Only recently have marketing scientists become concerned with issues in the philosophy of science. This paper points to one neglected area—the implications of a theoretical tradition for the selection of research methods (design, data collection, and data analysis). It is argued that marketing has been relying primarily on only one theoretical tradition. The dominance of this philosophy has led to marketing science growing more rapidly in the area of hypothesis testing than in the development of new, rich explanatory theories. Several suggestions are made to achieve a balance in theory construction and testing, with implications for reducing methods bias by a process of triangulating methodologies.

Paradigm in the conduct of research necessarily brings with it the inherent biases associated with using that paradigm and its allied methodologies. The purposes of this paper are therefore: (1) to describe the major research paradigms used by scholars in marketing and other social sciences; (2) to show the relationships of quantitative and qualitative methods to their respective theoretical paradigms; (3) to survey recent theoretical work in marketing so as to show the reliance on a particular paradigm; and (4) to offer some thoughts on triangulating different methodologies in order to reduce possible methods bias.

The Nature of Scientific Paradigms

Let us begin by stating what we mean by "paradigm." Probably the most commonly accepted definition among students of the philosophy of science is that proposed by Thomas Kuhn in his seminal book, The Structure of Scientific Revolutions (1962). As Kuhn indicates in this work and later elaborates on in Suppe (1977), a paradigm is a set of linked assumptions about the world which is shared by a community of scientists investigating that world. Additionally, this set of assumptions provides a conceptual and philosophical framework (sometimes referred to as a weltanschauung or "world view") for the organized study of the world.

Paradigms, according to Kuhn, are fundamental
for the day-to-day work of any science. More specifically, a paradigm accomplishes the following four objectives:

A paradigm (1) serves as a guide to the professionals in a discipline for it indicates what are the important problems and issues confronting the discipline; (2) helps to develop an explanatory scheme (i.e., models and theories) which can place these issues and problems in a framework which will allow practitioners to try to solve them; (3) establishes the criteria for the appropriate “tools” (i.e., methodologies, instruments, and types and forms of data collection) to use in solving these disciplinary puzzles; and (4) provides an epistemology in which the preceding tasks can be viewed as organizing principles for carrying out the “normal work” of the discipline. Paragons not only allow a discipline to “make sense” of different kinds of phenomena but provide a framework in which these phenomena can be identified as existing in the first place (Filstead 1979, p. 34).

Clearly, understanding the nature of a paradigm enables a scientist to determine both what problems are worthy of exploration and also what methods are available to attack them. Yet the domain of paradigm explication has only recently been an area of inquiry for scientists. Traditionally, the issue of how a paradigm came to be accepted within a scientific community has received most attention in the field of philosophy.

One of the issues that philosophers, and in particular, philosophers of science have been concerned about relates to the process of knowing. In addressing this epistemological aspect of paradigm development, philosophers have attempted to answer the fundamental question: How do we know what we know? The answers to this basic question are not easy ones, and philosophers have been polarized into different schools of thought, based on their perceptions of how the question should be answered. For the sake of brevity, we will simplify the arguments and identify the two major schools of thought as positivism and idealism. Their adherents continue the debate today in the classic argument between quantitative and qualitative paradigms. This latter polemic is the key point of this paper. However, in order to provide the background for this controversy, it is necessary to briefly review the history of modern scientific thought.

Before we do this, however, it should be noted that in distinguishing between schools of thought, there is a tendency to categorize them in such a fashion that they seem independent and mutually exclusive. Nothing could be farther from the truth. As with any epistemic community, some of its members share certain (but not all) beliefs with members of a rival school. In the discussion that follows, therefore, it should be remembered that we are in reality dealing with a philosophical continuum ranging from positivism to idealism. In order to understand the nature of this con-

The Development of Modern Scientific Thought

The growth of marketing as a scientific discipline has followed the development of other fields of social science inquiry. All of these disciplines owe their growth to the notions of scientific method held by the founders and later contributors to each field. In order to understand how marketing developed, it is therefore useful to see how thinking in modern science has developed. This historical backdrop will provide the foundation for the later discussion on theoretical paradigms in marketing.

