



On Making Marketing Science More Scientific: Role of Orientations, Paradigms, Metaphors, and Puzzle Solving

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Johan Arndt

On Making Marketing Science More Scientific: Role of Orientations, Paradigms, Metaphors, and Puzzle Solving

Marketing thinking is profoundly dominated by the empiricist world view and the logical empiricist paradigm. This article argues that marketing can be enriched by opening up to alternative paradigms that capture subjective experiences, conflicts, and liberating forces.

MARKETING has been dominated by the logical empiricist paradigm stressing rationality, objectivity, and measurement. While leading to many breakthroughs, this domination has contributed to a neglect of important aspects of marketing and a lack of attention to alternative research approaches. This article revolves around paradigms.

Thomas Kuhn, historian of science, believes that paradigms refer to “accepted examples of actual scientific practice—examples which include law, theory, application, and instrumentation together—[which] provide models from which spring particular coherent traditions of scientific research” (Kuhn 1962, p. 10). Therefore, paradigms deal with the proper domain of a science, the research questions it should ask, and the rules to follow in the interpretation of the results (Bagozzi 1976, Carman 1980). While paradigms are not theories, they form the *foundation* of theories but often remain implicit, are taken for granted, and, hence, are usually unquestioned.

Paradigms are not value-free and neutral. Rather,

paradigms may be viewed as social constructions reflecting the values and interests of the dominant researchers in a science and their reference groups. For these reasons, it is no wonder that there has been a heated debate in many behavioral sciences regarding acceptable paradigms. Such a debate has also emerged in marketing. Important manifestations are the recent theory in marketing conferences (Bush and Hunt 1982; Ferrell, Brown, and Lamb 1979; Lamb and Dunne 1980), the 1983 AMA Alternative Paradigms Conference in Rhode Island, and the Fall 1983 theory issue of the *Journal of Marketing*. This article wishes to contribute to this debate by examining current and alternative paradigms as well as orientations, metaphors, and puzzle-solving activities in marketing. The article is organized as follows: The first section comments on the metatheoretic debate in marketing. Next, fundamental notions are introduced on science as research processes. The following sections deal with major research orientations and Kuhn’s theory of the cycle of paradigms. In the next step, four main world views in marketing are identified. Examples are given of important metaphors in each of the areas defined by the four paradigms. The conformity pressures in marketing science are then discussed. The last section addresses how marketing may break free from the current paradigmatic provincialism.

Johan Arndt is Professor, Norwegian School of Management. The author is indebted to James M. Carman, Johan Olaisen, Torger Reve, Jyrki Uusitalo, and Liisa Uusitalo for their useful comments.

Metatheoretic Work in Marketing

Two important points of departure for this discussion are, first, the conceptual broadening of marketing, and, second, the work on establishing quality control criteria for the certification of knowledge in the discipline. The broadening of marketing research tradition can be traced back to a pioneering article by Kotler and Levy (1969). The resulting conceptual extension, chronicled by Hunt (1976, 1983), was a functional and generic redefinition of marketing to apply to all situations involving voluntary exchanges between two or more parties (Bagozzi 1978, Kotler 1980).

Of equal importance are the attempts by Hunt (1976, 1983) and Zaltman and his associates (Zaltman, LeMasters, and Heffring 1982; Zaltman, Pinson, and Angelmar 1973) to introduce the rigorous thinking methodology from the philosophy of science generally referred to as metatheory. So far the metatheoretic work in marketing has mainly been of a normative nature, as the objectives appear to have been to develop sets of universal criteria for theory evaluation.¹

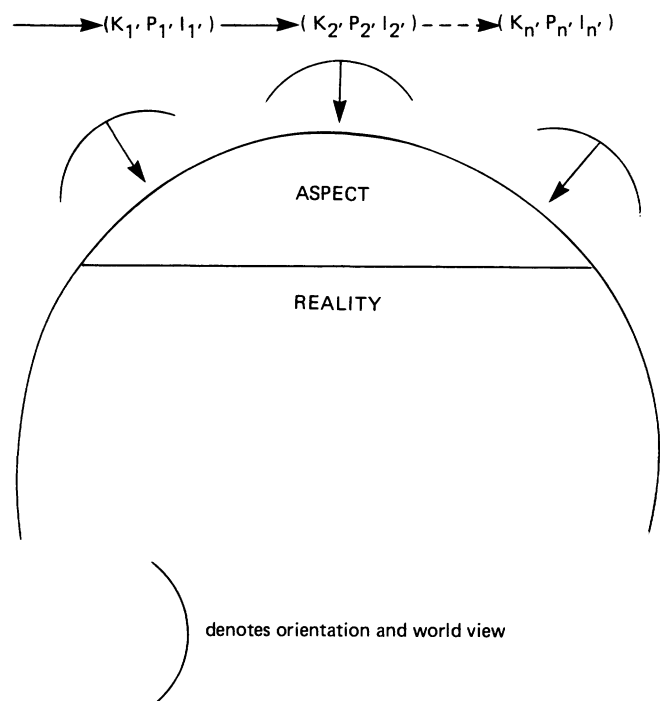
Another aspect of metatheory relates to how scientists work viewing scientific activity as a social process. Such an approach, which is often referred to as the sociology of science (Kaplan 1964), will be used here as a basis for formulating normative implications.

Elements of the Process of Research

The thoughts presented in this section build on the work by Törnebohm and his associates at the Institute of Theory of Science at the University of Gothenburg (Danielsson and Törnebohm 1968, Törnebohm 1971). This school of thought conceives science as a sequence of partly cumulative and partly noncumulative transformations of knowledge (K), problems (P), and instruments (I).

