REVIEW ESSAY

Carr, W. & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research.* Philadelphia: Falmer Press, 249 pp, $24.70 (Can.) (paper).

Carr and Kemmis' book raises an important question about educational research that troubles recent work in this field. The question is whether educational research deliberately structured along paradigmatic lines is a feasible approach for investigations into curriculum. The paradigmatic nature of this educational research is to encourage practicing teachers to become researchers because it is assumed that effective research is best conducted by individuals who are involved in real educational problems. This view is founded on the belief that people who are involved in real situations are the ones that can best do research because they define the reality of problems. *Becoming Critical* explores and develops the rationale for the "teacher as researcher" movement so that what is termed "action research" might have a promising future.

The book presents a rationale for the "teacher as researcher" movement which claims that informed understanding about the practice of teaching emerges from reflexivity on the part of practitioners. The argument is grounded in critical theory or what is termed the critical-reflective view of research. Carr and Kemmis suggest that research and theorizing have been ineffectual in improving the quality of teaching because the philosophical view of research has significant deficiencies which result in curriculum being misunderstood. This argument focuses on a philosophical justification of teachers having a special role as researchers *and* the most plausible way to construe teachers' research is a form of critical social science.

Thus Carr and Kemmis lay out an argument where they must demonstrate that educational research is not the exclusive preserve of experts but it is also the domain of practitioners. To do this Carr and Kemmis argue for a shift in the way knowledge is viewed from an empirical-analytic tradition where you have the expert/novice split to a view where knowledge is created by people in situations and it is best understood by the participants in such situations (Jacknicke & Rowell, 1987).

Carr and Kemmis' preface tellingly provides their reasons for writing *Becoming Critical.* Briefly, the authors are dissatisfied with the way educational research is divorced from its philosophical and historical roots; they are convinced that current conceptualizations of the relationship between theory and practice can no longer be justified and that action research grounded in critical theory is the way to bring research and the professional development of teachers together. Consequently the purpose of the book is to argue for a rationale of teachers as researchers and counter the argument that research is the preserve of experts. To do this Carr and

Kemmis conceptualize their task in terms of paradigms and argue that previous paradigms are limited for a variety of reasons. The structure of their argument is an example of what Hammersley (1984) calls the paradigm mentality. Although I am not in complete agreement with Hammersley, what he says is significant for Carr and Kemmis' work. I will return to this point later in the review. For the moment let us raise the question of the overall reasonableness of Carr and Kemmis' central claim and how they argue the point.

In chapter one, a point is made of drawing a sharp distinction between theoretical and practical matters and suggesting the distinction depends upon these concepts being understood from an intellectual tradition in which such concepts are embodied. Habermas' (1971) tri-paradigmatic framework provides a structure for Carr and Kemmis' work as a whole, and thus when theory and practice are understood from an empirical-analytic view, they are dichotomous. This leads to the expert/novice split (Aoki 1986). In hermeneutic science, the two concepts are brought closer together and interpreted to be social constructs, thus they are not totally separate. In critical science the two concepts involve a dialectical relationship in which one influences the other as in the concept of praxis. It is this attempt to understand education theory and practice that brings a focus to the book. The task of understanding becomes one of providing an overview of dominant views of theory and practice, critically examining these views, outlining different images of teaching suggested by these views, and finally developing a philosophical account of theory and practice that justifies the "teacher as researcher" movement.

As part of that process, the authors provide a synopsis of the history of the study of education according to Western intellectual traditions. This synopsis is captured in what are called "Eight General Traditions in the Study of Education." These conceptions coincide with changes in philosophy and epistemology from Greek civilization to the present. They are brought together with "Five Dimensions of Curriculum Research" to demonstrate the different kinds of curriculum research studies that are possible. The bringing together of the general traditions on the dimensions of curriculum research result in five views of what professional competence of teachers involves: a common sense view, a philosophical view, an applied science view, a practical approach, and a critical view.

On the basis of the views of professional competence, the authors engage in a discussion about the nature of knowledge and how such knowledge is related to a range of research stances. They argue that our current research stances coincide with the classical Greek point of view of the *telos*, or the purpose that the knowledge serves (p. 32).

