The Concepts and Methods of Phenomenographic Research

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This article reviews the nature of "phenomenographic" research and its alleged conceptual underpinnings in the phenomenological tradition. In common with other attempts to apply philosophical phenomenology to the social sciences, it relies on participants' discursive accounts of their experiences and cannot validly postulate causal mental entities such as conceptions of learning. The analytic procedures of phenomenography are very similar to those of grounded theory, and like the latter they fall foul of the "dilemma of qualitative method" in failing to reconcile the search for authentic understanding with the need for scientific rigor. It is argued that these conceptual and methodological difficulties could be resolved by a constructionist revision of phenomenographic research.

During the last 25 years research on student learning in higher education has benefited immensely from a distinctive qualitative approach known as "phenomenography." This is associated with Ference Marton and his colleagues at the University of Göteborg in Sweden, although it has been taken up by many other researchers in Australia, the Netherlands, and the United Kingdom. Marton (1986, 1988b) described phenomenography as an empirically based approach that aims to identify the qualitatively different ways in which different people experience, conceptualize, perceive, and understand various kinds of phenomena. Within this framework, learning assumes a central importance, because it represents a qualitative change from one conception concerning some particular aspect of reality to another (Marton, 1988a).

In this paper, I argue that a proper evaluation of the phenomenographic approach has in the past been bedevilled by a lack of specificity and explicitness concerning both the methods for the collection and analysis of data and the conceptual underpinning of those methods (cf. Francis, 1993). My aim is to provide such an evaluation by taking the publications of Marton himself as

primary sources. These show that the rationale for phenomenographic research was constructed post hoc from apparently cognate developments in the social sciences. However, this raises fundamental issues regarding the conceptual, epistemological, and methodological basis of phenomenographic research. I shall consider each of these areas in turn and conclude that these issues can only be resolved by a radical revision and rereading of that research.

In the same period of 25 years, there has been a considerable increase in the application of qualitative methods to research problems in education, psychology, and the social sciences more generally (Denzin & Lincoln, 1994), and at certain points in my account it will be useful to compare phenomenographic research with other approaches. Qualitative research has still to achieve parity with established, quantitative forms of inquiry in terms of prestige, access to funding and publications, and integration into the curriculum, and this is particularly true in North America. This may be one reason why phenomenographic research is less well-known there. Accordingly, I begin with an overview of the key research findings, before turning to the conceptual, epistemological, and methodological issues that they raise.

The Results of Phenomenographic Research

Levels of Outcome in Student Learning

The very earliest research to be described as "phenomenographic" was a program of investigations carried out by Marton and his colleagues that was concerned with qualitative differences between individual students in the outcome and process of learning. The focus of this research was on "nonverbatim" learning: that is, students' memory for the content of academic texts. Students were instructed to read texts within rough time limits. Immediately afterwards, they were required to explain to the experimenter what the text was about. They then received a structured interview on the way in which they had approached the task, and, finally, they were asked general questions about their approach to academic studying.

The first study of this nature was reported by Marton (1975; Marton & Säljö, 1976a), who asked 30 first-year students of education or educational psychology to read a newspaper article of about 1,400 words on curriculum reform in Swedish universities. Marton and two independent judges found it fairly straightforward to classify the students' attempts to recall the article into four categories of learning outcome, reflecting qualitatively different ways of comprehending the text. In addition, the entailment relations among these categories defined a partial ordering, so that each category logically subsumed those categories below it: in other words, these categories defined a hierarchy in terms of the depth of the learning outcome. This general pattern was replicated in a number of other studies (Fransson, 1977; Marton & Säljö, 1976a, 1976b; Marton & Wenestam, 1978; Säljö, 1975; Svensson, 1976, 1977).

For any particular text, the logical relations amongst the different categories of outcome were taken to define what Marton and Dahlgren (1976) described as an "outcome space." Particular outcomes could be regarded as being more appropriate or desirable than others, insofar as they bore a closer relationship to the author's original conception (Marton, 1976). More generally, one could say

that some ways of experiencing a phenomenon were better than others to the extent that they were more "efficient" in terms of some given criterion: for instance, it could be said to be more efficient in terms of using and developing arithmetic skills to appreciate that numerical addition was a commutative relation, so that $2 + 7 = 7 + 2$ (Marton, 1994). Other examples would be the contrasts between commonsense and scientific conceptions of specific phenomena (Marton, 1978, 1981; Marton & Booth, 1997, chap. 4).

Levels of Processing in Student Learning

The broad aim of Marton's (1975) investigation was not merely to describe qualitative differences amongst individual students in terms of different levels of learning outcome, but also to derive a commensurable description of the levels of processing employed in student learning. Indeed, Marton and an independent judge once again found it fairly straightforward to classify the 30 participants in his investigation as having exhibited two different levels of processing (although a third judge was needed to resolve 10 cases of disagreement). The two levels of processing were differentiated by Marton and Säljö (1976a) according to the aspects of the text on which the students' attention had apparently been focused:

> In the case of *surface-level processing* the student directs his attention towards learning the text itself (*the sign*), i.e., he has a "reproductive" conception of learning which means that he is more or less forced to keep to a rote-learning strategy. In the case of *deep-level processing*, on the other hand, the student is directed towards the intentional content of the learning material (*what is signified*), i.e., he is directed towards comprehending what the author wants to say about, for instance, a certain scientific problem or principle. (pp. 7-8)

As expected, there was a clear correlation between students' levels of processing and the levels of outcome apparent in their recall of the text. All of those who exhibited a deep level of processing achieved the two highest levels of outcome, but most of those who exhibited a surface level of processing achieved the two lowest levels of outcome. Moreover, as the quotation above implies, the distinction between different levels of processing tended to be correlated with different conceptions of the role of the learner and with different conceptions of learning itself. Those students who adopted deep-level processing generally adopted an active role and saw learning as something they did, whereas those who adopted surface-level processing generally adopted a passive role and saw learning as something that just happened to them (see also Marton, 1976, 1979).

Marton had also asked his participants about their general academic studies. On the basis of their responses, he concluded that approaches to studying in higher education could be categorized in essentially the same terms, and this was confirmed in subsequent work. In particular, students appeared to adopt a "deep" approach insofar as they acknowledged the more abstract forms of learning demanded in higher education (Svensson, 1977) and were motivated by the relevance of the syllabus to their own personal needs and interests (Fransson, 1977); but they tended to adopt a "surface" approach insofar as they encountered an overloaded curriculum and methods of assessment that emphasized the

superficial properties of the material to be learned (Dahlgren & Marton, 1978). The distinction between deep and surface approaches was subsequently replicated by investigators in other countries (Hounsell, 1984; Laurillard, 1979, 1984; Morgan, Taylor, & Gibbs, 1982; Ramsden, 1984; van Rossum & Schenk, 1984; Watkins, 1983).

Conceptions of Learning

Conceptions of learning were studied directly by Säljö (1979a, 1979b), who carried out interviews with 90 people between the ages of 15 and 73 years recruited from a number of educational institutions. An initial analysis suggested that for many respondents learning was taken for granted and was tantamount to little more than rote memorization. However, for others and especially for those who had experience of higher education, learning had become "thematized": in other words, "something which can be explicitly talked about and discussed and can be the object of conscious planning and analysis" (Säljö, 1979a, p. 446). These people had become "aware of the influence of the context of learning on what you should learn and how you should set about it" (p. 448; see also Säljö, 1982, chap. 6).

On the basis of a more thorough analysis of the respondents' replies to the specific question, "Well, what do you actually mean by learning?", Säljö (1979b) broadened this distinction into five qualitatively different conceptions of learning:

1. Learning as the increase of knowledge.
2. Learning as memorizing.
3. Learning as the acquisition of facts, procedures, etc., which can be retained and/or utilized in practice.
4. Learning as the abstraction of meaning.
5. Learning as an interpretative process aimed at the understanding of reality. (p. 19)

Although these conceptions of learning had been instantiated in different informants, Säljö claimed that they represented a developmental hierarchy (see also Marton & Säljö, 1984; Säljö, 1979a; 1982, chaps. 12-13). This was justified by reference to comments made by some participants about the process of transition from school to university, and by reference to broad parallels between this scheme and a model of intellectual development that had been described by Perry (1970) based on a longitudinal study of students in the United States.

Other researchers confirmed that Säljö's (1979b) scheme could be used to classify the conceptions of learning exhibited by students in both the Netherlands and the United Kingdom (Gibbs, Morgan, & Taylor, 1984; Martin & Ramsden, 1987; van Rossum, Deijkers, & Hamer, 1985; van Rossum & Schenk, 1984; Vermunt & van Rijswijk, 1988). Marton, Dall'Alba, & Beaty (1993) described changes in the conceptions of learning displayed by 29 students over up to 6 years of studying by distance learning. Their accounts were broadly akin to those described by Säljö, except that there was a further conception of learning, which Marton et al. characterized as "changing as a person." The latter conception of learning was found only during the later years of study and only in students who had previously displayed Säljö's fifth conception of learning, and it appears to reflect the kind of personal commitment that was implicated in the later stages of Perry's model of intellectual development.

Summary

One can summarize the key findings of phenomenological research as follows:
1. When different students engage with an academic text, their attempts to recall the gist of the text define a hierarchy of different learning outcomes.
2. Students exhibit qualitatively different approaches to studying that depend upon their perceptions of the learning task and their conceptions of themselves as learners.
3. Different students exhibit a number of different conceptions of learning that appear to represent a developmental hierarchy partially mediated by participation in higher education.

The Concepts of Phenomenographic Research

Marton (1986) frankly admitted that the methods in his original work were "developed out of some common sense considerations about learning and teaching" (p. 40) and lacked a clear conceptual basis. Marton (1979) had characterized his approach as an application of the introspective method, in which people were asked to report their mental processes while carrying out an experimental task. This had been popular in psychology around the turn of the century and, according to Marton, had regained its position in educational and psychological research during the 1960s and 1970s. Marton (1970) had earlier obtained introspective reports in experimental research on human memory, although then he had acknowledged that his participants might simply have drawn inferences from their own behavior (p. 76).