By *knowledge* is meant generalized, certified information relating to an aspect of reality. An *aspect* is a selected group of phenomena or characteristics in some sphere of the real world. *Problems* arise from the discrepancies between what is known and what is unknown, or from the uncertainties of applying generalized knowledge to concrete situations. *Instruments* or methods refer both to what Kornhauser and Lazarsfeld (1955) call "master techniques" (such as overall research design, models, etc.) and "servant techniques" (such as questionnaire construction, statistical methods, hardware facilities, etc.). Figure 1 sum-

FIGURE 1
A General Model of the Process of Research



Adapted from Törnebohm (1971)

marizes this view of the process of research and may be interpreted as follows. The aspect of interest (in this case, some feature of marketing structures or processes) is mapped by applying the initial KPI to it. In this process, the KPI complex is filtered through what is called the researcher's *orientation and world view* (in Törnebohm's terms, "perspective"), referring to the fact that there are alternative ways of approaching the aspect. The aspects studied are not given once and for all. New knowledge widens the boundaries, as happened after the broadening of marketing debate. Moreover, the aspects studied are influenced by the existing KPI complex. Similar to agenda setting, some items predominate while others never appear. This is often the case for research questioning the legitimacy of a discipline and the power structures.

The transitions, for instance, from complex (K_1, P_1, I_1) to (K_2, P_2, I_2) occur when the problems P_1 are solved so as to increase the stock of knowledge from K_1 to K_2 . In the problem solving process, new instruments may be developed or borrowed from other disciplines, hereby changing I_1 to I_2 . In several respects, the Törnebohm scheme parallels the conceptual tool of alternating between deductive and inductive thinking advocated by Zaltman, LeMasters, and Heffring (1982, pp. 97-112).

A central notion in this view is that in any science,

¹Exceptions from this rule are several of the articles in the special theory issue of the *Journal of Marketing* (Fall 1983).

there should be some balance between the K, P, and I elements. If one of the three elements is allowed to dominate the other two, the discipline becomes unhealthy. Overemphasis on formal representations of knowledge (*knowledge-itis*) may result in empirically empty formal structures irrelevant to the problems. This may be the case for some sectors within contemporary neoclassical economics. On the other hand, preoccupation with unconnected and narrowly defined problems (*problem-itis*) may mean shallow pragmatism and conceptual malnutrition. In his attack on contemporary empiricism in marketing, Anderson (1983) ventured such a diagnosis for the marketing management tradition. Finally, too much attention to instruments (*instrument-itis*) may erode the substantive core of a discipline, which instead is being more and more defined in terms of research methodology. Some marketing practitioners charge that the *Journal of Marketing Research* is suffering from such a disease by becoming increasingly less comprehensible and less relevant. Such instrument-itis in developing disciplines like marketing may partly be explained as a misdirected striving for respectability.

As pointed out above, the filter of orientation and world view intervenes between the KPI and the aspect studied. The next section presents a typology for fundamentally different research orientations. The role of alternative world views will be returned to in the discussion of paradigms.

Scientific Orientations

Scientific orientations, as applied here, refer to the accepted role of the researcher and the objectives of the research. Specifically, the orientation prescribes the relationship between the data, theories, and values of the researcher. The framework used in this section was initially formulated by Galtung (1972).

Galtung (1972) assumes that a common goal of all sciences is to establish what are called *sentences* dichotomizing their world space by including some world points and excluding others. Hence, *data sentences* are reports defining the *empirical world* by including what is observed and excluding what is nonobserved. *Theory sentences* (hypotheses), on the other hand, define the *foreseen world*, including aspects that are predicted by the underlying theory. Finally, *value sentences* refer to the *preferred world*, including what is accepted and excluding what is rejected. The Galtung framework is clearly related to Törnebohm's (1971) scheme discussed earlier. For instance, his notions of value sentences and preferred world add understanding to Törnebohm's idea of *orientation and world view*.

In scientific activity, sentences may be compared with other sentences of the same type. For instance, reliability tests imply comparisons of data sentences.

However, a distinguishing feature of science is the comparison of sentences of different kinds, such as hypothesis testing, involving a confrontation of theory sentences and data sentences.

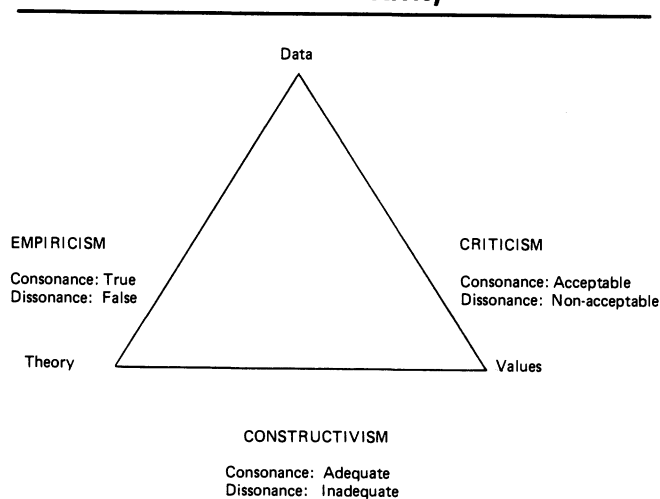
A Typology for Research Orientations

Galtung (1972) has developed a taxonomy for alternative orientations for the three pairwise sentence comparisons possible. His scheme, the so-called *science triangle*, is shown in Figure 2. Here, *empiricism* as a research orientation consists of comparing data sentences with theory sentences. If there is dissonance, the Popperian falsification principle (Anderson 1983; Popper 1962, 1972) calls for giving priority to the data sentences so that consonance is established by producing new theory sentences.

