibility for emerging environmental form. To be aware of the possible evolution of existing conditions within a given historical situation is to be aware that curricular change, as environmental criticism and renewal, is a function of capital investments. Historical awareness brings to the fore the problems of environmental obsolescence, including the obsolescence of human skills and habits, and the problems of environmental inertia. With an eye on the evolution of environmental form, the curricularist can more readily accept that one of his responsibilities is the renewal and creation of environmental conditions, such as material, teacher habits and skills, and discourse systems, and their organizational interrelationships.

The Sources of Environmental Components

The search for the sources of the conditioned components of the educative environment points to one of the uses of curricular language. However, the relationship between language and environmental conditions is not simply a one-way street; it is sufficiently important to be pulled out for separate discussion. The concern here is with the nonlanguage sources of environmental conditions, granted that this is an arbitrary, and in part, superficial distinction. Creating an awareness of the sources of educational conditions and how they are brought into specific situations seems to me to be one of the tasks of the theorists. Not all components of the educative environment are a consequence of educational intention or rationality. The intrusion of newer instructional media into schools, such as television, computers, talking typewriters, and architectural forms, are all a consequence of creative actions outside of the educational domain and force the educator to ask how they can be used educationally. Some of the conditioned and relatively fixed patterns of behavior of teachers are also a consequence of forces operating outside educational practice or rationality but nevertheless crucial as components of the educational environment. The same can be said of the existence of various patterns of symbol usage within classrooms and schools. Again, the search to articulate the relationship between environmental components and their sources might be accomplished in two ways. The first is detailing the existence of the various components within a given situation and then searching for the source or determiners of those conditions. second involves scanning the society within which schools exist, and asking how various materials, symbol systems, or human skills have been or can be related to conditions within the school.

Relationships between Language and Environment

The descriptive and controlling functions of language are significant vehicles for developing and introducing new conditions into the environment. The descriptive functions of language facilitate the envisioning of new possibilities by permitting description of conditions that might exist in the future. The predictive and manipulating functions of language permit the construction or fabrication of new environmental conditions by facilitating the specification of environmental variables and their interrelationships. Writers, using story, novel, or hypothetical form, can describe students and teachers in new and strange environments, in the

manner of good science fiction. The language of psychology permits the construction of new environmental conditions, such as the electronic responsive environment and other computer-based devices.[17] Psychological language also enables the conditioning of teacher skills and permits teachers to increase their behavioral repertoire in new and perhaps undreamed of ways. In fact, all of the behavioral sciences increase the curricularist's ability to fabricate new environmental conditions; as do many of the technologies used in communication and other industries.

The reverse relationship also exists. The availability of new conditions can also call forth new language responses. Developing technologies create new environmental conditions that can foster the creation of new descriptive language, increase the need for new explanatory language, and suggest the necessity or possibility of new legitimating and prescriptive language.

A reciprocal relationship exists between language and environment. Language can be used to create new environmental conditions, and new environmental conditions can lead to the emergence of new language patterns. However, these are not dependent relationships, for both language and the various environmental conditions can evolve independently. It seems appropriate that the curriculum theorist should explicate this reciprocity between language and environment.

Practice as Human Event

Curricular practice is not simply concern for the construction of the educative environment; it is also concern for the human events that occur within that environment. The theoretical problem is one of finding, creating, or borrowing a language that can be used to describe and explain human events in educative situations. Within the past several decades the curricularists have been satisfied with psychological language to describe such events, and the language of learning has been the major tool. This dependence on psychological language or the language of other behavioral scientists is almost a direct consequence of the unconscious bias of curricularists for positivistic thought.[18] The problem of talking about human action and events, however, is one that is faced by most disciplined traditions. Other philosophical traditions, including phenomenology and existentialism, and certain theological traditions have been ignored by curricularists. Heideggerian thought seems particularly valuable, as does the language of recent French phenomenologically oriented philosophers such as Merleau-Ponty and Paul[19]

Practice as human event suggests the essentially temporal nature of man and points to the linkage of biography to history as a major educational concern." Curricularists have ignored such questions as destiny, finitude, and the meaning and morality of the influence of one human being on another. We have tended to lump these questions under the problems of learning and objectives and have been inclined to conceptualize the phenomena of interpersonal influence as a technological problem.

But the focus on practice as human event also increases awareness of the event structure of the educator's life. Practice as human event implies that the curricularist is also a human being with a biography in conflict and harmony with other emerging biographies being played out in historically evolving institutions. A concern for the history of practice as human event calls attention to the biographical structure of people involved in educational environments. The life history of the individuals 'involved in educative situations becomes a potential focal point of the concern and suggests the need for conceptual systems that articulate the phenomenon of human power and the dramatic shape of human events. This, it seems to me, is another task of the curricular theorist.