In fact, contrary to Marton's (1979) suggestion, a lively debate had taken place during the 1970s on the whole question of the admissibility and the value of introspective evidence within cognitive and social psychology (see, e.g., Evans, 1980; Nisbett & Wilson, 1977; Pylyshyn, 1973). It was therefore unsurprising that the research by Marton and his colleagues was disparaged from within the dominant paradigm of psychological research as being an essentially descriptive enterprise (see Marton, 1986). Moreover, although his research bore affinities to the other qualitative approaches to social-science research that were being developed during the 1970s, it lacked the explicit epistemological foundation that these other approaches possessed. As Marton (1988b) subsequently explained, this led him and his colleagues to search for arguments for the legitimacy of their approach by examining the positions from which these other approaches had developed.

Marton (1978) took the first steps in constructing a more convincing and principled rationale for his approach. He suggested that conventional research on student learning adopted a "first-order" or "from-the-outside" perspective that sought to describe the learner and the learner's world in broadly the same terms. He characterized his own approach as adopting instead a "second-order" or "from-the-inside" perspective that sought to describe the world as the learner experienced it. He linked this idea to Kant's distinction between a thing in itself (or noumenon) and a thing as it appeared (or phenomenon): whereas traditional research had adopted an observational or "noumenal" approach, he and his colleagues had adopted an experiential or "phenomenal" approach (see also

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Marton & Svensson, 1979). Subsequently, Marton (1981) labelled this approach "phenomenography."

Phenomenography and Ethnography

"Ethnography" denotes the general study of cultures; more precisely, it refers both to the method of fieldwork through participant observation and to the written accounts of those cultures produced by anthropologists (Van Maanen, 1996). Classic examples concerning higher education were the studies by Becker, Geer, Hughes, and Strauss (1961) and Becker, Geer, and Hughes (1968). The superficial verbal similarity between "phenomenography" and "ethnography" may have led some writers to infer that phenomenography was just a loose form of anthropology (for instance, Marland, 1989; Säljö, 1987, 1988). This may, in turn, have led other researchers to include as legitimate forms of data collection "chats at the foot of the stairs" with students as well as informal discussions "over a beer" with their teachers (Eizenberg, 1986, p. 21). Francis (1993) commented that there was a real danger that "phenomenography" would be abused by its use to describe work based on very naïve interviewing. Marton (1988b) agreed that there were a number of basic assumptions that phenomenography shared with ethnography. However, he emphasized that there were important differences between these two approaches in their foci of interest and their theories of description and has never himself tried to assimilate phenomenography to ethnography.

In fact, genuine phenomenographic investigations of student learning would not count as forms of ethnographic research for a number of reasons. First, ethnography implies the analysis of social processes by involvement in day-to-day experience (e.g., Hammersley & Atkinson, 1995; Toren, 1996). Phenomenographic researchers may often be members of academic staff at the same educational institutions as their participants, but this is generally quite fortuitous and just reflects the tendency of educational researchers to recruit samples of participants that happen to be the most convenient rather than any genuine commitment to experience the same educational processes. There is, in principle, no reason why phenomenographic research should not involve participant observation, and indeed Marton (1988b) referred to a study of just this sort. However, the vast majority of phenomenographic researchers have not participated in the particular educational processes that constitute the focus of their inquiries. In this respect, they are more like 19th-Century anthropologists, who typically relied upon the secondhand accounts of distant correspondents (Stocking, 1987).

Traditionally, ethnographers have aimed to provide a descriptive or realistic account of the cultures that they have studied (see Van Maanen, 1988, chap. 3). More recently, however, anthropologists have emphasized the importance of locating those cultures within a broader context and of adopting a distanced and even questioning attitude towards the results of their fieldwork (e.g., Marcus & Fischer, 1986); as Toren (1996) expressed this point, ethnography aims to render strange what is taken to be perfectly ordinary. For instance, in their research on medical education, Becker et al. (1961) found that their own students' accounts were not useful "because there was a marked difference between what we observed students doing while they were in school and the way they

talked about school in retrospect" (p. 445).

Phenomenographic researchers are different from contemporary ethnographers in this regard, too, because they do not adopt a sceptical attitude towards the statements that are made by their interviewees. On the contrary, the accounts produced by students concerning their experiences of learning in higher education are usually accepted at face value (see Bligh, 1993). In fact, Fleming (1986) criticized phenomenographic investigations because they reduced students' accounts of their own approaches to learning to the level of the stories that were told to tourists by their couriers. Giddens (1979, pp. 5, 24-25, 57-58, 73; 1984; pp. xxii-xxx, 288-291) argued that much of the knowledge that people use to regulate and make sense of social actions remains at the level of "practical consciousness," in that it is tacit or implicit knowledge that cannot be readily articulated in discourse; it follows that understanding social phenomena does not simply amount to being able to provide coherent discursive accounts.

Phenomenography and Phenomenology

It is clear that Marton (1981) was instead seeking to exploit the association between phenomenography and the long-established tradition of phenomenology. As a philosophical movement based upon particular analytic methods, phenomenology was founded by a number of German philosophers led by Husserl (1913/1931). For Husserl, phenomenological reduction consisted in suspending one's beliefs concerning the existence of perceptual objects in order to focus on their intrinsic properties or essences. He described this process as "abstention" (*epoché*) or "bracketing" (*Einklammerung*), analogous with the use of brackets in algebraic formulas (pp. 108-109, 155). Nevertheless, Husserl argued that reflection on the ideas of consciousness and of intentional action demonstrated that there must exist a transcendental self in which perceptual experience inhered (pp. 150-154).

Several commentators implied that phenomenography was essentially the same as phenomenology (for example, Gibbs, Morgan, & Taylor, 1982; McKeachie, 1984; Morgan, 1984; Prosser, 1993; Taylor, 1983). Marton (1981) agreed that there were similarities between the two approaches, and he later spelled this out by saying that both phenomenographic and phenomenological research were relational, experiential, content-oriented, and qualitative (see Marton, 1986, 1988b). However, Marton (1981) also identified several important differences between the two approaches; these too were discussed in more detail in his later publications (see also Marton, 1994; Marton & Booth, 1997, chap. 6). It will help to clarify what Marton meant by "phenomenography" if one considers exactly why he thought it was different from phenomenology and why he thought that the former should be preferred to the latter.

In passing, however, it needs to be emphasized that many fundamental aspects of Husserl's philosophy were rejected by later writers such as Heidegger, Merleau-Ponty, and Sartre, each of whom used the expression "phenomenology" to refer to a particular approach to philosophical issues. Marton referred solely to Husserl and not to these latter writers in trying to characterize the main differences between phenomenology and phenomenography. His account is seriously inaccurate if the term "phenomenology" is taken to subsume these later philosophical accounts, and the same will therefore be true of my own account

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insofar as it describes phenomenology solely from the perspective of phenomenographic research. It has, however, been argued that Heidegger, Merleau-Ponty, and Sartre differed so much from Husserl in terms of their basic aims and methods, that they should not even be regarded as belonging to the same school of philosophy (Schmitt, 1967b).

According to Marton (1981), phenomenology was a philosophical method that was "directed towards the prereflective level of consciousness": In other words, its aim "is to describe either what the world would look like without having learned to see it or how the taken-for-granted world of our everyday existence is 'lived'" (p. 181; see also Marton & Booth, 1997, pp. 116-117). Elsewhere, he commented that phenomenological investigation was concerned with "immediate experience," rather than with conceptual thought (Marton, 1986, 1988a, 1988b). Marton (1981) emphasized that, in contrast, phenomenographers dealt with "both the conceptual and the experiential, as well with what is thought of as that which is lived" (p. 181). Or, as he later expressed this point (Marton, 1986; see also Marton, 1988b):

> Phenomenographers do not make use of this distinction, at least not as a starting point in research. We try instead to describe relations between the individual and various aspects of the world around them, regardless of whether those relationships are manifested in the forms of immediate experience, conceptual thought, or physical behavior. (pp. 41-42)

A pragmatic reason for this, according to Marton (1988b), was that people who take part in interview-based research "will hardly be very anxious to maintain the distinction when they are telling us about their experiences" (p. 194). A more fundamental point made by Marton (1988a) was that both experience and conceptualization were of an intentional nature, and hence they should be accommodated within the same categories of description.

Prosser (1993) endeavored to illustrate this point using the example of the Necker cube (see Figure 1). This figure is readily seen as a three-dimensional object, but it can be seen in one of two qualitatively different views, depending upon which of the two inner vertices is seen as being apparently nearer to the observer. According to Prosser, phenomenographic researchers would be interested in the different interpretations that people impose on the figure by identifying particular figure-ground relationships (cf. Marton & Booth, 1997, pp. 78-80, 100). The example is in fact more pertinent than Prosser himself realized. What he did not point out is that most people experience a spontaneous reversal of perspective between the two views if they fixate the figure over a period of time. This is interesting, because it shows the operation of pre-attentive interpretative processes in perception. These processes can be influenced by training, instructions, or prompting, but they are not available to introspection and cannot be suppressed by conscious strategies (Rock, 1975, pp. 263-270, 286-289), of which phenomenological reduction would presumably be an example. More fundamentally, the Necker cube demonstrates the essentially interpreted or intentional nature of perception.

However, the latter point has always been appreciated by phenomenologists. As Schmitt (1967b) noted, they did not assume that they somehow had access to "raw" or uninterpreted sensory data, merely that it was possible to suspend their
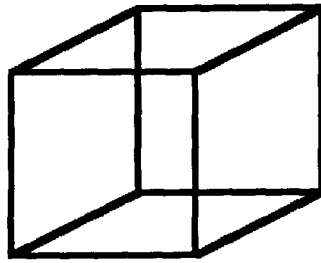
FIGURE 1. *The Necker cube*

own conceptions concerning the existence of phenomena as veridical objects. Husserl (1913/1931) characterized this state as one of adopting a reflective or "phenomenological" attitude in the place of an unreflective or "natural" attitude based on everyday beliefs (pp. 154-155). This would involve identifying the intentional experience and the intentional object of that experience (which Husserl referred to as the *noesis* and the *noema*, respectively: pp. 257-260). The latter was not simply a bundle of sensory data, but a coherent percept; for example, in observing a blossoming apple tree, "even the phenomenologically reduced perceptual experience is a perception *of* 'this apple-tree in bloom, in this garden, and so forth'" (p. 260). Elsewhere, Husserl (1921/1970, pp. 680-685, 712-714, 761-764) discussed the interpreted, intentional nature of perception at some length.