Criticism is the type of scientific activity where data sentences are confronted with value sentences. An analogy is a court of law where the police and the testimonies provide the data sentences, the law the value sentences, and the judge, prosecutor, and defense struggle over the validity of either. By the tenets of this orientation, consonance is created by producing new data sentences (by changing the aspect of reality into an acceptable condition). Studies in this tradition, such as Baran and Sweezy (1967), often use neo-Marxist approaches to study monopoly capitalism, multinational corporations, etc. Some of the work on inner-city marketing conditions, such as Sturdivant (1969), is representative of this orientation.

Constructivism implies comparing theory sentences with value sentences to see to what extent the foreseen world is also the preferred world. As shown

FIGURE 2
Research Orientations: Triangle for Bilateral Scientific Activity



Adapted from Galtung (1972).

in Figure 2, the conclusion is in terms of adequate or inadequate. In case of dissonance, theory and value sentences are about equal in priority, and both may be changed. Hence, in this way theories may be “falsified” because of their problem-solving impotence (Calder, Phillips, and Tybout 1981). Perhaps the closest to a constructivist approach is the analysis of Myers and his colleagues of the inadequacies of existing marketing knowledge in providing answers to the critical questions raised by practitioners in the discipline (Myers, Greyser, and Massy 1980).

In marketing, the most dominant orientation has been, and still is, empiricism. Hence, a few words on the empiricist orientation would seem appropriate.

Empiricism as a Research Orientation

The origin of the empiricist orientation is attributed to the philosopher Auguste Comte, who advocated positivism as a scientific method. Empiricism articulates an ideal approach for the natural sciences as well as for the behavioral sciences. This ideal regulates the relationship between the researcher, the research process, and the aspect studied. A key element in the ideal is the belief that only objective, detached observation ensures intersubjective certification. What is here referred to as empiricism really consists of different schools of thought, such as classical empiricism, falsificationism, modern positivism, etc. (Radnitzky 1970). A common denominator of the empiricist schools is that they view science as monistic, physicalistic, and reductionistic.

In principle, all scientific disciplines are believed to be a part of a higher order, basic discipline (monism). Therefore, the notions of “unified science” and “single scientific method” are central (Hunt 1976, 1983). A corollary of this view is that the hypothetico-deductive method of the unified science is elevated into being the only acceptable scientific approach.

Among the current sciences, physics seems to be closest to the ideals of empiricism (Hempel 1966). Because of the unquestionable advances in physics (and in the natural sciences in general), the goals of prediction and the criteria for good science in physics can then be used to pull up apparently less developed disciplines such as sociology, psychology, and marketing. Not unexpectedly, the transfer of such hard science criteria has been central in the metatheoretic development of marketing (Hunt 1976, 1983; Zaltman, Pinson, and Angelmar 1973).

According to the logic of physicalism, behavioral concepts may be treated in the same way as physical entities, for instance, by isolating bits of behavior from the system of which they are constituent parts (reductionism). Such bits of behavior are then reified—treated like things manipulable in the experimental laboratory

and measured by interval or ordinal scales.

Like phenomena in nature, human behavior is believed to be governed by invariant laws. As argued by Galtung (1972), ideally the tenability of a hypothesis should be invariant of variations in time, space, consciousness of the subject (who formulates the theory sentences), and consciousness of the object (whom the sentences are about). The goal of science is to uncover these laws to obtain a basis for prediction and control. The laws should be expressed in such a way that they are nonambiguous and satisfy the aesthetic demands for a harmonious system. Preferably the laws should be formulated in mathematic terms and fully formalized as a theory (Hunt 1976, 1983).

Modern empiricism is a part of the Anglo-American philosophy of science tradition, emphasizing explanation and control and placing the scientist in a spectator, observer role. In contrast, what may be called the Continental tradition (dialectical approaches, hermeneutics) focuses on understanding and views the scientist as a participant in a historical process.

Fundamental research orientations are linked to the paradigms (theory foundations) used by scientists. One of the most provocative and debated statements of the role of paradigms is the cycle of paradigms framework proposed by Kuhn (1962).

The Rise and Fall of Paradigms in Science

The essence of Kuhn's (1962) position is that paradigms serve a normative and conserving function. When a paradigm prevails in a discipline, so-called normal science is practiced as puzzle solving activity. New marginal bits of knowledge are generated by means of shared existing categories and well-known procedures. The consequence is that research results tend to be mostly known in advance. Such structuring of research offers several advantages. The majority of the researchers in a field do not have to engage in a futile search for ultimate truths. Instead, they are allowed to concentrate on “mopping-up” activities.² However, as time passes, anomalies may arise for which normal science fails to provide adequate answers. When such anomalies build up and scientists are losing faith, the field enters the crisis stage. This culminates in a scientific revolution, and a new paradigm emerges. In turn, the new paradigm goes through the same cycle.

Though more often than not paradigms result in

²These mop-up activities should not be underestimated. As Kuhn himself observes: “Few people who are not actually practitioners of a mature science realize how much mop-up work of this sort a paradigm leaves to be done or quite how fascinating such work can prove in the execution” (1962, p. 24).

“drastically restricted vision” (Kuhn 1962, p. 24), the positive functions of paradigms should not be neglected. Paradigms advance a science through their agenda setting, problem determining, constraining, heuristic, and justificatory functions (Laudan 1977, pp. 86–93).