The concept of *telos* provides a link to the Aristotelian classification of three disciplines (the theoretical, productive, and practical sciences) and the authors point out the nature of theoretical activities on each of the three sciences. In the theoretical sciences, the purpose is technical, means-ends oriented; in the productive sciences, the purpose is practical, artifact production; in the practical sciences the purpose is the creation of practical wisdom and knowledge. The link is established by discussing the distinctions between *poitike* and *praxis* as forms of knowledge

and inquiry, *techne* and *phronesis* as dispositions of the practicing and following the rules of a craft. The Aristotelian distinctions allow current curriculum research to be interpreted as modes of consciousness and how individuals interpret reality.

These three modes are presented as technical, practical, and strategic views of education. The technical view is an empirical-analytical understanding of reality and the educational purpose is concerned with mean-ends. The practical view is a situational-interpretive understanding of reality and the educational purpose is concerned with establishing social meaning. The strategic view is a social understanding of reality and the educational purpose is concerned with educational events as social activities which are historically located, thereby suggesting that the process is intrinsically political. Implicit within this view is the idea of education being ideologically determined and, given that advocates of the view have a social conscience, the concept of praxis is central. A dialetic relationship exists between theory and practice where the honorable and prudent person attempts to create a just and rational society through the reconstruction of practice. In educational terms, such a person "plans thoughtfully, acts deliberately, observes the consequences of action systematically, and reflects on the situation constraints and practical potential of the statigic action being considered" (p. 140). The feature that characterizes this view from other views is the recognition that educational acts are problematic in the deeper sense of ideology.

The next two chapters provide an account of the origins of the "Natural Scientific View" and the "Interpretive View" of educational research. The chapters are an elaboration of the technical and practical views, respectively, that are provided in the previous chapter. The natural scientific view is associated with positivism from the philosophy of science and the view is critiqued on the basis of deficiencies such as objectivity, theory formation, and the idea that science is neutral and value-free. Thomas Kuhn's (1970) argument of scientific revolutions plays a central role in the criticism. His concept of paradigm forms an important element for Carr and Kemmis as the three views of educational research are treated as distinct paradigms.

The interpretive view is associated with the "New Sociology" which argues that knowledge is socially constructed and social reality is constituted and maintained by the interpretive activities of individuals in that society. In chapters 2 and 3, strengths and criticisms of the approaches are included along with sections that recommend further readings and notes that elaborate various points. The authors' approach is fair and balanced to the extent to which the discussions are taken but there is a sense of limitation that pervades the work. It is that the critical-theoretic paradigm is the answer to these limited views.

Chapter four, "Theory and Practice: Redefining the Problem," serves two purposes. One, it allows the authors an opportunity to elaborate their philosophy of educational research and to state their biases for social scientific inquiry which is seen as providing "a more coherent view of the nature of educational research and its relationship to educational practice" (p. 104). The primary task of this coherent view of research "is to emancipate teachers from their dependence on

habit and tradition by providing them with the skills and resources that will enable them to reflect upon and examine critically the inadequacies of different conceptions of educational practice'' (p. 123). To this point, the authors state that a major fault of the previous research paradigms is the inability to offer adequate criteria for distinguishing genuine educational research from purely theoretical, or what they consider to be noneducational, research. They conclude by offering basic features of their approach to social scientific inquiry:

(1) It should not merely test and refine empirical-analytic knowledge, rather it should reveal and eliminate ideological inadequacies in educational practice. It is to do this by generating a reflective, critical attitude, in educational practitioners so that educational practice becomes coherent and rational.

(2) The source of educational theories and knowledge is practical experiences. Thus educational theory needs to be grounded in such experiences.

(3) Once grounded theory is accepted as the theoretical basis, substantive theories will develop which are not distorted by the importation of formal theories from other paradigms.

(4) The criteria against which grounded theories are tested will be the practical experiences of teachers. Such theories will acquire status when they improve ways of understanding practice and they are confirmed by practical experience.

This interpretation of educational research is seen as a process that generates theories from practical situations in the real educational world; theories are tested against criteria internal to the situations as opposed to being tested against an objective reality. The success of the process depends upon practitioners developing a critical reflective stance to their own practices, thus the active participation of practitioners is at the heart of the process. Such research is scientific because it includes ideas of cogency, rigor and critical reflection. It is practical as it takes place in real situations with real problems and thus the implementation of solutions is both reasonable and possible.