Indeed, Prosser (1993) had taken his account from a monograph by Ihde (1977) entitled "Experimental Phenomenology," although interestingly Prosser misdescribed the volume's title as *Experimental Phenomenography* (p. 22), whereas Marton (1988a) had correctly cited this monograph as an example of phenomenological research. As an exercise in experimental phenomenology, Ihde noted that the Necker cube could be seen as any one of an indefinite series of *noemata*, including a six-legged insect in a hexagonal opening or a plane hexagonal figure, but that many of these relied on additional cues or on particular perspectives of the Necker cube (pp. 91-108). He claimed that people generally saw the Necker cube as a cube because of their prior sensory experience of the world (see also Ihde, 1986, pp. 71-73). These interpretations constituted the subject matter of phenomenology, according to Ihde (p. 92). In terms of their subject matter, therefore, there is in fact no clear distinction between phenomenology and phenomenography.

Another point is that phenomenology was supposed to be a descriptive but nonempirical science that aimed to explicate the general, necessary, and invariant features of objects—their "essences" (see Schmitt, 1967b). Against this idea, Marton (1978) insisted that there were no such things as "essences." Rather, the results obtained by Marton and his colleagues were taken to mean that conceptions of particular phenomena or principles depended on the observer's perspective. Indeed, he initially argued that there was "an infinite set of possible perspectives" (p. 12). However, Marton later retracted this in favor of the position that phenomena were usually experienced or conceptualized in a finite and

relatively limited number of qualitatively different ways, and the goal of phenomenography was to characterize variations in experience and the architecture of this variation (Marton, 1981, 1986, 1988b, 1994; Marton & Booth, 1997, p. 117). Of course, for Ihde (1977), the idea that objects such as the Necker cube might have different interpretations posed no problem for phenomenology.

Phenomenology and the Social Sciences

Nevertheless, there is a much more fundamental issue. Marton (1978, 1981) argued that phenomenologists could not accommodate his distinction between a "first-order" perspective that sought to describe the world and a "second-order" perspective that sought to describe people's experience of the world, because they could envisage access to the world only through personal experience. Elsewhere, Marton (1986, 1988b, 1994) expressed this point by arguing that phenomenology was an enterprise in the first person singular. Indeed, Husserl (1913/1931) had only even been able to refer to the first person singular by means of a Kantian argument for the existence of a transcendental self. Later, however, Husserl realized that, on this account, phenomenology seemed to entail solipsism (in other words, the idea that the world and other people exist only as objects of one's own consciousness).

Husserl (1931/1960, pp. 89-151) attempted to block this objection to phenomenology by positing an "intersubjective community" of transcendental selves, but his arguments were not convincing: As Pivcevic (1970, p. 82) noted, Husserl's transcendental epoché cut the self off from the reality of other people (see also Spiegelberg, 1969, pp. 157-159). Nevertheless, Husserl's later proposals had the effect of changing phenomenology into a different kind of enterprise that involved the reflective description and analysis of the conditions for communal experience. Elsewhere, Husserl argued that phenomenology should "bracket" the ideas and assumptions of modern science and concern itself instead with the mundane world of lived experience (see Schmitt, 1967a; Spiegelberg, 1969, pp. 159-162). Proposals such as these made phenomenology attractive to the rapidly developing disciplines of the social sciences.

The most important figure in this context is Schutz (1932/1967), who is widely credited with applying philosophical phenomenology to the study of human society. Just as, for Husserl, the objects of experience were constituted in human consciousness, so, for Schutz, the mundane world of lived experience was constituted in the activities of social communities. Nevertheless, Schutz explicitly stated that in studying the social world it was necessary to "abandon the strictly phenomenological method" since the latter would lead to the problem of transcendental solipsism (p. 97). Instead, he simply accepted intersubjectivity and the social world as "the fundamental ontological category of human existence in the world," and he claimed that all other categories of existence were "founded on the primal experience of the we-relationship" (Schutz, 1957/1966, p. 82). He went on to construct his own account of intersubjective understanding based upon the detached observation of social events (see Schutz, 1932/1967, p. 97; 1970, pp. 275-277; Schutz & Luckmann, 1973, p. 5; Wagner, 1983, pp. 31, 60).

This notion of social research as an interpretative enterprise that focused upon the meanings of everyday interactions was taken up by several other researchers, including Berger and Luckmann (1966), Denzin (1989); and Garfinkel (1967). In these and other accounts, "bracketing" referred to the suspension of the researcher's cultural values and expectations rather than to the suspension of any existential presuppositions on the part of the participants (see also Berger & Keller, 1981, p. 52). Indeed, Bourdieu (1992) maintained that researchers should seek an "epistemological rupture" both with the assumptions of common sense and with established theoretical positions. Nevertheless, Denzin (1989) emphasized the positive aspect of bracketing as that of holding the social process of interest up for serious examination and confronting it on its own terms to isolate its key, essential features (pp. 31, 48, 55-56, 140). As Taylor (1983, pp. 84-90) pointed out, this approach to social-science research clearly falls within Marton's (1978) "second-order" perspective.

Marton (1978, 1981) was familiar with this approach through the book by Schutz and Luckmann (1973), but the phenomenological researchers whose studies he acknowledged as the direct precursors to phenomenography were Giorgi and his student Colaizzi (see also Alexandersson, 1981; Marton, 1986, 1988b). Giorgi (1965, 1966, 1970) had produced a manifesto for a phenomenological psychology that he hoped would make up for inadequacies in the dominant paradigm within experimental psychology. He explained that this approach would involve the researcher serving as a participant observer to obtain verbal accounts that revealed the meaning of the relevant phenomena from the participants' point of view. In Giorgi's (1967) early research, these accounts were obtained by debriefing participants following conventional laboratory-based experiments. However, later investigations incorporated semi-structured interviews concerning everyday experience, including the everyday experience of learning (Giorgi, 1975a, 1995).

Colaizzi (1973) himself specifically set out to study learning from a phenomenological point of view. He asked his participants to perform ten learning activities: Seven of these involved standard laboratory tasks, but the other three were examples of everyday learning, including studying an academic text in order to be able to give a coherent and intelligible synopsis of its contents. For each of these tasks, the participants were instructed to produce accounts of their experiences of learning by filling out a standard questionnaire that contained both closed and open-ended questions. As Colaizzi commented (pp. 29-30), these accounts were descriptive and empirical rather than reflective in nature, and they stood in need of interpretation by the researcher.

Entwistle (1984) claimed that phenomenographic approaches to research were "rooted in phenomenology" (p. 13), but this was clearly incorrect. Rather, phenomenology appeared to offer a philosophical rationale for the program of research that Marton and his colleagues had been carrying out on student learning, but at the cost of ontological essentialism and epistemological solipsism. To provide a grounding for empirical research in other people's experience rather than one's own, Marton realized that it was necessary to "transcend the original form of phenomenology" (Marton, 1986, p. 41). Those authors who had endeavoured to apply philosophical phenomenology to social-science research appeared to have achieved this and avoided the trap of solipsism. Although

some of these authors retained a commitment to essentialism and sought to describe social events in terms of "their essential, recurring features" (Denzin, 1989, p. 128), Giorgi (1975a) had used a phenomenological approach to characterize individual traits in the form of learning styles. Consequently, this approach appeared to offer the means to turn the first-person enterprise of phenomenology into a third-person enterprise in which researchers could investigate the experiences of their participants.

The Epistemology of Phenomenographic Research

It is pertinent, however, to enquire into the epistemological basis of this approach to social-science research. Schutz (1932/1967) had inferred that an understanding of the social meaning of particular situations could only be obtained by analysis of the participants' own discursive accounts; he expressed this point by stating that "all knowledge of the subjective experiences of others must be obtained signitively" (p. 217; see also Schutz & Luckmann, 1973, pp. 247-251, 281-286). Similarly, Giorgi (1966, 1975a, 1975b) had argued that only careful, unprejudiced descriptions in the form of interview transcripts (or "protocols") would provide access to the meanings of experiences and social situations for the participants.

Marton's initial definition of "phenomenography" was "research which aims at description, analysis, and understanding of experiences; that is, research which is directed towards experiential description" (see Marton, 1978, p. 6; 1981, p. 180). This definition is essentially ambiguous. On the one hand, it is clear that phenomenography is concerned with people's experiences and with their conceptions of the world, and that the main aim of phenomenography is to characterize variations in people's experiences. The fundamental results of a phenomenographic investigation are a set of "second-order" categories of description by means of which the researcher attempts to describe how the relevant phenomenon is experienced (Marton, 1986, 1988b; Marton & Booth, 1997, pp. 121-122).

On the other hand, it is equally clear that the raw data for such an enterprise take the form of people's descriptions or accounts of their own experience. As Marton (1986) stated: "Phenomenographers categorize their subjects' descriptions" (p. 33). More recently, Marton and Booth (1997) stated that phenomenographic researchers described the relevant phenomenon "from the reports or inferences of their subjects" (p. 125). Typically, these reports are obtained in semi-structured, individual, oral interviews using open-ended questions (Marton, 1986, 1994). Marton (1986) recognized that there were other sources of information by means of which researchers could understand how people conceived of different aspects of their world, and he recently listed these alternative sources as "group interviews, observations, drawings, written responses, and historical documents" (Marton, 1994, p. 4427; see also Marton & Booth, 1997, p. 132). However, these are simply different forms of discourse that have the same evidential status as oral accounts.