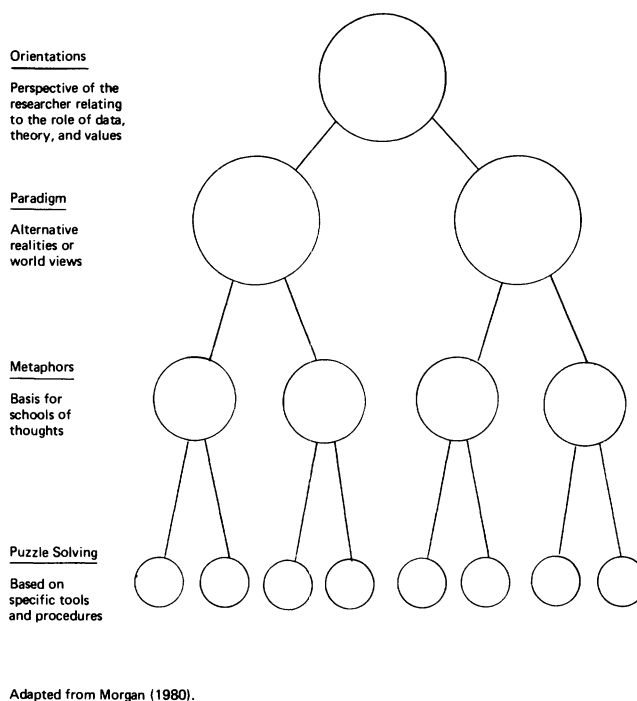
Kuhn’s (1962) elegant and provocative formulation has been subject to substantial controversy. Studies of both the natural science and social science disciplines reveal few periods in which a single paradigm has dominated (Anderson 1983). Too, the transition from one paradigm to another has often been found to be gradual. Hence, the revolutionary metaphor appears to be a colorful exaggeration. Nevertheless, the notions of a paradigmatic life cycle and the status quo function of paradigms seem to be intact.

It is commonly agreed that the paradigm concept itself remains somewhat vague and unclear. This is partly because *paradigm* has taken on different meanings over time. In the original conceptualization, the term was mainly used in the narrower meaning of “exemplary problem solutions.” Later it took on a life of its own, expanding its meaning to encompass “the entire global set of commitments shared by the members of a particular scientific community” (Kuhn 1977, pp. xix–xx). Retrospectively, Kuhn admitted having gone too far. His new position was to reserve *paradigm* to mean *exemplars*, while using *disciplinary matrix* to denote the wider interpretation, including all the shared group commitments (Kuhn 1977, pp. 318–319). *Disciplinary* refers then to the fact that the paradigm is the common possession of the practitioners of a professional discipline. The matrix component reflects its composition of ordered elements of various sorts (Kuhn 1977, p. 297).

Even in its original formulations in *The Structure of Scientific Revolutions* (Kuhn 1962), the paradigm notion was ambiguous. Kuhn has been charged as having used the paradigm notion in no less than 21 different ways (Masterman 1970, Morgan 1980). These definitions can be grouped into three main categories: paradigms as a complete view of reality or way of seeing, as relating to the social organization of science in terms of different schools of thought, and as relating to the specific use of instruments in the process of scientific puzzle solving (Morgan 1980). As proposed by Morgan (1980), these three classes of definitions may be viewed as different levels of abstraction and generality. The three levels in Morgan’s (1980) scheme are presented in Figure 3, which adds research orientation as the fourth and highest level. This *orientation* level addresses the role of data, theories, and values in the research process.

The second level contains *paradigms* which in this context can be viewed as alternative realities or world views, as suggested by Morgan (1980). These shared

FIGURE 3
Orientations, Paradigms, Metaphors,
and Puzzle Solving



world views bind the scientific communities together. The third level includes the *metaphors* representing different schools of thought or alternative approaches for using a given world view. At the *puzzle-solving* level, research is practiced as normal science, guided and constrained by accepted exemplars. The concrete research instruments operationalize the implications of the metaphors.

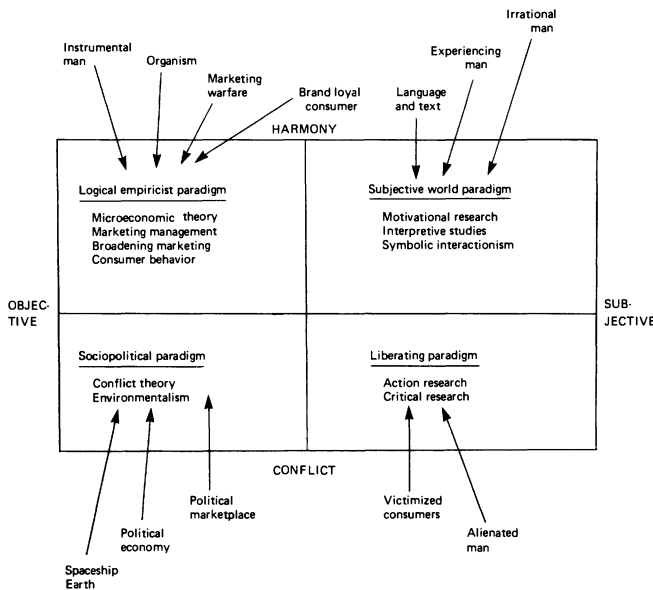
The next two sections will discuss paradigms as alternative realities and different metaphors currently in use in marketing.

Alternative Realities in Marketing

Marketing may be analyzed in terms of four main world views. These alternative realities are based on different metatheoretical assumptions about the nature of science, the subjective-objective dimension, and the explicitness of long-term conflicts in society. There are also assumptions about the nature of the marketing discipline and the study of marketing phenomena. As suggested in Figure 4, the assumptions may be classified along two dimensions, the objective-subjective and the harmony-conflict dimensions.³ The resulting

³The objective-subjective dimension was proposed by Morgan (1980). The other dimension of Morgan’s scheme is regulation-radical change.

FIGURE 4
Paradigms and Metaphors in Marketing



four paradigms in the scheme, the logical empiricist, sociopolitical, subjective world, and liberating paradigms, differ significantly in fundamental assumptions.