The remaining four chapters elaborate the formal requirements that are needed for the development of an educational theory; this allows criteria to be stated, and thus action research becomes a reality. The requirements are: The rejection of positivist notions of rationality, objectivity and truth; the use of interpretive categories of teachers in educational theory; the provision for distinguishing and overcoming ideologically distorted interpretations; the identification and elimination of ideological constraints that frustrate the pursuit of rational goals; and, the recognition that educational theory is practical.

Carr and Kemmis hook the development of these formal requirements to critical theory as it is conceived by the community of scholars who make up the Frankfurt School, in particular Jurgen Habermas. Habermas' conception of the existence of three forms of science and that knowledge of each form is determined by individuals' knowledge-constitutive interests is used as the starting point to

justify action research. Critical theory is a product of critique and this serves as a starting point because action research is more than critique, it involves prudent action to overcome ideological constraints. Given that action research is broader than critique, the ideas of Habermas' critical social science are used to develop a "Critical Educational Science" by paralleling the four conditions — self-reflection, explanation of conclusions, suggest action, remove constraints (p. 136). Ultimately Habermas' ideas are used with the intention of transforming education and involving the stakeholders in research so that education is improved.

Chapter 7 is really the culmination of a carefully developed academic argument in which the authors provide suggestions for a form of research that meets the stringent criteria previously established. They expound the features of a style of research that they see as being consistent with educational action research. They also argue that there are other inferior brands of action research and the reader should be aware of being misled by such research. In retrospect, this is not surprising as various forms of action research have existed over a lengthy period *and* obviously such research will not and cannot meet Carr and Kemmis' criteria; some of them existed prior to the development of critical-theory. It can be argued that Carr and Kemmis' criticisms of previous forms of action research are excessively harsh because the criteria are established after the fact and the criteria are applied retrospectively.

The final chapter is an attempt to bring the argument to a close. The authors claim that an adequate educational science, based on critical social science, results in the emancipation of teachers and consequently the improvement of education. Such an ideal is utopian, as the authors, themselves, admit (p. 223). Because of this the whole exercise appears naive. What is even more telling and perhaps more important is Carr and Kemmis' version of action research has a larger agenda that has remained hidden until the final few pages. That is, education "has a special responsibility to promote critical reflection in society at large" (p. 222). Although the sentiment is honorable, just, and desirable, it is an unrealistic expectation for *one* version of *one* form of educational research to take on such a challenge. Thus Carr and Kemmis' argument is not one that merely promotes improved research and therefore improved practice; it is one of improving education with a commitment to the well-being of its clients such that emancipation is possible for society.

In its entirety Carr and Kemmis' book is a very carefully structured academic work. It is thoroughly researched, carefully written, and well laid out, from the preface and introduction to its comprehensive bibliography. Technically the work is detailed and thorough. The authors carefully map out a conceptualization and rationale for their argument, develop a literature base that supports their claim, as well as demonstrates the ineffectiveness of other research traditions, and they use the literature as a way to develop a parallel education action theory. On the basis of this theory a set of criteria are established for conducting action research.

There are three central weaknesses to the argument and they are seen as the reasons why *Becoming Critical* fails to present a convincing argument for the "teacher as researcher" movement. Respectively the weaknesses are: 1) the paradigm argument is used to legitimatize the work as a whole; 2) a potential reduction of the importance of context in areas researched; and 3) a paradoxical situation of emancipation through *one* research method — that of Carr and Kemmis.

In total the book is an example of one way of understanding educational events, but it is being applied to the paradigmatic structure where the structure is the status quo and as such it establishes the way of thinking. In effect the paradigms have become an ideology that serves a legitimatizing exercise for arguments. Hammersley (1984) calls this the paradigm argument. The careful application of paradigms by Carr and Kemmis objectifies the author's interpretations of action research and then the interpretations are used as a way of justifying courses of action, that is, action research. A contradiction becomes evident. Research is taken for granted and only the technical issues of doing research are stressed. Values are ignored, or minimally emphasized. Carr and Kemmis have gone to one extreme, dismissed other forms of knowing and this is manifested through the paradigm argument. This situation is contradictory as Habermas' structure has at its center the idea of interests and motives influencing knowledge and thus influencing forms of science. To overcome the contradiction, Carr and Kemmis need to re-emphasize values in action and thus a possibility exists to argue for action research in certain circumstances. In this way the contradiction may be overcome *but* it means arguing for other forms of research given other values and interests. Obviously this is unsatisfactory as it goes against the stated intention of the book. This leaves us in a quandry; either we are aware of the influence of values and interests in knowledge formation or we ignore the influence and accept action research as *the* way of knowing.