Realism and Constructivism

Now, accounts of this nature are open to two kinds of interpretation. The natural interpretation is that they provide a veridical description of some objec-

tive reality. This might be called a "realist" interpretation. When the accounts in question provide explanations of behavior couched in terms of mental processes or mental entities, this kind of interpretation has been called "cognitivism" (Edwards & Potter, 1992). Trying to explain individual differences in student behavior by reference to differences in students' conceptions of the phenomenon in question is a specific example. Indeed, it is quite clear that, for Marton, phenomenography is a realist enterprise in this sense: He has consistently maintained that the aim of the phenomenographer is to discover and classify people's conceptions of reality in just the same way that a botanist might discover and classify new species of plants on some remote island (Marton, 1986, 1988b, 1994).

Although it is possible to argue that conceptions of learning or of other phenomena are somehow imposed upon the learner through the academic context and the curriculum, nowadays most cognitive theorists assume that conceptions are constructed by learners precisely in order to make sense of the context and the curriculum, and this kind of theoretical position is known as "constructivism." Marton and Booth (1997, pp. 6-12) identified two different variants of constructivism. In one, which they called "individual constructivism," knowledge is constructed through the individual learner's interaction with the physical environment. Marton and Booth claimed that this was exemplified in the work of Piaget, but such an ascription is highly questionable (see Lourenço & Machado, 1996). In the second variant, which they called "social constructivism," knowledge is constructed through a social process involving collaboration and negotiation among groups of learners; Marton and Booth claimed that this was exemplified in the work on "situated cognition" by Lave and Rogoff.

In his early writings concerning approaches to learning in higher education, Marton (1976) appeared to suggest that these were cultural phenomena that were socially constructed (cf. Dahlgren, 1984; Säljö, 1984, 1987, 1988, 1994). Elsewhere, Marton (1978, 1981) also acknowledged a broad affinity between his investigations and "constructivist" approaches in educational research; he cited a literature review by Magoon (1977) that characterized these approaches as accounts in which cognitive activities reflected the deployment of culturally mediated, personally meaningful knowledge. The literature on situated cognition should, in principle, be of considerable interest to phenomenographic researchers, since it suggests that thinking (both in everyday life and in educational situations) is influenced by the immediate situations and cultural contexts in which it occurs (e.g., Lave, 1988; Lave & Wenger, 1991; Light & Butterworth, 1993; Resnick, Levine, & Teasley, 1991; Rogoff, 1990; Rogoff & Lave, 1984; Suchman, 1987). Indeed, some writers have criticized phenomenography specifically for its neglect of social, cultural, and contextual factors (Säljö, 1994; Uljens, 1993).

Nevertheless, Marton and Booth (1997, pp. 6-12) explicitly rejected both individual constructivism and social constructivism. Instead, they put forward the position that conceptions of reality were aspects of an individual's awareness that existed in some latent form that could be brought to a "reflected" or "thematized" state through the researcher's interventions during the course of an interview (pp. 130-131). This, too, is a straightforwardly realist interpretation

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of interviewees' accounts, according to which "conceptions of reality" are objective entities that play a causal role in determining people's actions and behavior and that therefore explain individual differences in behavior. In fact, Marton and Booth went so far as to say that "in phenomenography individuals are seen as the bearers of different ways of experiencing a phenomenon" (p. 114).

However, this leads to a metaphysical issue that is diametrically the opposite of that raised by phenomenology (cf. Wittgenstein, 1968, p. 282). Just as phenomenologists have no basis for characterizing other people's experiences of the world because they themselves only have access to their own experiences, phenomenographers have no basis for characterizing other people's conceptions of the world (at least, as causal determinants of how they go about learning) because they themselves only have access to other people's verbal accounts. Indeed, even Schutz (1957/1966, p. 71) argued that observations of outward behavior were insufficient to ascribe mental events to other people. This has been put forward as an issue in social studies of science, where several writers have objected to the received view of the scientist as a "cognizing agent" (see Woolgar, 1996). It has also been raised as a general problem in theories of cognitive psychology by Edwards and Potter (1992).

Possibly in order to rebut this kind of criticism, Marton and Booth (1996) put forward an account of personal experience that was different from what they characterized as the "commonsense view": in other words, the view that personal experiences are experiences of objects and events that have an objective and independent existence. Building upon Marton's (1988a) earlier account of conceptions as both intentional and relational, they proposed a "nondualist ontology," according to which "there is only one world, a real existing world that is experienced and understood in different ways by human beings; it is both objective and subjective at the same time. An experience is now a relationship between object and subject that encompasses them both" (p. 537). On this account, an object or event is not identical with the way in which it is experienced; rather, "we hold that the object has to be seen as the complex of all the different ways it *might be experienced*" (p. 538, italics in original; see also Ekeblad & Bond, 1994; Marton & Booth, 1997, p. 113).

However, to constitute a genuinely "nondualist" ontology, an account of this nature has to assume that objects and events exist only insofar as they are experienced; otherwise, there are still two kinds of entities in the world, those objects and events that are currently being experienced (by somebody) and those that might potentially be experienced but are not currently being experienced. This raises the issue that confronted the philosopher Berkeley (1734), that of explaining the persistence through time of physical objects, independent of whether or not they were being experienced by anyone. Berkeley himself tried to resolve this issue by positing the existence of an omniscient God, whose main function was to perceive objects that were not currently being perceived by a human being. Although Marton and Booth (1997) acknowledged that natural objects could not be said to depend upon human beings for their physical existence, they could only comment that "we cannot describe a world that is independent of our descriptions or of us as describers" (p. 113).

Moreover, it is not clear on this account how it could be possible for two

different people to share the same conception of some aspect of reality, since they would presumably stand in different relations to the relevant object or event. In focusing upon interindividual differences in conceptions, phenomenography appears unable to handle interindividual identity. In any case, this account does not resolve the epistemological problem of how it is possible to know about other people's conceptions of the world merely on the basis of their own verbal accounts, because phenomenography takes for granted (indeed, insists upon) the commonsense dualist epistemology that marks a distinction between our "first-order" experience of objects and events and our "second-order" knowledge of other people's experience of those objects and events: We learn about physical objects by observing them, but we learn about other people's experience of those objects by asking them. In other words, even if Marton and Booth (1997) were successful in their aim of "transcending" dualism in the realm of ontology (p. 12), it would resurface in the realm of epistemology.

Marton and Booth (1997) were adamant that they rejected "cognitivism" or the view that individual differences in learning should be explained in terms of hypothetical mental structures or representations (pp. 8-13, 163, 178-179). Nevertheless, they argued that individuals should be construed as bearers of different ways of experiencing a phenomenon, as represented in their different intentional relations with the world (pp. 113-114). In this regard, they retained the cognitivist notion that differences between individuals in their conceptions of learning were the upshot of cognitive processes. As Woolgar (1996) pointed out, this is to buy into a central precept of the "natives" before even setting foot in the field (see also Fleming, 1995). Similar arguments were used by behaviorist philosophers and psychologists to reject the use of mental explanations of people's behavior and to replace them by supposedly more objective theories, but this denies the validity of verbal accounts even as discursive practices.

Realism and Constructionism

There is in fact an alternative way of interpreting the accounts provided by participants in research interviews,. which is to regard them as examples of people's discursive practices, without making any assumptions as to their evidential status. It is this kind of approach that is adopted in discourse analysis (Potter & Wetherell, 1987). Indeed, it is possible to go further and argue that the entities that figure in such accounts are merely artifacts that are constituted in social interactions and have no independent existence; this position is known as "(social) constructionism" (Gergen, 1994; Potter, 1996). Bourdieu (1992) argued in a similar vein that "all data are constructions" (p. 226) and that social research always involved the construction of the objects under investigation. More specifically, following Edwards and Potter (1992, p. 100), one can argue that it is much more appropriate to try to understand mentalistic notions such as "conceptions of learning" in terms of the part that they play within social interactions, including the interactions that take place in the particular context of the research interview.

In the case of research on student learning, Säljö (1988) stressed the need for phenomenographic researchers to accept that the categories of description that they put forward were their own constructions, and that other researchers might

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in principle arrive at different categorizations on the basis of precisely the same evidence. It follows that they cannot be taken to refer to an objective reality that would somehow be accessible through unbiased observation, but must be regarded instead simply as forms of speech that happen to figure in people's interpretative practices. In short, the dependence of phenomenography upon discursive accounts demands a constructionist interpretation of "conceptions of learning." Indeed, the activities of phenomenographers themselves should not be exempted from phenomenographic analysis. Rather, as Säljö expressed this point, the possibility of interpreting reality differently also applies to the activity of describing conceptions of reality (see also Säljö, 1994, 1997). In other words, the constructed nature of phenomenographic explanations is revealed by the reflexive nature of phenomenography itself (cf. Steier, 1991).

This position had, in fact, been anticipated much earlier by Schutz (1954) himself, who had commented: "The constructs of the social sciences are, so to speak, constructs of the second degree, namely, constructs of the constructs made by the actors on the social scene" (p. 267). Bourdieu (1987/1990, pp. 125-126), too, acknowledged the second-order nature of theoretical constructs in the social sciences. Only by recognizing the constructed nature of social phenomena, he argued, could one achieve a genuine epistemological rupture with the assumptions of common sense (Bourdieu, 1992). He, however, took a more radical reflexive turn and put forward a "structural constructivism" that related social theories to the position and disposition of the theorists as cultural producers in society (see also Wacquant, 1992). It would indeed be interesting to see a phenomenographic analysis of academic researchers of the kind that Bourdieu (1984/1988) developed in his book, *Homo Academicus.*

The Methods of Phenomenographic Research

Marton and Booth (1997, chap. 6) argued that phenomenography was not a research method in itself, but an approach to research that had a strong educational interest. However, they were quite specific and even prescriptive about the methods of data collection and data analysis that would be characteristic of phenomenographic research (pp. 129-135). Indeed, Marton (1986, 1988b, 1994; Entwistle & Marton, 1994; Marton & Säljö, 1984) had spelled out in some detail the analytic procedures that he and his colleagues had originally employed (see also Entwistle, 1997a). The origins of this methodology were not clearly acknowledged, but it appeared to combine elements of grounded theory (to be discussed in more detail in a moment) with elements of both protocol analysis (see Ericsson & Simon, 1993) and discourse analysis (see Potter & Wetherell, 1987).

