

requires political and social reconceptualization and reconstruction. Curriculum and pedagogy derived from such a paradigm enable oppressed persons to realize that they are oppressed and that there are other levels of consciousness to be explored. Concomitantly, it necessitates the realization by oppressors that they do, in fact, oppress and that their acts of repression (unconscious though they may be) return in the form of repression to themselves as well as to the subjugated (Freire, 1970). The point that advocates of critical praxis try to make is that those who are concerned with curriculum cannot defensibly ignore the inequality of access to emancipatory knowledge that socioeconomic class demarcates.

9. New Language Forms. The language that one uses has great influence on both communication and on the way in which one views the world. As was noted in our discussion of Schwab's proposal for a language of the practical, the reference is to a mode of inquiry that invokes world view or outlook. The dominant curriculum language (that of the theoretic, conceptual empiricist, or social behaviorist) reveals a world of persons as potential products who are forged on the assembly lines of schools and are judged by methods of quality control that utilize technical, quantitative jargon. If students do not conform to the factory model of growth, they are reshaped by the military model of control and obedience to authority. If certain socioeconomic groups do not learn well enough, they are expected to exercise a puritanical will-power and "pull themselves up by their bootstraps."

These illustrations of models that pervade our educational thought and practice, it is argued, work contrary to emancipation. They control and dominate. Languages of moral compassion and sensitive aesthetic imagination are needed, as argued by Dwayne Huebner (1975a). New languages of discourse can enable us to think and act with greater perspective and to join together in the creation of pedagogy that emancipates. Such a unity of thought and action is the mainstay of critical praxis.

A COMPARATIVE MODEL OF PARADIGMS

Jurgen Habermas is one of the most widely cited contemporary philosophers who deals with the theory of knowledge and its cultural implications. In *Knowledge and Human Interests* (1971) and other sources (1973, 1975, 1979, 1984), he outlines a comparative analysis of three paradigms of inquiry, which he calls *sciences*. His use of the term *science* is interpreted broadly as study or inquiry. In contrast, the usual use of science in educational literature today is confined to the canons of replicability, validity, parsimony, and reliability and is usually associated with analyses of quantitative data derived from experimental and quasi-experimental research (patterned after such writers as Glass and Stanley, 1970; Kerlinger 1973; Cook and Campbell, 1979; Campbell and Stanley 1966). This rather specific interpretation of science is often referred to as empirical-analytic, positivist, or neopositivist. It dominates educational research literature today.

The conceptual-analytic mode also dominates public policy research with its linear emphasis on policy formulation, implementation, and evaluation, or what we referred to (in Chapter Six) as the treatment specification model. However, we also discussed other perspectives, drawing from Bernstein's *The Restructuring of Social and Political Theory* (1976), especially alternatives from phenomenology and critical

theory. Similarly, the emergent acceptance of alternative paradigms for educational research is portrayed in an excellent collection by Eric Bredo and Walter Feinberg (1982). First, they present articles that illustrate the positivistic approach to social and educational research (such authors as B. F. Skinner, George C. Homans, James S. Coleman); then they proceed to set forth an interpretive orientation (e.g., Nelson Goodman, Peter Winch, Nell Keddie); and finally they adopt a critical approach (Paul Willis, Pierre Bourdieu, Jurgen Habermas).

This portrayal of alternatives parallels Habermas's analysis of three types of science already noted. His analysis is depicted in the modified version of a chart developed by Francine Hultgren (1982) in Figure 7-3. Drawing upon the work of Giroux (1980) as well as Habermas, Hultgren explicates three types of science (empirical-analytic, interpretive, and critical) relative to three characteristics they embody: the interests they serve, the kinds of social organization that they represent, and the mode of rationality they exhibit.

Empirical-Analytic Science Paradigm. Empirical-analytic science serves technical interests. It does not admit to a value or ideological orientation of its own; yet its values are implied by the positivist or theoretic assumptions it represents. Its social organization is that of work. Work implies a hierarchical structure in which certain individuals are granted control over others by virtue of their position in bureaucracies. An instructional technologist, for example, might agree to design delivery systems for conveying information to others, or an evaluator would accept the task of data generation as a means to judgment. They would do so without questioning the ideological ramifications of their work. They are there to do a job.

The mode of rationality holds a faith in the certainty of knowledge generated by

TYPE OF SCIENCE OR INQUIRY	Empirical/Analytical	Hermeneutic	Critical
INTEREST SERVED	Technical	Practical	Emancipatory
SOCIAL ORGANIZATION	Work	Interaction	Power
	MODE OF RATIONALITY		
	Posits principles of control and certainty Operates in the interests of law-like propositions that are empirically testable Assumes knowledge to be value free Assumes knowledge to be objectified Values efficiency or parsimony Accepts unquestioningly, social reality as it is	Emphasizes understanding and communicative interaction Sees human beings as active creators of knowledge Looks for assumptions and meanings beneath texture of everyday life Views reality as intersubjectively constituted and shared within a historical, political, and social context Focuses sensitively to meaning through language use	Assumes the necessity of ideological critique and action Seeks to expose that which is oppressive and dominating Requires sensitivity to false consciousness Makes distorted conceptions and unjust values problematic Examines and explicates value system and concepts of justice upon which inquiry is based

FIGURE 7-3. Habermas's Comprehensive Theory of Knowledge [derived from Hultgren (1982) and based on Habermas (1971), Bernstein (1976), and Giroux (1980)]

empirical-analytic rules. Researchers who operate in this mode see themselves as searchers for lawlike propositions and seekers of verification of such propositions. Most of what they do is based on the value that the universe is explainable by probabilities; yet they hold that knowledge is value free and may be objectified, that is, made into a commodity to be delivered to others. Social reality, as it exists in overt behavior, is taken-for-granted as the basis for truth. To provide knowledge is to reflect the overt behavior or appearance of nature, not primarily the deeper or unseen mysteries that lie behind the surface. The most efficient avenue to this notion of truth is the best one.