Practice as Design

The practitioner can be considered a designer of educational environments for human events. This is a two-fold design problem. The first is an esthetic problem of composing the environment in such a way that events flow in valued ways. The solution to this problem requires attention to the many qualities of the environment and their interrelationships, and to the durational aspects of the interaction among the individuals within the environment. The second is a political design problem. Fabrication of educational environments is essentially social policy, involving people with different values and intentions. Reaching agreement about the characteristics of a particular environment requires a potential conflict among those concerned and the use of power to shape the environment. The resolution of conflict and the organization of power is essentially a problem of political design.

Curriculum as a form of human praxis, a shaping of a world, means that the responsible individuals are engaged in art and politics. The curricularist has tried to ignore the artistic and political dimensions of his environment building by speaking as if the design problems were essentially problems of technology and authority. Hence the ready acceptance of the science and technology as

educational tools and the frequent coronation of new educational authorities. The task for the theorist is to develop conceptual tools for grouping this twofold design problem. Hence the need for the curriculum theorist to be associated with the artistic and political enterprises and their literatures.

Research

Within the curriculum field there is also research, a term covering a multitude of activities. It is frequently associated with scientific activity and presumed to be related to scientific theory. However, this is not always the case. In fact the word, *research* has a legitimating function, for research is "in," and the researcher's "thing" is valued even if the research itself is not. This legitimating function has even carried to the elementary school level, where even children carry out "research" projects. The word *research* has not been adequately distinguished from the word *search* and the meaning of *re* has been ignored.

What is research? I prefer to identify it as the use of the unformed to create form; as a focusing on the unconditioned in order to develop new conditions; as attention to human events in order that human institutions can be created or evolve; as the dialectical relationship between criticism and creation. In scientific fields it involves creating symbolic statements that point to a presumed reality, withstand empirical criticism in the sense of predicting or explaining the phenomena of that reality, and withstand the logical criticism of the scientific community. Research is not simply gathering of "facts," but the development of a form to "fit" those facts. The data that fit the form consequently can be explained or manipulated by the use of that form. Thus the form is a man-made institution that contains, and enables one to work with, empirical data or unstructured givens. Scientists work with them to uncover new phenomena or empirical givens and to create new symbolic forms. Scientific research in curriculum can be considered, then, as the disciplined attentiveness to phenomena related to curriculum in order to create language forms. These forms enable the curricularist to contain and work with those phenomena for the purpose of uncovering new phenomena and creating new language statements.

Research is not related simply to symbolic statements. Within a much broader context, research is a vehicle by which man keeps all of his institutions viable and vital. Human institutions are intentional. They have been created to contain certain phenomena

and to enable people to work with or use them for human purposes. Through research, people responsible for these institutions criticize them to determine if they reflect the givens to be held and whether they need to be revised or completely destroyed and recreated. The empirical critique determines the adequacy of the form for the facts. The social critique determines the adequacy of the form in terms of the logical, esthetic, economic, and political values of the users.

For curricular language, then, research is a vehicle by which the curricularists criticize existing language and create new language. Existing empirical research methods are appropriate forms of critique for the descriptive, explanatory and controlling language usage. Other research methods are probably necessary for the criticism and creation of prescriptive, legitimating, and affiliative language usages. At this time, I cannot specify the nature of these research methods. I have no doubt, however, that prescriptive language has no longer life or greater permanency than explanatory language. It too must be recreated to fit the givens for which it is to be used. The same is obviously true for legitimating language, for the values it seeks to align and coordinate also shift and must be reassessed.

The conditioned aspects of the environment-materials, symbolic systems, and human skills-can also be conceptualized as institutional forms that "fit" appropriate givens. As institutional forms, they too must retain their vitality and viability. Research can be interpreted as a vehicle by which these forms are criticized and recreated that they might continue to be appropriate to empirical givens and social values. Research is necessary to determine whether materials do indeed serve their intentional function; a form of empirical criticism that need not be mediated by language. Teacher skills are also conditioned forms that embody human intention, and must be amenable to empirical criticism and recreation. Symbolic forms used in curriculum are also intentional forms subject to empirical criticism and social judgment.

Research is the human activity that maintains the vitality and viability of man-made form by subjecting it to empirical and social criticism appropriate to given historical communities. According to Tillich, man must continually protest against existing form lest it become an idol, that new form might emerge.[21] Research is a vehicle of empirical criticism directed at man-made form, so new forms can emerge. In curriculum, language is not the only man-made form; educative environments and their components are also man-made forms that must be protested against that new forms can emerge.