In this section, I argue that the methods of data collection in the earliest studies carried out by Marton and his colleagues were fairly unremarkable. Nevertheless, Marton and Booth proposed more recently that the research interview could have a quasi-therapeutic role, and I argue that this idea is questionable on both ethical and political grounds. The methods of data analysis employed in phenomenographic research seem to be indistinguishable from those of grounded theory, and like grounded theory they raise a specific conceptual issue that has been termed the "dilemma of qualitative research." It has been suggested that this dilemma can be resolved by a constructionist reworking of

grounded theory, and, following the arguments in the previous section, I propose a similar reworking of phenomenographic research.

The Research Interview

With regard to the conduct of research interviews, Marton's original research appears to have been relatively unexceptional when it is compared with current practice in the social sciences (see, e.g., Mishler, 1986; Patton, 1990; Spradley, 1979). In fact, as Francis (1993) pointed out, it is now common in educational research to use qualitative data to generate local descriptions from conversationally constructed narrative. She herself was critical, rather, of inadequate reporting of the interview procedure and the interviewees' responses. However, Marton (1994) made the more specific proposal that the phenomenographic interview should facilitate the thematization of aspects of the person's experience that had not been previously thematized, and he concluded that this process could serve a pedagogical function.

Giddens (1984, p. 7) argued that knowledge at the level of "practical consciousness" (in other words, tacit or implicit knowledge of social phenomena) could be rendered explicit (and could thus be articulated in conversational discourse) as the result of appropriate socialization or learning experiences. Marton and Booth (1997, pp. 129-131) similarly stressed the need to bring an interviewee to a state of "meta-awareness" in order to enable them to articulate their conceptions. They argued that the research interview could become a quasi-therapeutic situation in which the researcher would need to adopt specific strategies to break down or bypass the interviewee's defense structures of denial and resistance.

The research interview can certainly be a powerful psychodynamic encounter for both parties, and it shares a number of characteristics with psychotherapeutic sessions (see King, 1996). Nevertheless, Marton and Booth (1997) ignored the political and ethical problems that arise if one treats the research interview as a psychotherapeutic experience. There has been considerable discussion of the distribution of power in qualitative research (e.g., Gubrium & Silverman, 1989), and this is likely to be especially problematic when the researcher has a position of status within the participants' own academic institution (as in many published examples of phenomenographic research). Mystifying the ordinary procedure of the research interview by seeking to bring informants to some special state of "meta-awareness," as Marton and Booth proposed, only compounds this problem and the potential for abuse.

Ethical issues, too, have been widely discussed (Kimmel, 1988; Punch, 1994), and these impose considerable responsibility upon the interviewer. King (1996) gave the example of knowing how to respond to a participant's disclosure— apparently for the first time to anyone—of the experience of sexual abuse as a child, and she emphasized the importance of interviewers receiving proper training and supervision. Moreover, Marton and Booth's account begs the more fundamental question of how the researcher can know when the interviewee has been brought to a state of true "meta-awareness." Is there even the possibility that participants can be brought to a state of false "meta-awareness" analogous to the alleged "false-memory syndrome" (cf. Conway, 1997)?

In general, as Bourdieu (1992) pointed out, social researchers may endeavor

to impose concepts or categories that are products of the social world to which they themselves belong. For instance, Marton and Booth (1997, p. 107) noted that the identification of different levels of learning outcomes in Marton's original studies had relied upon value judgments about the adequacy of different ways of understanding a text, but these judgments might just reflect the researchers' own conceptions of the domain in question (Webb, 1996, pp. 87-88; 1997). The distinction between deep and surface processing itself embodies a judgment about the relative desirability of different approaches to studying (Webb, 1996, p. 89; 1997), a judgment that is usually justified by reference to the avowed goals of higher education (Entwistle, 1997b). To guard against such problems, what is needed is a reflexive approach that takes into account the social relationship between researchers and their informants and the constructed nature of the research interview (an approach that Bourdieu himself called "participant objectivation").

The Analysis of Interview Data

With regard to the analysis of research interviews, Marton's original research seems to have been based upon verbatim transcripts, although the extracts of transcripts that were included in published reports were not at the level of detail and accuracy that would be expected in conversation analysis, for example (see Nofsinger, 1991). These transcripts were then subjected to an iterative and interactive process to identify fundamental categories of description in the data, each illustrated by relevant quotations. Marton and Säljö (1984) stressed that the categories should emerge from comparisons conducted within the data, whereas in traditional content analysis they would be defined in advance and imposed on the data. For Marton (1986, 1988b), this was based upon the phenomenological concept of "bracketing" or holding in check any preconceived notions that might contaminate one's immediate experience. In fact, leaving aside the point that this statement confuses the technical notion of the phenomenological epoché with adopting an objectivistic orientation in social research, in phenomenographic inquiry investigators focus on the experiences of other people whilst bracketing preconceptions based upon their own experiences of the domain in question (see Marton, 1994; Marton & Booth, 1997, p. 120).

However, precisely the same approach to the analysis of qualitative data is to be found in "grounded theory." This is a methodology devised by Glaser and Strauss (1967), according to which theoretical concepts and hypotheses are "discovered" in and refined against the participants' accounts. The "grounding" of theory directly in qualitative data was supposed to replace an uncritical acceptance of existing theory (and, in particular, of the forms of "grand theory" then prevalent in North American sociology). As indicated by the idea of "discovery," grounded theory was in its original form based on a realist ontology, but nowadays it is open to alternative interpretations, as I will point out in a moment. Nevertheless, these alternative interpretations share the central idea that theoretical understanding emerges from an iterative process based on a constant sampling, comparison, and analysis of transcribed excerpts from interviews or other discursive material (see Strauss & Corbin, 1990, 1994). Researchers are encouraged to transcend their preconceptions by seeking out counterexamples and validating their interpretations through peer debriefing

(Pidgeon, 1996; Stiles, 1993).

The broad similarity between Marton's approach and the development of grounded theory was remarked upon by Entwistle and Ramsden (1983, p. 14) and more recently by Francis (1993). In the absence of published guidance on the analytic procedures that were involved in "doing phenomenography," some researchers seem to have simply adopted the techniques of grounded theory in order to analyze transcripts of interviews with students about their approaches, conceptions, and orientations to studying in higher education (e.g., Laurillard, 1978, pp. 65-67). This was most obvious in the case of the Study Methods Group at the Open University in the United Kingdom (Morgan, 1991; Morgan, Taylor, & Gibbs, 1982; see also Taylor, 1983). Säljö (1982, p. 17; 1984) referred to Glaser and Strauss's (1967) book in explaining his own application of phenomenography and went on explicitly to identify the process of deriving categories of description within phenomenographic research with the analytic techniques of grounded theory (Säljö, 1988). Nevertheless, it is only belatedly that Marton and Booth (1997, p. 134) cited Glaser and Strauss's approach to the analysis of interviews, and then merely in the context of a technical point regarding the representativeness of the participants who had been sampled.

The Dilemma of Qualitative Research

Whereas Marton sought a basis for phenomenography in phenomenology, grounded theory stemmed from symbolic interactionism (see Blumer, 1969; Denzin, 1970), which regarded social life as regulated by symbols whose meanings were constituted in social interactions. Nevertheless, although Glaser and Strauss (1967) were concerned to argue for the appropriateness of qualitative research, they did not endeavour to challenge established positivistic notions concerning the basic nature of scientific inquiry. As Pidgeon (1996) commented, in talking of the way in which theory was "discovered from" data, Glaser and Strauss (1967) implied that a set of social or psychological relationships existed objectively in the world, were reflected in qualitative data, and hence were there to be captured by any researcher who should happen to pass by (or, at least, any researcher who was prepared to engage fully with local settings and understandings). Marton (1978) noted that Glaser and Strauss's arguments were in fact very similar to his own view of phenomenographic inquiry.

Nevertheless, Hammersley (1989) argued that symbolic interactionism and other naturalistic approaches encountered a basic dilemma in seeking to reconcile the "subjective" and the "objective" in forms of qualitative research: "On the one hand, social phenomena cannot be understood without taking account of subjective as well as objective factors; yet, at present we have no way of capturing subjective factors that meet the requirements of science" (p. 4). Hammersley argued that grounded theory, as practised by Glaser and Strauss (1967), had not resolved this dilemma (pp. 198-204)..Denzin (1988) made a very similar criticism of grounded theory: By making qualitative research "scientifically" respectable, researchers may be imposing schemes of interpretation on the social world that simply do not fit that world as it is constructed and lived by interacting individuals" (p. 432). In principle, as Hammersley noted, this "dilemma of qualitative research" could be resolved by redefining science or else by redefining the social world and how it can be investigated (pp. 207-220).

Similarly, it can be argued that there is a tension inherent within phenomenography between the positivistic desire for scientific rigor and generalizability and the hermeneutical search for authentic understanding (Ekeblad & Bond, 1994; Webb, 1996, p. 89; 1997). Marton and Booth's (1996, 1997) specification of a "nondualist ontology" represented an attempt to resolve this tension, but (as mentioned above) this retains the dualist epistemology on which phenomenography is based. Some writers have put forward constructionist revisions of grounded theory (e.g., Charmaz, 1990; Layder, 1993, chap. 4). On this kind of account, the process by which conceptions of reality have been constructed by participants in research is mirrored in the process by which theories are generated (rather than discovered) in the course of the interactions between researchers and their data (Henwood & Pidgeon, 1992). This broad approach to grounded theory appears to resolve the "dilemma of qualitative research" by recognizing the constructed nature of participants' conceptions of particular phenomena and the interpretative nature of social research.