In the late 15th and early 16th centuries, a very strong faith in rationality existed. In fact, it was mainly because of the existence of this belief in reason that early science could develop (Holzner and Marz 1979). The faith in reason as a means of understanding the world was transposed into a faith in science as a means of understanding that world. As Francis Bacon is claimed to have said: “I see it because I experience it.” This experiential perspective became the cornerstone of scientific thinking. The perception of everyday scientific reality was in terms of human senses—if a phenomenon could not be seen, heard, touched, smelled, or tasted, then it could not exist. This perspective, and its subsequent reformulations, has become known as logical positivism and empiricism (Sjöberg and Nett 1966). The positivists’ answer to the fundamental philosophical question mentioned earlier was: We know because of our abilities to sense phenomena.

However, major social change occurring in the late 18th and early 19th centuries led to several fundamental doubts about this response to the issue of how we know what we know. Many scholars began to question the logic and method of science as it concerned understanding human beings. In the forefront of these scholars was a group of German idealists. They were so named because although they granted the existence of a physical reality, they maintained that the mind was the source and creator of all knowledge. Rather than assuming that the social world pre-existed or was a “given,” idealists believed that this social world was created by the individuals who live within it (Filstead 1979).

These two basic philosophical positions of positivism and idealism can be understood by relating them to our earlier discussion of paradigms. Very simply, the logical positivist view of the world is synonymous with the quantitative paradigm, while the idealist view...
of the world is the qualitative paradigm (Patton 1978, 1980).¹

As Bogdan and Taylor note in their often cited book, *Introduction to Qualitative Research Methods* (1975):

Two major theoretical perspectives have dominated the social science scene. One [positivism] traces its origins to the great social theorists of the nineteenth and early twentieth centuries and especially to Auguste Comte and Emile Durkheim. The positivist seeks the facts or causes of social phenomena with little regard for the subjective states of individuals. . . .

The second theoretical perspective [idealism] stems most prominently from Max Weber. [The theorist in this tradition] is concerned with understanding human behavior from the actor’s own frame of reference (p. 2).

To quote Reichardt and Cook (1979): “. . . the quantitative paradigm is said to have a positivistic, hypothetcico-deductive, particularistic, objective, outcome-oriented, and natural science world view. In contrast, the qualitative paradigm is said to subscribe to a phenomenological, inductive, holistic, subjective, process-oriented, and social anthropological world view” (p. 9, 10).

If the above polysyllabic adjectives seem to obscure the debate, let us just reiterate the last part

¹There have been several reformulations of both the idealist and positivist philosophies since they were first postulated. To describe the further development of these different schools of thought would be beyond the scope and purpose of this paper. Thus, for the remainder of the discussion we will refer to the two paradigms as quantitative and qualitative.

Reichardt and Cook’s distinction. The metaphor prevalent in the quantitative paradigm is that of natural science. As Mitroff (1974) indicates, this view of the scientific method leads its proponents to believe the natural science model is “good science” while any alternative necessarily must suffer by comparison. In criticizing this “storybook view of science” Mitroff develops another metaphor, that of anthropology, which is adopted into the qualitative paradigm. The latter view of the world assumes the importance of understanding situations from the perspective of the actors or participants in that situation. Proponents of this world view are on the opposite end of an objectivity-subjectivity continuum from those of the positivist school of thought.

In order to explain further the distinctions between the two paradigms, we present the major characteristics of each philosophical position in Table 1. As can be clearly seen from this table, there is not only a great deal of distance between these two paradigms, but also a linking of each to a preferred set of scientific methods. In fact, the very use of the terms quantitative and qualitative implies certain preferences in the kinds of research designs and analyses subsumed by each paradigm.

As noted earlier while discussing the nature of scientific paradigms, it is helpful while introducing characteristics of paradigms to refer to them as if they were mutually exclusive. Although Reichardt and Cook’s descriptors of quantitative and qualitative paradigms in Table 1 are thus in this sense polar opposites, it should be kept in mind that individual researchers in

### TABLE 1

<table>
<thead>
<tr>
<th>Qualitative Paradigm</th>
<th>Quantitative Paradigm</th>
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<tr>
<td>1. Qualitative methods preferred.</td>
<td>1. Quantitative methods preferred.</td>
</tr>
<tr>
<td>2. Concerned with understanding human behavior from the <em>actor’s</em> frame of reference.</td>
<td>2. Seeks the facts or causes of social phenomena without advocating subjective interpretation.</td>
</tr>
<tr>
<td>3. Phenomenological approach.</td>
<td>3. Logical-positivistic approach.</td>
</tr>
<tr>
<td>4. Uncontrolled, naturalistic observational measurement.</td>
<td>4. Obtrusive, controlled measurement.</td>
</tr>
<tr>
<td>5. Subjective; “insider’s” perspective; close to the data.</td>
<td>5. Objective; “outsider’s” perspective; distanced from the data.</td>
</tr>
<tr>
<td>8. Validity is critical; “real,” “rich,” and “deep” data.</td>
<td>8. Reliability is critical; “hard” and replicable data.</td>
</tr>
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</table>