Hermeneutic Science Paradigm. Hermeneutic science involves practical interests; recall Schwab's practical paradigm. Its social organization is interaction among persons and the cultural and historical circumstances in which they are embedded. The mode of rationality looks for meaning that enhances interaction with others and events. Education or pedagogy is not pursued by service delivery systems; rather, human beings communicate thoughtful attempts to reveal that which lies deep within them and speaks through them, connecting their being to that of existence itself. Reality is not merely the way things appear; rather, it is created by communication among persons, a process known as intersubjectively constituted meaning. This process both depends on and contributes to historical, political, and social context. Of particular interest to hermeneutic sciences are hidden meanings that participants who are sensitive to language can evoke as a basis for continuous growth.

Critical Sciences Paradigm. Proponents of critical praxis purport to go beyond the hermeneutic by emphasizing more emancipatory political interests. They claim that the search for meaning and virtue is impossible if not accompanied by a social organization that empowers human beings to transcend constraints imposed by socioeconomic class and its controlling ideologies. Meaning and virtue desired by practical interests can only be pursued if pedagogy goes beyond interaction to provide for socioeconomic equity and justice. Thus, critical praxis combines inquiry and action in an attempt to realize and expose that which is oppressive and dominating. Forces of oppression and domination prevent insight into one's own circumstances by contributing to a "false consciousness" or a perspective that maintains the control of dominant groups. Critical praxis combines sensitivity to false consciousness with conscious attempts to perceive and expose unjust values. To identify certain values as unjust, it is imperative that those who engage in critical science explicate the values that they hold. It is their position, furthermore, that empirical-analytic sciences are value laden without realizing it and that hermeneutic sciences do not sufficiently incorporate political action.

SUMMARY

We have discussed the notion of paradigm as a conceptual framework of values and rules that guide inquiry. In curriculum we identified two uses of paradigm. One pertained to the *what* or kinds of substantive topics addressed; the other pertained to the *how* or methods of inquiry used. We noted that Tyler's purposes, learning experiences, organization, and evaluation summarize four topics that have dominated

the curriculum field since its inception at the turn of the twentieth century. We also noted that an empirical-analytic mode of inquiry evolved along with these perennial curriculum topics to create the dominant curriculum paradigm that we shall refer to as the "paradigm of perennial analytic categories." Each of the four substantive topics of this paradigm is presented separately in Chapters Eight through Eleven. Two alternative paradigms that have emerged in recent curriculum literature were introduced: the "paradigm of practical inquiry" and the "paradigm of critical praxis." These are elaborated in Chapters Twelve and Thirteen, respectively.

Finally, paradigms of inquiry were discussed relative to Habermas's theory of knowledge. His three categories (empirical-analytic, hermeneutic, and critical) can be related to the foregoing discussion of paradigms in curriculum literature. The empirical-analytic relates quite directly to the theoretic paradigm that Schwab criticizes and to that which the Tyler Rationale has become as it was merged with positivistic science. Schwab's practical paradigm is largely in harmony with the hermeneutic, except that Schwab is more of a pragmatist in the Deweyan sense than a phenomenologist as is usually associated with hermeneutics. One would do well to turn to the work of Max van Manen (1979, 1982, 1984a,b) for a more thorough phenomenological perspective. The critical perspective is a basis for emancipatory theorizing (e.g., Apple, 1979; Apple and Weis, 1983; Giroux, 1983).

COMMENTARIES

The guest commentators have been asked to keep their remarks on this chapter brief because the next eight chapters relate to specific dimensions of this one. Thus, they will confine their comments to matters of overview.

Intellectual Traditionalist

As long as we are discussing new terminology, I want to add an important point about the label bestowed upon me by the author. I am worried that it might be confused with the ordinary use of the term *traditionalist*, which is more commensurate with traditionalist used by Pinar (1975). Both have been clarified in this book, but I want to reemphasize the point because to equate intellectual traditionalist and traditionalist would be a *most serious error*. We are poles apart. I am in favor of a liberal education for all. The *traditionalist* of everyday educational discourse simply refers to strictly disciplined, subject-oriented schooling of the recent past. Pinar's *traditionalist* who includes such educators also takes society and its values for granted as they remain unreflectively instrumental in dealing with curriculum problems. Such traditionalists are both technical and concerned with liberal arts in name only, if at all. Traditionalism is a banal and hollow form of curriculum if it is not intellectual. In contrast, I draw upon the great intellectual traditions, the best literatures and ideas humanity has produced.

As for the topics of this chapter, I find the Habermas theory of knowledge compelling and interesting. It strikes me as a sad commentary that it is so seldom realized that interpretive and critical studies are much older and more venerable than are the empirical-analytic. Yet advocates of the latter (most education researchers, I gather) decry scholars who write from hermeneutic or critical perspectives as uninitiated