In its original, more narrow meaning, *logical empiricism* can be viewed as a methodological approach. As research technology, the logical empiricist paradigm can be applied also in research operations inspired by other paradigms, as will be pointed out below. However, in the wider meaning applied here, it also has substantive implications. By emphasizing measurability and intersubjective certification, the paradigm concentrates on certain variables and relations, while excluding others. The logical empiricist paradigm, reflecting empiricism as a research orientation, assumes that marketing relations have a concrete, real existence independent of the observer and a systemic character producing regularities in marketing behavior. Marketing systems are viewed as being equilibrium-seeking. These assumptions have much in common with the view of the universe as a clocklike mechanism of separate parts, all working together under immutable laws. The real world is considered essentially as harmonious and conflict-free in the long run. These assumptions are shared with the functionalist paradigm identified by Morgan (1980). Such an ontological philosophy is consistent with an ideal of science being objective and value-free.

Like the logical empiricist view, the *sociopolitical* paradigm is based on the assumption of predictable uniformities in marketing behavior. The world of marketing exchanges is defined by concrete, measur-

able, ontologically real structures. This paradigm differs from the former in explicitly recognizing the conflicts among marketing actors caused by the scarce resources and the interdependencies in marketing systems.

The *subjective world* view, which shares the assumptions of the interpretive paradigm formulated by Morgan (1980) and Pfeffer's (1982) social constructionist notion, holds that social reality does not exist in any concrete sense, but is the product of the subjective and intersubjective experience of individuals. Therefore, marketing behavior must be understood from the viewpoint of the participant rather than from the detached outside observer. Such understanding can only be attained by direct, give-and-take interaction with the members of the population in question (Calder 1977).

The *liberating* paradigm also assumes that what passes for reality is often socially created and maintained. The paradigm draws attention to the "pathology of consciousness" by identifying the psychic and social processes which constrain and control human thought processes causing alienation. The role of science then is to identify the actors in the systems, their goals, interests, and power bases, in order to describe the conflicts and contradictions of the system and show the way to emancipation. Like radical humanists, researchers inspired by the liberating paradigm are concerned with discovering how humans can link thought and action (praxis) as a means of transcending their alienation (Morgan 1980, p. 609).

Metaphors in Marketing

This section discusses the role of metaphors in science and then presents characteristic metaphors in the four paradigm groups.

Epistemological Role of Metaphors

Much of human behavior may be interpreted as attempts to make sense of the world by developing conceptions about the environment. Cassirer (1955) and Morgan (1980) note that in such orientation processes, symbols are used to make the world concrete and coherent by giving it form. Hence, meaning is provided through the media of language, art, symbols, and myths objectifying the world by means of essentially subjective processes (Levy 1981, Morgan 1980, Pfeffer 1982, Pinder and Bourgeois 1982). Words, names, and ideas are used not so much to denote external things but as tools for understanding what is out there in ways that may be shared with others. Like other individuals, scientists draw on symbolic constructs to make concrete the relationships between the subjective and objective worlds (Morgan 1980, p. 610). By this perspective, scientific activity in-

volves viewing the world metaphorically through concepts, language, and images which focus, structure, and filter the perceptions of the aspect studied. The metaphors often produce their effects by the crossing of images. An example is the metaphor of *brand loyalty*, which will be discussed below.

The metaphors used are believed to influence the framework of analysis adopted and the puzzle-solving methods used. As is the case for other abstractions and representations, metaphors are partial truths and incomplete models. No single metaphor can capture the whole of a selected aspect of reality in its full complexity. Adopting the metaphorical view of science means adopting a pluralistic perspective. Many metaphors are needed to throw adequate light on a phenomenon. In the bon mot attributed to Oscar Wilde, "truth is rarely pure and never simple."

The discussion that follows gives examples of important metaphors in the four paradigm groups identified.

Logical Empiricist Metaphors

Despite its axiomatic and deductive formal structure, neoclassical microeconomics appears to form much of the theoretical underpinnings of the metaphors in this group. In short, the microeconomic theory assumes that market processes can be analyzed in terms of supply and demand curves, which can be derived by means of marginal analysis and assumptions about utility maximization, utility and cost functions, rationality, and perfect information. Though some of the assumptions (for instance, perfect information) have been relaxed, the essence of the framework remains intact (Arndt 1981, 1983).

The traditional approaches in marketing are based on the *instrumental man* metaphor emphasizing purposive decision making. This metaphor appears to underlie much of the work in the marketing management tradition centering on the profitable manipulations of the 4 Ps in the marketing mix (Kotler 1967, 1980; McCarthy 1960). This normative micro approach, which focuses on marketing technology, has been exported to the domain of nonprofit organizations (Kotler 1982; Mokwa, Dawson, and Prieve 1981) and political campaigns (Mauser 1983) under the flag of broadened marketing (Kotler and Levy 1969).

The *organism* metaphor introduced to marketing by Alderson's (1957) notion of organized behavior systems creates an image of an internally differentiated living system attempting to survive in the context of a wider environment providing necessary resources. The metaphor seems to have inspired ongoing work on the relationship between marketing organizations and their environments, usually referred to as the contingency theory area (Jay Galbraith 1973, Weitz and Anderson 1981).

Newer work on commercial rivalry and competitive strategy, such as Porter (1980), has resulted in what may be called the *marketing warfare* metaphor (Kotler and Achrol 1981). Serving consumers best as prescribed by the marketing concept (Kotler 1967) is no longer viewed as the *only* way to success. Instead, higher profitability may be obtained through reducing or eliminating competition by using market power to chase competitors out of the market (Wish, Dholakia, and Rose 1982).⁴ The marketing warfare school uses unabashedly militaristic terms, such as objectives, strategies and tactics, campaigns, guerilla operations, line and staff, intelligence, propaganda, and target groups (the customers or the enemy?). Practices following from this metaphor may contribute to consumer alienation. It is perhaps no wonder that consumers in many countries attempt to establish countervailing power by organizing and asking for government intervention in the marketplace.