This approach to grounded theory is also entirely consistent with the constructionist interpretation of phenomenography that I suggested earlier. On this view, conceptions of reality are not psychological entities somehow residing in the minds of individuals. Rather, they represent discursive practices that are used as resources in particular communicative encounters. For the phenomenographic researcher, they are apparent most obviously in the communicative encounter of the research interview, although this in itself is a distinctive situation which demands that the participants exhibit a peculiar kind of discursive practice. Indeed, these various discursive practices originate and are constituted in the contributions that people make to situated discourse in daily life. This suggests that phenomenographic researchers might pay more attention in the future to the accounts given by their participants in real-life situations in which the relevant concepts are put to use for concrete communicative purposes. For elaboration of all these points, see Säljö (1988, 1994, 1997).

Conclusions

The approach to qualitative research that was developed by Marton and his colleagues during the 1970s revolutionized the way in which both researchers and teachers think about the process and the outcome of learning in higher education. Unfortunately, this research was felt to lack a clear conceptual basis. "Phenomenography" represented the attempt to provide an ad hoc and post hoc underpinning for the methodology that Marton and his colleagues had employed with such apparent success.

Marton (1981) sought to endow phenomenography with a vicarious status by associating it (both implicitly and explicitly) with the philosophical school of phenomenology. The latter had certainly inspired a distinctive approach to qualitative research in the social sciences, and it seemed to provide a rationale of sorts for the work that Marton and his colleagues had been carrying out. In particular, the way in which the basic ideas of phenomenology had been amended by previous thinkers in the social sciences appeared to avoid both the problem of solipsism (so that it made sense to postulate conceptions of reality in other people) and also the problem of essentialism (so that it made sense to postulate a variety of conceptions of reality in different people). In short, phenomenography seemed to

take a "second-order perspective of statements-about-perceived-reality," but in a way that acknowledged sources of variation across individuals (p. 188).

Nevertheless, all such attempts to turn the "first-person" enterprise of phenomenology into a "third-person" enterprise suitable for the social sciences fall foul of precisely the same fundamental conceptual problem. Their proponents insist that their intention is "to describe the world as people *experience* it" (Marton, 1978, p. 2, italics added). However, they have to depend on other people's discursive accounts of their experience. In this case, they are merely describing the world as people describe it. To infer that there are mental entities that are causally responsible for differences in their accounts is to fail to bracket one's own prejudices, to adopt an unreflective attitude rather than a reflective attitude, and to buy into the cognitivist precepts of the "natives" (cf. Webb, 1997).

This argument can be made at the methodological level rather than at a conceptual level. Marton himself has never explicitly acknowledged the obvious similarities between the analytic procedures of phenomenographic research and those of grounded theory, yet other researchers appear quite content to assimilate the former to the latter. In this event, however, phenomenographic research falls foul of what Hammersley (1989) described as the "dilemma of qualitative method." Pidgeon (1996) maintained that a constructionist revision of grounded theory would resolve this dilemma, and a constructionist revision of phenomenography would, correspondingly, provide a proper grounding for phenomenographic research.

The earliest examples of "phenomenographic" research actually predated any attempt to articulate its theoretical underpinning, and this suggests that the practice of phenomenography can be disengaged from that theoretical underpinning. Indeed, writings by some of Marton's own colleagues appear to betray at the very least an affinity with social constructionism (e.g., Dahlgren, 1984; Säljö, 1984, 1987). More specifically, the account developed by Säljö (1988, 1994, 1997) showed that a constructionist revision of phenomenographic research is possible. The arguments that I have put forward in this paper indicate that a constructionist reworking of phenomenographic research is both heuristically desirable and philosophically necessary.

If the practice of phenomenography can be disengaged from its underpinning, does this mean that the latter is intrinsically arbitrary? It could be argued that researchers who adopt a constructionist approach are more likely to address their own research practices in a reflexive and critical manner, whereas the ontological and epistemological assumptions of researchers who adopt a realist approach are more likely to remain implicit in their conduct of interviews. Francis (1993) expressed concern about the use of leading prompts during phenomenographic interviews, which would, of course, lead to self-fulfilling prophecies through the mechanism of behavior confirmation (e.g., Rosenthal, 1963, 1976; Snyder & Swann, 1978). Moreover, I argued earlier that Marton and Booth's (1997) commitment to realism led them to advocate potentially unethical conduct to bring informants to an appropriate state of "meta-awareness."

The same considerations are relevant to educational practice. It is currently fashionable to argue that professionals of all kinds should be "reflective practitioners" (Schon, 1983). In the particular domain of higher education, it has been

suggested that faculty should adopt a research-based approach to the improvement of their teaching, by using both qualitative and quantitative methods to investigate the process of learning on the part of their own students (Katz & Henry, 1988). Unfortunately, in the latter context, little attention is paid to issues of confidentiality, consent, and control (see Richardson, 1990). Phenomenographic research has served to illuminate the processes of learning in higher education in a way that makes good sense both to students and to faculty and entails specific proposals for developing programs aimed at improving student learning (see Ramsden, 1988). The notion of an evidence-based or research-based approach to faculty development is similarly laudable. However, if faculty are to be encouraged to use phenomenographic techniques in the development of their own teaching, then they need to apply those techniques to their own assumptions about teaching and learning in a reflective and reflexive manner if they are to avoid analogous self-fulfilling prophecies in their students' behavior and performance (cf. Rosenthal & Jacobson, 1968).

References

Alexandersson, C. (1981). *Amedeo Giorgi's empirical phenomenology* (Report No. 1981:03). Mölndal, Sweden: University of Göteborg, Department of Education.

Beaty, E., Dall'Alba, G., & Marton, F. (1997). The personal experience of learning in higher education: Changing views and enduring perspectives. In P. Sutherland (Ed.), *Adult learning: A reader* (pp. 150-165). London: Kogan Page.

Becker, H. S., Geer, B., & Hughes, E. C. (1968). *Making the grade: The academic side of college life.* New York: Wiley.

Becker, H. S., Geer, B., Hughes, E. C., & Strauss, A. L. (1961). *Boys in white: Student culture in medical school.* Chicago: University of Chicago Press.

Berger, P. L., & Keller, H. (1981). *Sociology reinterpreted: An essay on method and vocation.* Garden City, NY: Doubleday.

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge.* Garden City, NY: Doubleday.

Berkeley, G. (1734). *A treatise concerning the principles of human knowledge* (2nd ed.). London: Jacob Tonson.

Bligh, D. (1993). Review article [Review of the book *Learning to teach in higher education*]. *Studies in Higher Education, 18,* 105-111.

Blumer, H. (1969). *Symbolic interactionism: Perspective and method.* Englewood Cliffs, NJ: Prentice-Hall.

Bourdieu, P. (1988). *Homo academicus* (P. Collier, Trans.). Cambridge, U.K.: Polity Press. (Original work published 1984)

Bourdieu, P. (1990). Social space and symbolic power. In P. Bourdieu, *In other words: Essays towards a reflexive sociology* (M. Adamson, Trans.) (pp. 123-139). Cambridge, U.K.: Polity Press. (Original work published 1987)

Bourdieu, P. (1992). The practice of reflexive sociology (the Paris workshop). In P. Bourdieu & L. J. D. Wacquant, *An invitation to reflexive sociology* (pp. 216-260). Cambridge, U.K.: Polity Press.

Charmaz, K. (1990). "Discovering" chronic illness: Using grounded theory . *Social Science and Medicine, 30,* 1161-1172.

Colaizzi, P. F. (1973). *Reflection and research in psychology: A phenomenological study of learning.* Dubuque, IA: Kendall/Hunt.

Conway, M. A. (Ed.). (1997). *Recovered memories and false memories.* Oxford,

U.K.: Oxford University Press.

Dahlgren, L.-O. (1984). Outcomes of learning. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 19-35). Edinburgh: Scottish Academic Press.

Dahlgren, L. O., & Marton, F. (1978). Students' conceptions of subject matter: An aspect of learning and teaching in higher education. *Studies in Higher Education, 3,* 25-35.

Denzin, N. K. (1970). *The research act in sociology: A theoretical introduction to sociological methods.* Chicago: Aldine.

Denzin, N. K. (1988). [Review of the book Qualitative analysis for social scientists]. *Contemporary Sociology, 17,* 430-432.

Denzin, N. K. (1989). *Interpretive interactionism.* Newbury Park, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research.* Thousand Oaks, CA: Sage.

Edwards, D., & Potter, J. (1992). *Discursive psychology.* London: Sage.

Eizenberg, N. (1986). Applying student learning research to practice. In J. A. Bowden (Ed.), *Student learning: Research into practice. The Marysville symposium* (pp. 21-60). Parkville, Australia: University of Melbourne, Centre for the Study of Higher Education.

Ekeblad, E., & Bond, C. (1994, November). *The nature of a conception: Questions of context.* Paper presented at a conference on "Phenomenography: Philosophy and practice," Brisbane, Australia.

Entwistle, N. (1984). Contrasting perspectives on learning. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 1-18). Edinburgh: Scottish Academic Press.

Entwistle, N. (1997a). Contrasting perspectives on learning. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning: Implications for teaching and studying in higher education* (2nd ed., pp. 3-22). Edinburgh: Scottish Academic Press.

Entwistle, N. (1997b). Reconstituting approaches to learning: A response to Webb. *Higher Education, 33,* 213-218.

Entwistle, N., & Marton, F. (1994). Knowledge objects: Understandings constituted through intensive academic study. *British Journal of Educational Psychology, 64,* 161-178.

Entwistle, N. J., & Ramsden, P. (1983). *Understanding student learning.* London: Croom Helm.

Ericsson, K. A., & Simon, H. A. (1993). *Protocol analysis: Verbal reports as data* (rev. ed.). Cambridge, MA: MIT Press.

Evans, J. St. B. T. (1980). Current issues in the psychology of reasoning. *British Journal of Psychology, 71,* 227-239.

Fleming, W. G. (1986). The interview: A neglected issue in research on student learning. *Higher Education, 15,* 547-563.

Fleming, W. G. (1995). Methodography: The study of student learning as situated action. In G. Gibbs (Ed.), *Improving student learning through assessment and evaluation* (pp. 525-544). Oxford, U.K.: Oxford Centre for Staff Development.