*Adapted from Reichardt and Cook (1979).*

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all areas, including marketing, fall somewhere along the continuum between the two extremes. Interpretation of Table 1 should therefore be in a relative sense (e.g., scientists subscribing to the qualitative paradigm more frequently prefer qualitative methods to quantitative methods, and so on). It should also be noted that since our discussion here centers on the link between theory and method, other epistemological issues (such as the links between theory and the social or political aspects of knowledge) are not presented. The attributes of paradigms in Table 1 thus deal primarily with methodological issues.

This link between theoretical paradigm and research method is a very strong one. In recent writing in the evaluation research area where there is a continuing debate concerning preferred methods, Patton (1978) writes:

[Evaluation] research is dominated by the largely unquestioned, natural science paradigm of hypotheticodeductive methodology. This dominant paradigm assumes quantitative measurement, experimental design, and multivariate, parametric statistical analysis to be the epitome of "good" science (p. 203).

By way of contrast, the alternative to the dominant hypotheticodeductive paradigm is derived from the tradition of anthropological field studies. Using the techniques of in-depth, open ended interviewing and personal observation, the alternative paradigm relies on qualitative data, holistic analysis, and detailed description derived from close contact with the targets of study (p. 204).

Clearly it is difficult to separate theory and method, and if a scientist accepts a set of linked assumptions about the world shared by a community of scientists (to reiterate the Kuhnian notion of paradigm), then that scientist to a large extent also accepts the criteria for what the appropriate "tools" are (methodologies, instruments, and types and forms of data collection) for investigating that world. As Rist (1977) states, "the selection of a particular methodology is profoundly theoretical. . . . Research methods represent different means of acting upon the environment" (p. 43).

The above premise of a strong link between research paradigm and research method may seem obvious, but its implications are perhaps not quite so clear. The following section develops these implications by reviewing the current controversy over appropriate paradigms in marketing.

**Theoretical Paradigms in Marketing**

As indicated in the introductory section of this paper, self-conscious reflection on theory construction in marketing is of fairly recent origin. As yet there are only four major books dealing exclusively with metatheoretical issues in marketing and consumer behavior. However, the debate concerning the relevant philosophy of marketing science appears to have begun. Consider, for example, the panel discussion on the implications of current issues in the philosophy of science for marketing at the most recent AMA theory conference. While chairing this panel discussion, Peter (1982) states:

There has been a revolution in the philosophy of science literature in the past twenty years or so. While there are still those who cling to and attempt to shore up weaknesses in the traditional view of science, much of the philosophy of science literature involves approaches which bear little resemblance to logical empiricism. While perhaps not recognized as such, logical empiricism is the dominant philosophical approach employed in marketing and it has come to us in our borrowing of theory construction and research methods from psychology and economics.

With few exceptions, the revolution in philosophical thinking about science has gone unnoticed in marketing (p. 11).

There are two points concerning these statements that we wish to highlight. First, although there was a great deal of debate among panelists regarding what the appropriate philosophical posture was for marketing theory, there was no disagreement regarding Peter and other panelists positioning logical empiricism as the dominant philosophical approach employed in marketing. Second, although panel discussion ranged widely over the merits and demerits of philosophical stances ranging from logical empiricism through relativism and historicism, there was little discussion of the implications of marketing theory for marketing research method.