Conclusion

What are the tasks of the curriculum theorist? As is true of all theorists his task is to lay bare the structure of his being in the world and to articulate this structure through the language and the environmental forms that he creates. His responsibility is for the forms that he creates and uses, that they might be controlled by him rather than controlling him. It is necessary that he be conscious of his man-made equipment, his languages, his environmental forms. To be aware of these man-made forms is to be aware of their history, of their sources in human activity and intention, and continually to subject them to empirical and social criticism that they be not idols but evolving tools. All educators attempt to shape the world; theorists should call attention to the tools used for the shaping in order that the world being shaped can be more beautiful and just.

Notes

1. Marc Belth, *Education as a Discipline* (Boston: Allyn & Bacon, 1965); Charles Brauner, American *Educational Theory* (Englewood Cliffs, NJ.: Prentice-Hall, 1964); John Walton, *Discipline of Education* (Madison: University of Wisconsin).
2. "Report of the Committee on the Criteria of Teacher Effectiveness," *Review of Educational Research* 22, no. 3 (June 1952): 238-63; "Second Report of the Committee on Criteria of Teacher Effectiveness," *Journal of Educational Research* 46, no. 9 (May 1953): 641-58; N. L. Gage, ed., *Handbook of Research on Teaching* (New York: Rand McNally, 1963).
3. Virgil E. Herrick and Ralph W. Tyier, eds., *Toward Improved Curriculum Theory,* Supplementary Educational Monographs. No. 7 1 (Chicago: University of Chicago Press, 1950).
4. Ibid., p. iii.
5. *Theory Into Practice* (October 1967); Mauritz Johnson, "The Translation of Curriculum Into Instruction" (Prepared for an invitational presession on curriculum theory at AERA in February 1968); John S. Mann, "Toward a Discipline of Curriculum Theory," mimeographed (Baltimore, Md.: Johns Hopkins University, Center for the Study of Social Organization of Schools, January 1968).
6. James B. Conant, *On Understanding Science* (New Haven, Conn.: Yale University Press, 1947); Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962); Ernest Nagel, *The Structure of Science: Problems in the Logic of Scientific Explanation* (New York: Harcourt, Brace & World, 1961); Michael Polanyi, *The Tacit Dimension* (Garden City, N.Y.: Doubleday, 1966); Ralph G. Siu, *The Tao of Science* (Cambridge, Mass.: MIT Press, 1957); Stephen E. Toulmin, *Foresight and Understanding* (Bloomington: Indiana University Press, 1961).
7, Arthur P. Coladarci and Jacob W. Getzels, *The Use of Theory in Education Administration* (Stanford, Calif.: Stanford University Press, 1955); Daniel

E. Griffiths, *Administrative Theory* (New York: Appleton-Century Crofts, 1959); Andrew W. Halpin, *Theory and Research in Administration* (New York: Macmillan, 1966).

8. B. Othanel Smith, William 0. Stanley, and J. Harlan Shores, *Fundamentals of Curriculum Development* (New York: Harcourt, Brace & World, 1957); Florence B. Stratemeyer et al., *Developing a Curriculum for Modern Living* (New York: Teachers College Press, Columbia University, 1957); Arthur R. King and John A. Brownell, *The Curriculum and the Disciplines of Knowledge* (New York: John Wiley & Sons, 1966).
9. Arno Bellack, *The Language of the Classroom* (New York: Teachers College Press, Columbia University, 1966).
10. Ernest Nagel, "Symbolism and Science," in *Symbols and Values: An Initial Study,* ed. Lyman Bryson et al. (New York: Harper & Bros., 1954).
11. This is a moot point. Cf. Hans Reichenback, *The Rise of Scientific Philosophy* (Berkeley: University of California Press, 195 1); Richard Hare, *The Language of Morals*. (Oxford, England: Clarendon Press, 1952); Patrick Corbett, *Ideologies* (New York: Harcourt, Brace & World, 1965).
12. Nicholas Lobkowicz, *Theory and Practice* (Notre Dame, Ind.: University of Notre Dame Press, 1967).
13. John Dewey, *The Child and the Curriculum* (Chicago: University of Chicago Press, 1902).
14. John Dewey, *Democracy and Education* (New York: Macmillan, 1961), p. 19.
15. King and Brownell, *Curriculum and Disciplines.*
16. Philip Phenix, *Realms of Meaning* (New York: McGraw-Hill, 1964).
17. Dwayne Huebner, "The Implications of Psychological Thought for the Curriculum," in *Influences in Curriculum Change* (Washington, D.C.: ASCD, 1968).
18. Herbert Marcuse, *Reason and Revolution* (New York: Oxford University Press, 1941).
19. See chapter 14; Maurice Merleau-Ponty, *The Primacy of Perception* (Evanston, Ill.: Northwestern University Press, 1964); Paul Ricoeur, *Freedom and Nature: The Voluntary and the Involuntary,* trans. V. Kohak (Evanston, Ill.: Northwestern University Press, 1966).
20. See chapter 14.
21. Paul Tillich, *The Protestant Era* (Chicago: University of Chicago Press, 1948).