There is perhaps as much wishful thinking as empirical reality supporting the fourth metaphor, the *brand loyal consumer*. The metaphor itself is the combination of a term referring to a commercial entity (brand) and a term (loyalty) meaning trust or being faithful to a person, cause, or ideal. There are comprehensive learning theory conceptualizations of consumer behavior as brand loyalty development, such as the Howard and Sheth (1969) and the Engel, Kollat, and Blackwell (1968) models. It is true that there is overwhelming evidence of the existence of repeat brand purchase behavior in many product categories (Engel and Blackwell 1982). However, such repeat buying may not only be explained in terms of well-deserved trust and a high degree of active consumer involvement with the brand, as suggested by the metaphor. Other possible explanations are routinization of purchases of low involvement product categories, "structural loyalty" (the stores usually visited only carry a few brands), and special dealing effects. This example may serve as an illustration of the role of metaphors in overconcretizing marketing phenomena by treating the concepts used as a valid description of reality.

Sociopolitical Metaphors

The common characteristic of the metaphors in this group is that they attempt to capture the conflict for scarce resources within and between organizations.

The *political marketplace* metaphor is apparent in the pioneer writings of Thorelli (1965). A few years later, Stern and his colleagues creatively extended this approach to the behavioral aspects of channels of distribution, with a pronounced emphasis on conflict

⁴As Kotler states, "Business executives all praise competition in the abstract but try to neutralize it when it touches them" (1980, p. 116).

causes, conflict processes, and conflict resolution methods (Stern 1969). The subsequent textbook version, *Marketing Channels*, represents a refreshing and original tack in marketing (Stern and El-Ansary 1977). Its 1982 revision, however, adopted a somewhat more managerial (interorganizational management) frame of reference, emphasizing planning, organizing, and control tools, thus moving the revised version up to the *logical empiricist* quadrant in Figure 4 (Stern and El-Ansary 1982).

A related metaphor of increasing importance views organizations or cooperating networks of organizations as *political economies* (Arndt 1981, 1983; Stern and Reve 1980). In the political economy metaphor, organizations or channels of distribution are seen as "comprising interacting sets of major economic and sociopolitical forces which affect collective behavior and performance" (Stern and Reve 1980, p. 53). Hence, the metaphor directs attention to the interplay of power, the goals of power wielders, and the productive economic exchange systems.

The reality defined by the *Spaceship Earth* metaphor emphasizes the interdependencies and necessary balances in ecological systems. Work in this tradition, such as Fisk (1973), Kangun (1974), and Henion (1976), adopts a macro, sometimes even a global, perspective in underscoring the environmental responsibilities of marketing with a view to developing adequate societal governance structures and controls.

Subjective World Metaphors

The metaphors in this group question the foundations for logical empiricist and sociopolitical theory building by viewing marketing behavior mainly as a game of words, thoughts, and actions. Behavior in the marketplace is oriented as much to making sense of the past as to the future. From this follows that it may be futile to attempt to quantify human behavior through rigorous causal models distinguishing between independent and dependent variables.

The *irrational man* metaphor of the motivational research era of the 1950s focused on unconscious processes and drew on tools borrowed from clinical psychology, such as projective techniques and depth interviews, and relied on clinical judgment (Calder 1977, Dichter 1964, Newman 1957). This approach, which was mainly used in commercial market research, produced many original if not bizarre ideas, such as "Men who wear suspenders are reacting to an unresolved castration complex" (Kotler 1980, p. 147). On the basis of its subjectivity and the nonreproducibility of its results, Calder (1977) classified this tradition as "quasi-scientific." It is perhaps no wonder that the irrational man approach was washed away by logical empiricist tides in the 1960s.

The *experiencing man* metaphor uses a phenomenological approach to understand the everyday ex-

perience of the consumer. In marketing the metaphor legitimizes the use of focus groups, which can bring respondents' experiences to the surface (Calder 1977). Largely untapped resources for the further development of phenomenology in marketing can be found in the area of semiotics, that is, the general theory in philosophy of signs and symbolism. A central notion is that much of human behavior in different situations is caused by mentally stored images, dreams, events, ideas, and idiosyncracies, fantasies, and myths (Levy 1981). Hence, consumer behavior and lifestyle may be viewed as expressive behavior (Goffman 1959, Levy 1964).

Conceptually related to the image of experiencing man is the metaphor of *language and text*. As in the infamous Watergate tapes, the spontaneous language used is believed to tell more about the underlying culture, ideals, perceptions, and frustrations than polished, structured presentations. Pondy (1978) has even proposed analyzing leadership as a language game. In marketing, the language and text metaphor is apparent in the use of protocol analysis, involving asking individuals to think aloud as they engage in some decision (Bettman and Park 1980). More fundamentally, Levy has proposed to search for meaning in consumer protocols by treating responses as a special case of storytelling (Levy 1981). The responses may then be interpreted by means of the Levi-Strauss structural analysis approach to finding meaning in myths and fairy tales (Levi-Strauss 1963). An example of the unobtrusive application of the language and text metaphor in marketing is the documentary study of a computer purchase conducted by Pettigrew (1975).

Liberating Metaphors

The metaphors compatible with the liberating paradigm focus on the alienating role of marketing practices and marketing thought in modern, mass consumption society. The adherents to this paradigm usually share a critical or constructivist orientation, stress the importance of stating values explicitly, and openly side with one party in marketplace conflicts, usually the weaker, dominated party.