Let us consider each of these issues in turn. The fact that there was no disagreement regarding logical empiricism being the mainstream paradigm in marketing is significant. This is so because panelists included both advocates of the idealist perspective as well as the positivist viewpoint. The substance of the polemic was enjoined by Brodbeck and Hunt for logical empiricism and Anderson, Lutz, Olson, Peter, Ryan, and Zaltman for the qualitative paradigm (Bush and Hunt 1982). Rather than the latter citing instances where marketing thinking exemplified the anthropological tradition, advocates of the qualitative paradigm bemoaned the preponderance of hypothetico-deductive reasoning in marketing work. As for the proponents of the quantitative paradigm, Brodbeck had previously presented a position paper reifying the core ideas of logical empiricism (1982, p. 1–6), while Hunt had delivered a paper answering in the negative the question, "Are the logical empiricist models of explanation dead?" (1982, p. 7–10)

These books are by Bagozzi (1980), Hunt (1983), Zaltman, LeMasters, and Heffring (1982), and Zaltman, Pinson, and Angelmar (1973).
Turning now to the second issue, as mentioned earlier, the panel discussion cited above did not concern itself with what subscription to a particular theoretical paradigm might mean in terms of preference for certain research methods. As indicated in the previous section on the nature of scientific paradigms, accepting a paradigmatic position generally leads to accepting the tools deemed appropriate for data collection. If marketers in general subscribe to a logical empiricist philosophy of how science is done, then the set of research methods used will be those characterized as objective, obtrusive, controlled, and reductionist (see Table 1). However, these methods have certain distinct limitations that make them applicable for only certain kinds of problems (which are described in detail in the next section of this paper). By excluding alternative methodologies, marketing scientists are perhaps unknowingly also constraining themselves into a set of only partially appropriate techniques for a limited subset of marketing problems. Only a few marketing scholars have recognized this fact. Sheth, for example, comments on the lack of qualitative research in consumer behavior by stating:

> We must lean toward more exploratory and qualitative research tools and tactics such as focused group interviews, projective techniques, clinical methodologies, and nonstructured surveys rather than experimental designs, construct development and measurement or laboratory studies (1981, p. 356).

This is not to say that qualitative research in marketing does not exist. On the contrary, there was tremendous interest in the topic in the fifties and sixties. Books by Dichter (1964), Ferber and Wales (1958), Murstein (1965), and Newman (1957) were widely read and referenced. But, as Bellenger, Bernhardt, and Goldstucker (1976) point out in their monograph on qualitative research techniques, very little has been written on the subject in academic journals over the past 20 years. Calder (1977), for instance, is one of the few marketing scholars to provide a philosophy of science perspective on one such qualitative technique, focus group interviews. Fern (1982), while writing on the latter subject, notes that there has been little empirical testing of focus groups, and no theory of focus group interviewing has evolved. Although a range of notions concerning why focus groups work has appeared in marketing literature, Fern indicates that agreement among authors on this issue is at the most superficial level. Clearly there is a need for work determining the suitability of qualitative research methods for different types of marketing problems. Calder's work (1977) mentioned earlier, for instance, suggests that focus group interviewing can be of three kinds—exploratory, clinical, or phenomenological. He distinguishes between each kind, depending on what type of problem is being addressed. Similar work might look at the applicability of other qualitative research methods.

Ironically, the use of qualitative methods such as focus group interviewing is widespread in industry. A recent study by Greenberg, Goldstucker, and Bellenger (1977), for instance, reported that 47% of the firms they surveyed used focus groups. But there is a noticeable lacuna in the utilization or discussion of such techniques in academic marketing research literature. This is an area where academics have much to gain by a knowledge transfer from commercial research firms. As Sheth (1979) notes, qualitative research has become more sophisticated as more industry researchers use it repeatedly. By relying relatively exclusively on quantitative research methods, marketing scholars not only miss out on the value of such methods, but perhaps also encourage certain methods bias in their work. This might well explain why certain kinds of quantitative marketing models have been criticized for lacking validity (Sheth 1975). Let us examine some of the underlying problems in delimiting research methods.

**Methods Bias in Marketing Research**

Perhaps one of the most interesting statements concerning quantitative and qualitative paradigms comes from the highly respected psychologists Charles Reichardt and Thomas Cook. While writing on the subject of evaluation research, they indicate that "the most telling and fundamental distinction between the paradigms is on the dimension of *verification* versus *discovery*... quantitative methods have been developed most directly for the task of *verifying* or *confirming* theories and... qualitative methods were purposely developed for the task of *discovering* or *generating* theories (1979, p. 17; emphasis added). This distinction between quantitative and qualitative paradigms follows from the modeling of the former along the lines of natural science as we noted earlier. By adopting a "scientific method" approach scientists in the quantitative tradition assume the possibility (and perhaps even the necessity) of formally testing nomothetic propositions. Such theory verification is believed to lead toward the development of enduring theoretical structures so that eventually, as Suppes (1974) suggests, "theoretical palaces" will be erected on the foundations now being laid.