Carr and Kemmis' commitment to an ideologically driven style of research ignores, or certainly reduces, the importance of the context of the concepts being researched. The context within which research occurs is a central issue for all research (Barrow, 1988). Reducing the importance of the context in favor of the conceptualization of what one is researching results in a kind of confusion. The confusion can be at two extremes. One, where a minute, educationally unimportant question is researched which results in a highly sophisticated technical product that bears little or no relation to the educational events. Two, a potentially important educational question is researched but rather than paying attention to the context the ideological commitment is automatically assumed to be the driving force behind the question. As a result potential conclusions are preordained and they have an ideological component. Admittedly, educational questions may be viewed as having ideological components but to overstate the case and automatically assume ideology is most important and consequently have the assumption determine action research as the appropriate research stance is to forget the importance of context. It is possible to hypothesize researchable questions about students' learning styles and to see such questions from an ideological point of view *but* it is not essential to do so.

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The context in which a question arises, from a teacher's or researcher's point of view, need not be ideological. It could be a question with a major focus on learning as opposed to ideological constraints on learning. This is not to denigrate the importance of the critical-theoretic tradition nor the notion of ideology but it does argue for a balance among conceptualizations of the context within which one is researching.

The combination of the paradigm argument, placing undue stress on ideology being the central, most important feature for all educational questions, plus implying that their account of educational science and therefore that their form of action research is the adequate form, strikes me as paradoxical. The emancipatory argument is at the heart of Carr and Kemmis' work but the continuous stand of the argument implies that their version of action research represents the only adequate educational science. I find this paradoxical because Carr and Kemmis are trying to emancipate teachers but they have the vision of the only "true" way to freedom. What appears to be lacking in *Becoming Critical* is critical reflection about the application of critical reflection; therein lies the paradox. What is there about Carr and Kemmis' account of research that makes it *the* adequate form? What makes it *the* route to emancipation?

If the point of the book is to make teachers aware of a research stance that has emancipatory potential then the job of this review is to move from discussing weaknesses to discussing where action research fits into education as a whole.

Rather than dismissing all forms of educational science other than those based in critical-theory as being flawed and therefore inadequate, it would appear a more productive view would be to conceive of action research as an approach that may be used in a variety of research views (including empirical-analytic, hermeneutic, *and* critic-reflective).

What is being considered as action research by Carr and Kemmis appears to be rooted in the kind of science that Kurt Lewin was committed to for the improvement of social practice. Argyris, Putnam and Smith (1985) state, "Although Lewin never wrote a systematic statement of his views on action research, several themes stand out" (p. 8). The themes may be summarized as research on immediate practical problems with the purpose of improving practice, with an underlying orientation of participation on the part of people in the situation along with free choice to engage in new kinds of action. Thus, Lewinian action research was practically oriented and it challenged the status quo from a perspective of democratic ideals *but* it was not solely ideologically driven. Carr and Kemmis acknowledge the roots of action research, as they conceive them, but they state current action researchers are not in agreement with "Lewin's formulation of the significance of action research" (pp. 163-164). Carr and Kemmis disagree with the positivistic nature of the Lewinian roots because it is "incompatible with the aims and methods of any *adequate* social or education science" (p. 164, emphasis added).

Thus *Becoming Critical* offers a version of action research that is cut off from its roots and by implication the new version is adequate while the alternate, or earlier form is inadequate. There is a difference between what Carr and Kemmis consider educational actions research and classical Lewinian action research. Corey (1953) observed that "the process by which practitioners attempt to study their problems scientifically in order to guide, correct and evaluate their decisions and actions is what a number of people have called action research" (p. 6). Such a definition is somewhere between a classical Lewinian definition and Carr and Kemmis' definition. Rather than viewing action research as belonging to a particular paradigm it might be useful to think of it lying on a continuum ranging from pure laboratory experimentation, at one end, to ideologically driven research at the other. It is possible to utilize action research in a variety of situations and researchers must be able to make justifiable decisions as to where on the continuum their research will be placed. The overall guiding principle must be good research seeks to eliminate, control or account for factors in phenomena under study so that appropriate questions are examined in appropriate ways. It is naive to suggest one form of research, based on a particular set of assumptions, which is rooted in a particular world-view can possibly answer all important educational questions.

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