Many adherents of the marketing management tradition may fail to stop at the following action prescription for good marketing, attributed to Charles Revson: "In the factory we make cosmetics, and in the drugstore we sell hope" (Kotler 1980, p. 351). A liberating metaphor would in this case most likely mean questioning the value premises of the catchy adage and questioning the apparently cynical use of perfume as a substitute solution to deeply felt personal problems.⁵

⁵To the extent that the adage represents characteristic and acceptable marketing practice, it would seem just as appropriate to view marketing as the "science of illusion creation" than as the "science of exchanges."

The *alienated man* metaphor underscores marketing's role in making human beings passive and accepting the status quo in the hedonic treadmill. Outside marketing, such criticism has been associated with the so-called Frankfurt school (Helenius 1974, Marcuse 1964). An example of a marketing application is the dissertation of Firat (1978), who tried to resolve the paradox that poor and disadvantaged consumers establish "luxury" consumption patterns in expensive foods and cars. As the consumption patterns are induced by society, the notion of individual choice behavior becomes irrelevant. With measurement in the best of the logical empiricist tradition, the alienation construct has also been used in conventional marketing surveys to identify problem segments (Allison 1978, Lambert 1980).

The *victimized consumers* metaphor directs attention to disadvantaged consumer groups unable to cope with the system. The studies in this tradition have often used ordinary survey tools and descriptive statistics to dramatize the plight of the captives of inner-city marketplaces (Caplovitz 1963, Sturdivant 1969). To the empiricist, such value bound, critical analyses may be dismissed as being unscientific.

Conformity Pressures in Marketing Science

Even a cursory perusal of scholarly articles in marketing journals is bound to confirm the dominant status of logical empiricism. The principles of empiricism appear to be treated synonymously with the scientific method as such. This strong position is somewhat paradoxical in view of the fact that the empiricist orientation has been abandoned by contemporary philosophy and sociology of science over the last two decades (Anderson 1983, Radnitzky 1970). The prevalence of empiricism in marketing may be traced to the applied nature of the discipline and to the adoption of the "channel captain" perspective, viewing marketing phenomena through the eyes of the corporate executive (Tucker 1974). The control technology and instrumentalism of the logical empiricist paradigm may well be compatible with the problem solving needs and pragmatism of marketing practitioners. While these reflections touch on the issue of *why* the logical empiricist paradigm is so firmly entrenched in the discipline, the next question is *how*. Some answers are provided by the sociology of science.

Returning to the points made earlier, the logic of paradigms and metaphors implies that scientific activity is a social process and often a subjective enterprise. Social and cognitive factors are inextricably linked in production of *all* scientific knowledge. The behavior of scientists is mediated by their social mi-

lieu which tend to channel research efforts to conform with existing "normal science" tenets. Such a view clearly challenges the myth of the autonomous, objective, and open-minded researcher, creatively and doggedly pursuing the truth.

The normal sources of conformity are less dramatic and more indirect and subtle. The main power base of paradigms may be the fact that they are taken for granted and not explicitly questioned. Hence, researchers are born into orientations and paradigms rather than consciously selecting them. An important socializing role is served by the burgeoning Ph.D. programs in marketing, emphasizing model construction, hypothesis testing, data collection, and data analysis, rather than a critical orientation. Many of the leading doctoral programs do not require any courses in the philosophy of science. In such "broiler programs," courses in marketing history and comparative marketing would also appear impractical and irrelevant. The net result is that the young researcher enters the research profession with a narrow set of internalized criteria and assumptions of science, including orientation, paradigms, and appropriate metaphors.

In addition to the socialization agents mentioned above, there are external gatekeepers, such as journal editors, referees, and editors at publishing houses, who may function as "guardians of the faith." Even professional conferences act more to preserve the status quo than to disseminate new knowledge. Studies of conference behavior suggest that most participants interact with persons they already know well, persons from their own country and even from their own institution (Arndt, Grønhaug, and Troye 1980). Career pressures in combination with the research grant system also contribute to encourage programmable, puzzle solving studies. The end result is that research communities sometimes become closed systems. The chief revisionist of early Kotler (1967) is no other than later Kotler (Kotler 1980, Kotler and Levy 1969). One of the best critical comments on the early work of Jacoby (Jacoby, Speller, and Kohn 1974) is provided by later Jacoby (1978). Dissenting voices reach the major journals less easily. Hence, the launching of the *Journal of Macromarketing* is to some extent a reaction to the prevailing conventional wisdom.

In marketing it appears that the cost of heresy is high. In our enlightened age the dissident marketing scientist is not burned at the stake. Instead, he or she is rather likely to suffer the slow burnout of never emerging from the journals' revision purgatories.

As iconoclast economist John Galbraith observes:

The good scholar is the man who sticks tightly to his last, declines any concern with the truth or error of the system of which his work is a part. And such concern, since it involves the difficult task of offering more satisfactory alternatives, can usually be attacked as deficient in methodology or proof (1973, p. 8).

Breaking Free from Paradigmatic Provincialism

This article charges that marketing thought has been imprisoned by the dominant logical empirical metaphors that have drawn attention to some phenomena in the marketplace while neglecting others. As a "normal science," the logical empiricist paradigm as practiced has contributed to marginalism and the cumulation of trivial findings. An example is the methodologically well-done study reported by Hornik (1982), who "discovered" that ingratiating appeals and polite imperative statements in mail surveys expectedly increased response rates.

A first step in the emancipation of marketing thought is to understand the limiting and constraining nature of paradigms and metaphors, which are given the status of uncontested dogma. Paradigms cannot be empirically tested like theories and propositions by conventional procedures. As Kuhn points out, "insofar as he is engaged in normal science, the research worker is a solver of puzzles, not a tester of paradigms" (1962, p. 143).