But Reichardt and Cook's statement should cause a great deal of concern to marketing scientists. As indicated in the earlier section of this paper, there is general consensus that marketing science is dominated by a logical empiricist view of social reality. This implies that the majority of marketing scholars...
are far more involved in theory verification than in theory generation. Moreover, the methodologies that have been developed and tested in marketing research are increasingly those suited to confirming propositions or hypotheses rather than to discovering new propositions or hypotheses.

But can there be something amiss in the logic of these last few statements? As we know, there have been several conceptual as well as methodological innovations in marketing thought which have appeared in marketing literature. Witness, for example, the recent contributions in low involvement decision making, attribution and self-perception theory, behavioral learning models, and so on. How then can we reconcile the apparent contradiction between substantive developments in marketing thought and the nature of our philosophical paradigm?

If the paradigm governing quantitative methodologies is derived from the natural sciences, then human events are assumed to be lawful, and humans and their creations are part of the natural world. The dominance of a positivist view in marketing colors our perspective of market interactions with this image. As in the natural sciences, we believe that we can objectively study market interactions while ourselves remaining distant from those interactions (in order to “increase our objectivity”). The elaboration and verification of generalizations about the marketing world become the first tasks of researchers. From that, one aspires to build up empirical generalizations which are then to be refined and restructured into more general “laws.” These laws will then be woven into a coherent nomothetic theory. This is normal natural science procedure.

However, as several writers have mentioned (Arndt 1978, Jacoby 1978, Leone and Schultz 1980), the development of marketing thought has generally not followed this pattern. Rather, there have been disparate substantive contributions which have attempted to explain some small part of overall market reality. Also, attempts to develop an overarching, concatenated framework have been few and far between (Engel and Blackwell 1982, Howard and Sheth 1969).

Perhaps one of the reasons for this lack of accumulation in marketing thought is due to the nature of the paradigm in use. We have assumed that our inability to develop a body of coherent theory is due to incorrect usage of natural science methods (Leone and Schultz 1980). However, the problem may be less in the method and more in the paradigm. To restate Reichardt and Cook, we have been using methods of theory verification almost exclusively even in situations where theory discovery was more appropriate. This is what we mean by a “methods bias” in marketing research. If we ignore the qualitative paradigm, we also by definition exclude the principal systematic means of theory generation. Yet we attempt to make substantive contributions to marketing thought. Also, perhaps unknowingly, we use research methods more geared toward confirmation than discovery, and more toward verification than generation. Sheth, for instance, provides an example of research on consumer information:

Consumer information as an area of scientific research and theory is at its infancy in consumer behavior. . . . It is, therefore, premature to conduct deductive research. . . . we must do [a] considerable amount of empirical inductive research. In short, we must learn how to crawl before we start walking or worse yet, running (1981, p. 356).

In order to know the difference between what we have been doing and what we might have been doing, we need to know a little more about the possible contributions of the qualitative paradigm to marketing research. This is the task of the following section.

**Triangulating Methods in Marketing**

It is not our intention to suggest that the quantitative paradigm has no place in marketing. As noted above, theory verification is an important part of the overall growth of a body of knowledge. However, it is only one part of this growth. The other part depends on effective means for theory generation—the development of series of propositions that are rich with marketing meaning—propositions generated in some manner other than in a hypothetico-deductive linear fashion.

In contrast to quantitative approaches, qualitative methodologies assume that there is some value to analyzing both inner and outer perspectives of human behavior (Rist 1977). As one of the major texts on such methods describes the situation, the qualitative methodologist “views human behavior—what other people say and do—as a product of how people interpret their world. The task . . . is to capture this process of interpretation. To do this requires what Weber called verstehen, empathic understanding or an ability to reproduce in one’s own mind the feelings, motives, and thoughts behind the actions of others” (Bodgan and Taylor 1975, p. 13–14). The qualitative methodologist further believes that a complete and ultimately honest analysis can only be achieved by actively participating in the life of the subject of observation and gaining insights by means of introspection. As we mentioned earlier, this kind of methodology is based on the anthropological tradition where a strong emphasis is placed on the researcher’s ability to “take the role of the other” and to grasp basic underlying assumptions of behavior by seeing the “definition of the situation” through the eyes of the participants (Rist 1977).
The qualitative procedure then is primarily inductive rather than deductive. As two of the major recent contributors to this field have commented, theory development starts with an extrapolation from "grounded events" (Glaser and Strauss 1967). Rather than beginning with hypotheses, models, or theorems, the act of building theory commences with comprehending frequently minute episodes or interactions that are examined for broader patterns and processes.