Francis, H. (1993). Advancing phenomenography: Questions of method. *Nordisk Pedagogik, 13,* 68-75. Reprinted 1996 in G. Dall'Alba & B. Hasselgren (Eds.), *Reflections on phenomenography: Toward a methodology?* (pp. 35-47). Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Fransson, A. (1977). On qualitative differences in learning: IV. Effects of intrinsic motivation and extrinsic test anxiety on process and outcome. *British Journal of Educational Psychology, 47,* 244-257.

Garfinkel, H. (1967). *Studies in ethnomethodology.* Englewood Cliffs, NJ: Prentice-

Hall.

Gergen, K. J. (1994). *Realities and relationships: Soundings in social construction*. Cambridge, MA: Harvard University Press.

Gibbs, G., Morgan, A., & Taylor, E. (1982). A review of the research of Ference Marton and the Goteborg group: A phenomenological research perspective on learning. *Higher Education, 11,* 123-145.

Gibbs, G., Morgan, A., & Taylor, E. (1984). The world of the learner. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 165-188). Edinburgh: Scottish Academic Press.

Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis.* London: Macmillan.

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration.* Cambridge, U.K.: Polity Press.

Giorgi, A. (1965). Phenomenology and experimental psychology I. *Review of Existential Psychology and Psychiatry, 5,* 228-238. Reprinted 1971 in A. Giorgi, W. F. Fischer, & R. Von Eckartsberg (Eds.), *Duquesne studies in phenomenological psychology* (Vol. 1, pp. 6-16). Pittsburgh, PA: Duquesne University Press.

Giorgi, A. (1966). Phenomenology and experimental psychology II. *Review of Existential Psychology and Psychiatry, 6,* 37-50. Reprinted 1971 in A. Giorgi, W. F. Fischer, & R. Von Eckartsberg (Eds.), *Duquesne studies in phenomenological psychology* (Vol. 1, pp. 17-29). Pittsburgh, PA: Duquesne University Press.

Giorgi, A. (1967). A phenomenological approach to the problem of meaning and serial learning. *Review of Existential Psychology and Psychiatry, 7,* 106-118. Reprinted 1971 in A. Giorgi, W. F. Fischer, & R. Von Eckartsberg (Eds.), *Duquesne studies in phenomenological psychology* (Vol. 1, pp. 88-100). Pittsburgh, PA: Duquesne University Press.

Giorgi, A. (1970). *Psychology as a human science: A phenomenologically based approach.* New York: Harper & Row.

Giorgi, A. (1975a). An application of phenomenological method in psychology. In A. Giorgi, C. T. Fischer, & E. L. Murray (Eds.), *Duquesne studies in phenomenological psychology* (Vol. 2, pp. 82-103). Pittsburgh, PA: Duquesne University Press.

Giorgi, A. (1975b). Convergence and divergence of qualitative and quantitative methods in psychology. In A. Giorgi, C. T. Fischer, & E. L. Murray (Eds.), *Duquesne studies in phenomenological psychology* (Vol. 2, pp. 72-79). Pittsburgh, PA: Duquesne University Press.

Giorgi, A. (1995). Phenomenological psychology. In J. A. Smith, R. Harré, & L. Van Langenhove (Eds.), *Rethinking psychology* (pp. 24-42). London: Sage.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago: Aldine.

Gubrium, J. F., & Silverman, D. (Eds.). (1989). *The politics of field research: Sociology beyond enlightenment.* London: Sage.

Hammersley, M. (1989). *The dilemma of qualitative method: Herbert Blumer and the Chicago tradition.* London: Routledge.

Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in practice* (2nd ed.). London: Routledge.

Henwood, K. L., & Pidgeon, N. F. (1992). Qualitative research and psychological theorizing. *British Journal of Psychology, 83,* 97-111.

Hounsell, D. (1984). Learning and essay-writing. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 103-123). Edinburgh: Scottish Academic Press.

Husserl, E. (1931). *Ideas: General introduction to pure phenomenology* (W. R. B. Gibson, Trans.). London: George Allen & Unwin. (Original work published 1913)

Husserl, E. (1960). *Cartesian meditations: An introduction to phenomenology* (D. Cairns, Trans.). The Hague: Martinus Nijhoff. (Original work published 1931)

Husserl, E. (1970). *Logical investigations* (Vol. II, Pt. II) (J. N. Findlay, Trans.). London: Routledge & Kegan Paul. (Original work published 1921)

Ihde, D. (1977). *Experimental phenomenology: An introduction.* New York: Putnam's.

Ihde, D. (1986). *Consequences of phenomenology.* Albany, NY: State University of New York Press.

Katz, J., & Henry, M. (1988). *Turning professors into teachers: A new approach to faculty development and student learning.* New York: Macmillan.

Kimmel, A. J. (1988). *Ethics and values in applied social research.* Newbury Park, CA: Sage.

King, E. (1996). The use of the self in qualitative research. In J. T. E. Richardson (Ed.), *Handbook of qualitative research methods for psychology and the social sciences* (pp. 175-188). Leicester, U.K.: BPS Books.

Laurillard, D. M. (1978). *A study of the relationship between some of the cognitive and contextual factors in student learning.* Unpublished doctoral dissertation, University of Surrey, U.K. (British Theses Index No. DX5755/9AX)

Laurillard, D. (1979). The processes of student learning. *Higher Education, 8,* 395-409.

Laurillard, D. (1984). Learning from problem-solving. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 124-143). Edinburgh: Scottish Academic Press.

Lave, J. (1988). *Cognition in practice: Mind, mathematics and culture in everyday life.* Cambridge, U.K.: Cambridge University Press.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* New York: Cambridge University Press.

Layder, D. (1993). *New strategies in social research: An introduction and Guide.* Cambridge, U.K.: Polity Press.

Light, P., & Butterworth, G. (Eds.). (1993). *Context and cognition: Ways of learning and knowing.* Hillsdale, NJ: Erlbaum.

Lourenço, O., & Machado, A. (1996). In defense of Piaget's theory: A reply to 10 common criticisms. *Psychological Review, 103,* 143-164.

Magoon, A. J. (1977). Constructivist approaches in educational research. *Review of Educational Research, 47,* 651-693.

Marcus, G. E., & Fischer, M. M. J. (1986). *Anthropology as cultural critique: An experimental movement in the human sciences.* Chicago: University of Chicago Press.

Marland, P. (1989). An approach to research on distance learning. *British Journal of Educational Technology, 20,* 173-182.

Martin, E., & Ramsden, P. (1987). Learning skills, or skill in learning? In J. T. E. Richardson, M. W. Eysenck, & D. Warren Piper (Eds.), *Student learning: Research in education and cognitive psychology* (pp. 155-167). Milton Keynes, U.K.: Society for Research into Higher Education & Open University Press.

Marton, F. (1970). *Structural dynamics of learning* (Göteborg Studies in Educational Sciences 5). Stockholm: Almqvist & Wiksell.

Marton, F. (1975). On non-verbatim learning: I. Level of processing and level of outcome. *Scandinavian Journal of Psychology, 16,* 273-279.

Marton, F. (1976). What does it take to learn? Some implications of an alternative view of learning. In N. Entwistle (Ed.), *Strategies for research and development*

in higher education (pp. 32-42). Amsterdam: Swets & Zeitlinger.

Marton, F. (1978). *Describing conceptions of the world around us* (Report No. 66). Mölndal, Sweden: University of Göteborg, Institute of Education. (ERIC Document Reproduction Service No. ED 169 074)

Marton, F. (1979). Skill as an aspect of knowledge. *Journal of Higher Education, 50,* 602-614.

Marton, F. (1981). Phenomenography: Describing conceptions of the world around us. *Instructional Science, 10,* 177-200.

Marton, F. (1986). Phenomenography: A research approach to investigating different understandings of reality. *Journal of Thought, 21*(3), 28-49. Reprinted 1988 in R. R. Sherman & W. B. Webb (Eds.), *Qualitative research in education: Focus and methods* (pp. 141-161). London: Falmer Press.

Marton, F. (1988a). Describing and improving learning. In R. R. Schmeck (Ed.), *Learning strategies and learning styles* (pp. 53-82). New York: Plenum Press.

Marton, F. (1988b). Phenomenography: Exploring different conceptions of reality. In D. M. Fetterman (Ed.), *Qualitative approaches to evaluation in education: The silent scientific revolution* (pp. 176-205). New York: Praeger.

Marton, F. (1994). Phenomenography. In T. Husén & T. N. Postlethwaite (Eds.), *The international encyclopedia of education* (2nd ed., Vol. 8, pp. 4424-4429). Oxford, U.K.: Pergamon.

Marton, F., & Booth, S. (1996). The learner's experience of learning. In D. R. Olson & N. Torrance (Eds.), *The handbook of education and human development: New models of learning, teaching and schooling* (pp. 534-564). Cambridge, MA: Blackwell.

Marton, F., & Booth, S. (1997). *Learning and awareness.* Mahwah, NJ: Erlbaum.

Marton, F., & Dahlgren, L. O. (1976). On non-verbatim learning: III. The outcome space of some basic concepts in economics. *Scandinavian Journal of Psychology, 17,* 49-55.

Marton, F., Dall'Alba, G., & Beaty, E. (1993). Conceptions of learning. International *Journal of Educational Research, 19,* 277-300.

Marton, F., & Säljö. R. (1976a). On qualitative differences in learning: I. Outcome and process. *British Journal of Educational Psychology, 46,* 4-11.

Marton, F., & Säljö, R. (1976b). On qualitative differences in learning: II. Outcome as a function of the learner's conception of the task. *British Journal of Educational Psychology, 46,* 115-127.

Marton, F., & Säljö, R. (1984). Approaches to learning. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 36-55). Edinburgh: Scottish Academic Press.

Marton, F., & Svensson, L. (1979). Conceptions of research in student learning. *Higher Education, 8,* 471-486.

Marton, F., & Wenestam, C.-G. (1978). Qualitative differences in the understanding and retention of the main point in some texts based on the principle-example structure. In M. M. Gruneberg, P. E. Morris, & R. N. Sykes (Eds.), *Practical aspects of memory* (pp. 633-643). London: Academic Press.