This is a case for multiple paradigms and competition. When alternative paradigms compete for the allegiance of a scientific community, the interparadigmatic criticism often forces scientists to refine and improve their formulations.

As Churchman (1979) and Monieson (1981) warn, science in established disciplines develops "rationalistic" conceptions of reality as the thought processes are based on the right logic derived from rationalistic thinking. Hereby science becomes concerned about its own methodology and isolates itself through its disciplinary politics. In this way, a discipline which earlier was characterized by breadth of vision may be transformed into a narrow, isolated, and unidimensional research area (Monieson 1981, p. 18). Hence, for marketing in its present state of development, the author essentially shares the "extreme" position of Feyerabend (1975) and Olson (1983) that no rule and no set of prescriptions will ensure genuine scientific progress. Metaphors should be treated as creative devices suggesting research leads and new approaches. Marketing will hopefully be fundamentally broadened by allowing for metaphors outside the logical empiricist paradigm. The remainder of this section will present a few illustrations on how marketing may be re-directed.

First, it should be recognized that the managerial technology in marketing is culture-bound rather than universal. The main principles formulated by textbook authorities, such as McCarthy (1960) and Kotler (1967, 1980), are mainly applicable in oligopolistic North American or European markets, where a few large producers of branded consumer goods compete

for the patronage of a large number of anonymous and atomized consumers through the use of television advertising and implementation of "push strategies" to move the products out to mainly nonintegrated channels of distribution.

Even in its own backyard, there are indications that marketing is failing to measure up to expectations. In a survey of top American business executives, Webster (1981) found marketing criticized for not asking the right questions. Marketing officers were blamed for not thinking creatively and innovatively about the problems facing their companies. Instead, imitating others appears to be the prevailing strategy in North America (Hayes and Abernathy 1980). The commission appointed in the late 1970s by the American Marketing Association to assess the effectiveness of marketing science concluded that only to a small extent had marketing practitioners found the knowledge produced useful, arguing that the knowledge was potentially valuable but underutilized (Myers, Greyser, and Massy 1980, pp. 279–280). Marketing veteran and critic Monieson (1981) arrived at a similar pessimistic verdict and linked the application problems to the very different views of reality held by academics and practitioners.

A move in the right direction would be more emphasis on comparative studies (Boddewyn 1981; Dhoklakia, Firat, and Bagozzi 1980). Such studies may not only reduce the provincialism of the discipline but may also serve to critically examine current marketing practices in domestic markets.

Earlier it was pointed out that marketing has developed into an applied discipline concerned with the improvement of management practice and research methodology. To become a full-fledged behavioral science and to receive scientific legitimacy, marketing will need different goals and purposes, perhaps making exchange structures and processes the focus of attention (Anderson 1983; Arndt 1981, 1983). In the words of Levy, research into marketing should be "a pursuit of knowledge, as distinguished from its application, candidly and proudly so" (Levy 1976, p. 580). Other disciplines have found it convenient to institutionalize the distinction between applied and basic science by developing special subdisciplines, such as applied psychology, applied sociology, etc. (Anderson 1983). In marketing, the problem is rather one of spinning off a basic science from a problem solving discipline.

Finally, marketing may be broadened by bringing criticism, values, and creativity into marketing science. Many marketing scientists have come to regard as scientific only the model building and hypothesis testing parts of research, referred to by Hunt (1983, pp. 21–25) as the "logic of justification." However, prominent behavioral scientists, such as psychologist

McGuire (1973) and Zaltman and his associates (Zaltman, LeMasters, and Heffring 1982, pp. 16–17), have made a strong case for being multilingual in justification as well as in discovery. Excluding the creative, hypothesis formation stages from science may make research in marketing the domain for conceptual auditors and controllers, driving out the visionaries and bold thinkers. Since research in marketing has tended to be data centered, and since data are only defined for the past and not for the future, it is no wonder that marketing thought has been much past oriented, supporting and legitimizing past and current practices. For this reason, marketing science has become conservative and passive. To move ahead it will be necessary to break free from the conceptual colonization of empiricism. Paradigmatic ecumenism may lead to a fiercer but nevertheless more stimulating, idea-generating debate. By analogy, examples in other disciplines of how paradigmatic changes have led to discontinuous scientific progress are provided by Kuhn (1962) and Laudan (1977).

Concluding Comments

The sociology of science analysis of marketing presented in this article leads to the conclusion that orientations, paradigms, and metaphors have served a conserving function legitimizing the status quo ("what is, should be"). On the basis of the role of the re-

searcher and objectives of research, three orientations were identified: empiricism, criticism, and constructivism. Among these, empiricism was found to be by far the most important orientation in marketing. At the next level, four alternative world views were developed: the logical empiricist, sociopolitical, subjective world, and liberating paradigms. Examples were given of metaphors in each of the four groups.

By limiting itself to the empiricist orientation and logical empiricist paradigms such as instrumental man, marketing has remained essentially a one-dimensional science concerned with technology and problem solving. The subjective world and liberating paradigms challenge the assumptions of empiricism by generating metaphors resulting in the asking of quite different research questions. While no paradigm or metaphor is more than a partial and incomplete truth, the *notion* of paradigms should be viewed as an argument for paradigmatic tolerance and pluralism. The yin and yang of progress in marketing include both the logic, rigor, and objectivity of logical empiricism and the sociopolitical paradigms, and the speculations, visions, and consciousness of the subjective world and liberating paradigms.

To close with the words of Niels Bohr:

There are trivial truths and great truths. The opposite of a trivial truth is plainly false. The opposite of a great truth is also true.

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