It is not the purpose of this paper to describe in detail qualitative methodological processes. Several scholars have already developed extremely valuable work in this area (Bogdan and Taylor 1975, Filsheath 1970, Glaser and Strauss 1967, Schwartz and Jacobs 1979, Sjoberg and Nett 1966, Webb et al. 1966). We would, however, like to make a few more comments concerning the relevance of such methodologies for marketing research and marketing theory.

It may be helpful to consider certain metatheoretical aspects of epistemology (i.e., an appraisal of the nature and limits of knowledge). If for a moment we differentiate between the objectives of theory construction and theory testing, we may see the relative appropriateness of qualitative as well as quantitative paradigms along with their associated methods. Our discussion of the distinction between paradigms leads us to believe that qualitative methodologies are more suited for theory construction or generation and quantitative methodologies for theory verification or testing. So while attempting to build a new theory or make an innovative theory construction contribution, a marketing scientist would be well-advised to carefully study and then put into practice qualitative methods. Once the theory has been developed and grounded, the application of quantitative methods would be more appropriate.

This last point is an important one. There has been and there continues to be much controversy in several social sciences on the appropriate theoretical paradigm. Our position is that rather than becoming more and more polarized by taking paradigmatic sides, researchers would be better off realizing that both paradigms have a place in marketing, provided they are not being made to do each other's work. Certain scholars have noted, for instance, that quantitative methodologies emphasize reliability issues (frequently to the exclusion of validity), while qualitative methodologies emphasize validity while downplaying reliability (Deutscher 1970, Merton 1957, Rist 1977). It will only serve to further distance the advocates of each paradigm to exclude the other in their advocacy. Quantitative methodologists would criticize qualitative researchers for low reliability and the lack of work contributing toward a cumulative body of knowledge. In turn, qualitative researchers would castigate quantitative methodologists for not understanding the "shades of meaning" behind their statistical formulations. Such a polemic would be irminical to the growth of marketing knowledge. Ideally, every research endeavor needs both high reliability and high validity. Theory construction is as important as theory verification. To quote a leading psychometrician who finds fault with his own neo-positivistic scientist colleagues:

The time has come to excise the null hypothesis. We cannot afford to pour costly data down the drain whenever effects present in the sample "fail to reach significance." . . . Let the author file descriptive information, at least in an archive, instead of reporting only those selected differences and correlations that are nominally "greater than chance." Descriptions encourage us to think constructively about results from quasi-replications, whereas the dichotomy significant/nonsignificant implies only a hopeless inconsistency. The canon of parsimony, misinterpreted, has led us into the habit of accepting Type II errors at every turn, for the sake of holding Type I errors in check. There are more things in heaven and earth than are dreamt of in our hypotheses, and our observations should be open to them (Cronbach 1975, p. 124).

The task for marketing theorists and marketing researchers then is to understand the advantages and disadvantages of both paradigms. This implies much greater attention to the qualitative paradigm which has been neglected relative to the quantitative one. In terms of methods, the task is to triangulate procedures. This means that researchers should learn not only both quantitative and qualitative research methods, but also the strengths and weaknesses of each set of procedures. Triangulation of procedures would then lead to using an appropriate mix of both quantitative and qualitative methods such that the weaknesses of one set of methodologies is compensated for by the strengths of the other and vice versa.

An excellent example of such methodological triangulation is provided by Sieber (1973) who indicates how qualitative fieldwork (participant observation, informant interviewing, and using available secondary data) and quantitative survey methods can be interplayed within a research endeavor. Since we can assume that readers of this article are probably much better versed in quantitative than qualitative methodology, we will briefly summarize Sieber's arguments for the contributions that fieldwork can make to survey methods.

Many of these issues will be familiar to marketing researchers. This will be particularly true for industry practitioners. It is also true that at least some marketing scholars do use qualitative methods (for instance, in the early stages of survey design). Nevertheless, the preponderance of their attention is on the quantitative aspects of research. Our purpose here in highlighting Sieber's comments, therefore, is to serve as a reminder to marketing theorists that there is much
to be gained by learning from industry practice of qualitative methods. As one observer indicates, qualitative methodology is an area which appears to be familiar to almost everybody but is really known and understood by a much smaller number of market researchers. "To the many, it is a field of market research which lacks subtlety and requires little skill. To the expert it is the complete reverse" (Sampson 1978, p. 48).