McKeachie, W. J. (1984). Foreword. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. vii-ix). Edinburgh: Scottish Academic Press.

Mishler, E. G. (1986). *Research interviewing: Context and narrative.* Cambridge, MA: Harvard University Press.

Morgan, A. (1984). A report on qualitative methodologies in research in distance education. *Distance Education, 5,* 252-267.

Morgan, A. (1991). *Research into student learning in distance education.* Geelong, Victoria: Deakin University. Underdale, South Australia: University of South

Australia. (ERIC Document Reproduction Service No. ED 342 371)

Morgan, A., Taylor, E., & Gibbs, G. (1982). Variations in students' approaches to studying. *British Journal of Educational Technology, 13,* 107-113.

Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84,* 231-259.

Nofsinger, R. E. (1991). *Everyday conversation.* Newbury Park, CA: Sage.

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Perry, W. G., Jr. (1970). *Forms of intellectual and ethical development in the college years: A scheme.* New York: Holt, Rinehart, & Winston.

Pidgeon, N. (1996). Grounded theory: Theoretical background. In J. T. E. Richardson (Ed.), *Handbook of qualitative research methods for psychology and the social sciences* (pp. 75-85). Leicester, U.K.: BPS Books.

Pivcevic, E. (1970). *Husserl and phenomenology.* London: Hutchinson.

Potter, J. (1996). Discourse analysis and constructionist approaches: Theoretical background. In J. T. E. Richardson (Ed.), *Handbook of qualitative research methods for psychology and the social sciences* (pp. 125-140). Leicester, U.K.: BPS Books.

Potter, J., & Wetherell, M. (1987). *Discourse and social psychology: Beyond attitudes and behaviour.* London: Sage.

Prosser, M. (1993). Phenomenography and the principles and practices of learning. *Higher Education Research and Development, 12,* 21-31.

Punch, M. (1994). Politics and ethics in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 83-97). Thousand Oaks, CA: Sage.

Pylyshyn, Z. W. (1973). What the mind's eye tells the mind's brain: A critique of mental imagery. *Psychological Bulletin, 80,* 1-24.

Ramsden, P. (1984). *The context of learning.* In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 144-164). Edinburgh: Scottish Academic Press.

Ramsden, P. (Ed.). (1988). *Improving learning: New perspectives.* London: Kogan Page.

Resnick, L. B., Levine, J. M., & Teasley, S. D. (Eds.). (1991). *Perspectives on socially shared cognition.* Washington, DC: American Psychological Association.

Richardson, J. T. E. (1990). Review essay [Review of the book *Turning professors into teachers: A new approach to faculty development and student learning*]. *Journal of Higher Education, 61,* 220-225.

Rock, I. (1975). *An introduction to perception.* New York: Macmillan.

Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social contexts.* New York: Oxford University Press.

Rogoff, B., & Lave, J. (Eds.). (1984). *Everyday cognition.* Cambridge, MA: Harvard University Press.

Rosenthal, R. (1963). On the social psychology of the psychological experiment: The experimenter's hypothesis as unintended determinant of experimental results. *American Scientist, 51,* 268-283.

Rosenthal, R. (1976). *Experimenter effects in behavioral research* (enlarged ed.). New York: Irvington.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom.* New York: Holt, Rinehart, & Winston.

Säljö. R. (1975). *Qualitative differences in learning as a function of the learner's conception of the task.* Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Säljö, R. (1979a). Learning about learning. *Higher Education, 8,* 443-451.

Säljö, R. (1979b). *Learning in the learner's perspective: I. Some common-sense assumptions* (Report No. 76). Göteborg, Sweden: University of Göteborg, Institute of Education.

Säljö, R. (1982). *Learning and understanding: A study of differences in constructing meaning from a text* (Göteborg Studies in Educational Sciences, No. 41). Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Säljö, R. (1984). Learning from reading. In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 71-89). Edinburgh: Scottish Academic Press.

Säljö, R. (1987). The educational construction of learning. In J. T. E. Richardson, M. W. Eysenck, & D. Warren Piper (Eds.), *Student learning: Research in education and cognitive psychology* (pp. 101-108). Milton Keynes, U.K.: SRHE & Open University Press.

Säljö, R. (1988). Learning in educational settings: Methods of inquiry. In P. Ramsden (Ed.), *Improving learning: New perspectives* (pp. 32-48). London: Kogan Page.

Säljö, R. (1994). Minding action: Conceiving of the world versus participating in cultural practices. *Nordisk Pedagogik, 14,* 71-80. Reprinted 1996 in G. Dall'Alba & B. Hasselgren (Eds.), *Reflections on phenomenography: Toward a methodology?* (pp. 19-33). Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Säljö, R. (1997). Talk as data and practice: A critical look at phenomenographic inquiry and the appeal to experience. *Higher Education Research and Development, 16,* 173-190.

Schmitt, R. (1967a). Husserl, Edmund. In P. Edwards (Ed.), *The encyclopedia of philosophy* (Vol. 4, pp. 96-99). New York: Macmillan.

Schmitt, R. (1967b). Phenomenology. In P. Edwards (Ed.), *The encyclopedia of philosophy* (Vol. 6, pp. 135-150). New York: Macmillan.

Schon, D. A. (1983). *The reflective practitioner: How professionals think in action.* New York: HarperCollins.

Schutz, A. (1954). Concept and theory formation in the social sciences. *Journal of Philosophy, 51,* 257-273. Reprinted 1962 in A. Schutz, Collected papers: I. *The problem of social reality* (M. Natanson, Ed.) (pp. 48-66). Dordrecht: Kluwer.

Schutz, A. (1966). The problem of transcendental intersubjectivity in Husserl (F. Kersten, Trans.). In A. Schutz, *Collected papers: III. Studies in phenomenological philosophy* (I. Schutz, Ed.) (pp. 51-84). The Hague: Martinus Nijhoff. (Original work published 1957)

Schutz, A. (1967). *The phenomenology of the social world* (G. Walsh, & F. Lehnert, Trans.). Evanston, IL: Northwestern University Press. (Original work published 1932)

Schutz, A. (1970). *On phenomenology and social relations: Selected writings* (H. R. Wagner, Ed.). Chicago: University of Chicago Press.

Schutz, A., & Luckmann, T. (1973). *The structures of the life-world* (R. M. Zaner & H. T. Engelhardt, Jr., Trans.). Evanston, IL: Northwestern University Press.

Snyder, M., & Swann, W. B., Jr. (1978). Behavioral confirmation in social interaction: From social perception to social reality. *Journal of Experimental Social Psychology, 14,* 148-162.

Spiegelberg, H. (1969). *The phenomenological movement: A historical introduction* (2nd ed., Vol. 1). The Hague: Martinus Nijhoff.

Spradley, J. P. (1979). *The ethnographic interview.* New York: Holt, Rinehart, & Winston.

Steier, F. (Ed.). (1991). *Research and reflexivity.* Newbury Park, CA: Sage.

Stiles, W. B. (1993). Quality control in qualitative research. *Clinical Psychology Review, 13,* 593-618.

Stocking, G. W., Jr. (1987). *Victorian anthropology.* New York: Free Press.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273-285). Thousand Oaks, CA: Sage.

Suchman, L. A. (1987). *Plans and situated actions.* New York: Cambridge University Press.

Svensson, L. (1976). *Study skill and learning.* Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Svensson, L. (1977). On qualitative differences in learning: III. Study skill and learning. *British Journal of Educational Psychology, 47,* 233-243.

Taylor, E. M. (1983). *Orientation to study: A longitudinal investigation of two degree courses in one university.* Unpublished doctoral dissertation, University of Surrey, U.K. (British Theses Index No. DX48285/84AX)

Toren, C. (1996). Ethnography: Theoretical background. In J. T. E. Richardson (Ed.), *Handbook of qualitative research methods for psychology and the social sciences* (pp. 102-112). Leicester, U.K.: BPS Books.

Uljens, M. (1993). The essence and existence of phenomenography. *Nordisk Pedagogik, 13,* 134-147. Reprinted 1996 in G. Dall'Alba & B. Hasselgren (Eds.), *Reflections on phenomenography: Toward a methodology?* (pp. 103-128). Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Van Maanen, J. (1988). *Tales of the field: On writing ethnography.* Chicago: University of Chicago Press.

Van Maanen, J. (1996). Ethnography. In A. Kuper & J. Kuper (Eds.), *The social science encyclopedia* (2nd ed., pp. 263-265). London: Routledge.

Van Rossum, E. J., Deijkers, R., & Hamer, R. (1985). Students' learning conceptions and their interpretation of significant educational concepts. Higher Education, 14, 617-641.

Van Rossum, E. J., & Schenk, S. M. (1984). The relationship between learning conception, study strategy and learning outcome. *British Journal of Educational Psychology, 54,* 73-83.

Vermunt, J. D. H. M., & van Rijswijk, F. A. W. M. (1988). Analysis and development of students' skill in selfregulated learning. *Higher Education, 17,* 647-682.

Wacquant, L. J. D. (1992). Toward a social praxeology: The structure and logic of Bourdieu's sociology. In P. Bourdieu & L. J. D. Wacquant, *An invitation to reflexive sociology* (pp. 1-59). Cambridge, U.K.: Polity Press.

Wagner, H. R. (1983). *Alfred Schutz: An intellectual biography.* Chicago: University of Chicago Press.

Watkins, D. (1983). Assessing tertiary study processes. *Human Learning, 2,* 29-37.

Webb, G. (1996). *Understanding staff development.* Buckingham, U.K.: SRHE & Open University Press.

Webb, G. (1997). Deconstructing deep and surface: Towards a critique of phenomenography. *Higher Education, 33,* 195-212.

Wittgenstein, L. (1968). Wittgenstein's notes for lectures on "private experience" and "sense data" (R. Rhees, Trans.). *Philosophical Review, 77,* 271-320.

Woolgar, S. (1996). Psychology, qualitative methods and the ideas of science. In J. T. E. Richardson (Ed.), *Handbook of qualitative research methods for psychology and the social sciences* (pp. 11-24). Leicester, U.K.: BPS Books.

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