Sieber specifies three primary areas in which qualitative fieldwork can make a contribution to surveys: survey design, data collection, and analysis. In the first case, preliminary personal interviews or participant observation on a limited sample of the subject population can help provide insights on the specific sample segments that should later be included as part of a larger survey. In this situation, qualitative fieldwork involves project investigators developing personal familiarity with a setting or group to be surveyed. This familiarity can make a major contribution to the development of a meaningful survey design by allowing the investigator to be much more specific in determining the precise sample that will be part of the survey. Much expense and later statistical data manipulation can be avoided if the initial design is the appropriate one. Let us take an illustration from organizational buying research in marketing. An investigator who was not aware that buying decisions in most large firms are made by a task group, rather than an individual, might misspecify a survey design to include only one respondent per firm, rather than all members of the buying center (Wind 1978). A preliminary set of personal interviews with a few individuals in a few organizations would have very quickly acquainted the researcher with the need for redefining survey design (Spekman and Stern 1979).

The second area where qualitative fieldwork can contribute to surveys is in data collection. Sieber indicates that exploratory interviews and qualitative observations preceding a large scale survey can yield valuable information about the receptivity, frames of reference, and span of attention of respondents. Additionally, the survey instrument can be broadened or narrowed, depending on the topics that are salient to pretest respondents. A series of focus group discussions with elderly consumers prior to a survey will, for example, reveal not only that their views concerning the efficacy of complaint behavior differ markedly from other consumers, but also that they have difficulty in reading fine print on package labels and advertisements (Phillips and Sternthal 1977; Zaltman, Srivastava, and Deshpande 1978). This first finding would greatly influence the nature of questions asked in a study of elderly consumer satisfaction and dissatisfaction behavior, and the latter finding would alert researchers to either use the telephone to collect data or have larger print on mail questionnaires.

The third contribution that qualitative fieldwork can make to survey research is in data analysis. This comment by Sieber is similar in nature to Cronbach's statement quoted earlier. Frequently, statistical results from survey data analysis can be validated by recourse to qualitative observations and informant interviews. Additionally, the entire theoretical structure that guides the analysis and interpretation of data can be derived wholly or largely from qualitative fieldwork. This is in keeping with our earlier discussion of the linking of qualitative methodology with theory discovery.

Sieber adds some other comments on the major contributions that fieldwork can make to survey data analysis. It can help interpret statistical relationships by reference to field observation; it can help selection of survey items in the construction of indices; and it can also help clarify puzzling or provocative responses to the survey instrument by resorting to qualitative field notes.

Much the same kind of argument can be made for the contribution of qualitative methods to other quantitative methods, such as experimentation. The opposite is also true, viz., there is a great deal that quantitative methodologies can contribute to qualitative fieldwork (Sieber 1973, pp. 1350–1357). Our aim here is not to try to be exhaustive, but rather to suggest how all aspects of market research activity can be enriched by triangulating quantitative and qualitative approaches.

**Conclusion**

The basic premise of this paper is that marketing scholars have too long ignored the metatheoretical implications of reliance on a single paradigm. This paradigm has been identified as that of logical positivism. In its exclusion of a more qualitative paradigm, marketing theory has developed certain inherent methods biases. These biases come from developing new theoretical contributions while using methodologies more appropriate to theory testing than to theory generation.

The dominance of one theoretical philosophy in marketing is unfortunate, in that marketing science has grown much more rapidly in the area of hypothesis testing than in the development of new, rich explanatory theories. In order to remedy this situation two major directions have been suggested. The first is to use qualitative methods when trying to generate new theory and to use quantitative methods when attempting to test this theory.

Additionally, even theory testing can gain from a triangulation of both quantitative and qualitative methodologies. The contributions that a set of methodologies can make to one another cover all aspects
of theory confirmation—research design, data collection, and data analysis.

We must reiterate that our position in this paper has been to suggest the strengths and weaknesses of both qualitative and quantitative paradigms. It is not our intention to suggest that marketing scientists can rely on one to the total exclusion of the other. However, we very strongly believe that at the current stage of knowledge development in marketing, there needs to be a far greater emphasis placed on learning about qualitative methodologies and understanding their relevance for an inquiry into the social reality of the marketplace.

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