



Central Queensland  
UNIVERSITY

**WORKING PAPER SERIES B. NO. 5**

**MARKETING: SCIENCE OR  
STANDARDISED ART**

**DEBRA CALDOW AND TONY WARD**

**Faculty of Business**

CQU - ROCKHAMPTON  
1001196636

**WORKING  
PAPER  
SERIES B**

658.8

349

ISSN 1325 – 121X

**WORKING PAPER SERIES B. NO. 5**

**MARKETING: SCIENCE OR  
STANDARDISED ART**

**DEBRA CALDOW AND TONY WARD**

Debra Caldow was a student in Directed Study in The Bachelor of business (Honours) program in 1996 under the supervision of Dr Tony Ward.

December, 1997

**CENTRAL QUEENSLAND  
UNIVERSITY - LIBRARY**

## **Abstract**

This paper aimed to answer the question of whether or not marketing should be considered a science or a standardised art. In order to address this question, it was necessary to detail the development of the varying philosophies of science. A criteria of science, often applied to the discipline of marketing, was evaluated. The dominant philosophy of science in marketing was identified as empiricism and the strengths and weakness of this approach were evaluated against a relativist approach. The need to develop a marketing paradigm was identified. A marketing philosophy of science, labelled constructive empiricism, was proposed. The conclusion of the paper suggests that it is impossible to answer this question without any firm ontological answers to other sciences. However, any attempt to answer the question contributes to the development of a research methodology that the discipline of marketing will find both relevant in use and rigorous in approach.

## **Introduction**

The question this paper was supposed to address was: Is marketing a science or at best a standardised art? However, standardised art seems a contradiction in terms. By its very definition 'art' cannot be standardised. Standardised can be defined as 'an authoritative or recognised exemplar of correctness, perfection or some definite degree of any quality' (Oxford English Dictionary, 1989: 505). Thus, if 'standardised' was applied to art, then it would assume that art reaches a certain quality and remains at that level at all times. This definition is problematic when linked with art, which is most generally considered a creative process. Art can be defined as 'the application of skill to the arts of imitation and design....' (Oxford English Dictionary, 1989: 657). This definition seems to conflict with the notion of 'standardised art' because it is impossible to exactly replicate the same amount of skill to a specific task each time. This is not useful to marketing because marketing needs to be able to replicate its methods *ad infinitum*. Another way to define art is 'A practical application of any science; a body or system of rules serving to facilitate the carrying out of certain principles' (Oxford English Dictionary, 1989: 657). While it is possible to work with this definition it seems to make art synonymous with science. Therefore, the issue at the heart of this topic is whether marketing is or is not a science. Accordingly, this paper will address only this issue.

The traditional approach to this question has been to define science and then to determine if marketing fits the criteria required (Peter & Olson, 1983). There are numerous examples of authors who have taken this approach (for example, Anderson, 1983; Buzzell, 1963; Hunt, 1991; Hutchinson, 1952; and O'Shaughnessy & Ryan, 1979). However, in order to do this effectively, it is first necessary to define science by tracing its history and its subordinate role within philosophy.

### **Ancient Philosophy**

In ancient Greece, a science was considered to be any body of knowledge which was ordered and teachable. This definition has changed over the centuries and science has now become synonymous with analytical and empirical studies; conversely, philosophy has become synonymous with thought and argument (Pojman, 1992). However, at the same time, science and philosophy are interrelated words (O'Shaughnessy & Ryan, 1979). This is evident by the fact that the English word 'science' was not developed until the late 19th century, and until that time the closest approximation in meaning to the term science was natural philosopher (Hunt, 1991). Thus, it is useful to consider the term philosophy in the context of the philosophies of science.

The definition of philosophy as the Western world understands it originates with the ancient Greeks, and it can be translated as being a close approximation of a 'love of intellectual curiosity' (Hunt, 1991:216). The development of Western philosophy can be clearly delineated from the development of Eastern philosophy, which was developed along "sage" lines of obtaining knowledge from a sage or master. Eastern philosophy, then, implies that the knowledge of the student will never exceed the knowledge of the sage. This opposes the ancient Greeks concept of philosophy, which was based around critical discussion and, thus, was progressive in the development of knowledge (Hunt, 1991).

Although it is not possible to know with certainty the beginnings of Western philosophy, one of the early important contributors was Thales who proposed that the earth was made from water. Although this proposition was later proven incorrect, it represented one of the first steps away from mythical explanations of the world and

ontological questions. Pythagoras founded the Pythagorean school, which took this anti-myth approach further and proposed that the universe could be explained through mathematics. This proposition was founded, like all Pythagorean propositions, upon contemplation and not on inquiry and observation which were considered irrelevant (Hunt, 1991).

Socrates, Plato and Aristotle made huge contributions to epistemology. Socrates foregrounded fundamental questions about reality, knowledge and human nature (Gutek, 1988). Socrates believed the key to understanding knowledge was through critical questioning so that what was considered knowledge was not built on an erroneous premise. Plato took this proposition of gaining knowledge through critical questioning a step further and suggested that for knowledge to develop critical discussion was necessary. Aristotle expanded the areas of inquiry in philosophy to such an extent that it came to include what we now know as science, and dealt with areas such as astronomy and physics. Aristotle, it might then be argued, became one of the first philosophers of science. One of Aristotle's most important contributions was what is referred to as syllogistic logic. This proposed that science began with an observation, which progressed through induction to the development of explanatory principles, and these were then used to deduce the observation. Aristotle integrated Plato's knowledge through critical discussion with the concept of knowledge by observation (Hunt, 1991).

After the death of Aristotle, the philosophy of science entered what may be termed as a hiatus state. The re-emergence of philosophy did not occur until around the 13th Century and was initiated by the Roman Catholic church. However, knowledge was not to be found by critical discussion or observation. Knowledge was to be found by the interpretation of the works by Aristotle. This then was similar to Eastern philosophy, and Aristotle became a kind of sage whose knowledge could not be exceeded, it could only be deciphered and interpreted (Hunt, 1991).



## **Philosophies of Science**

### **Scientific Revolution**

The rise of modern science began in approximately 1550 AD. The period between then and the 1700s played such a pivotal role in history that it has come to be known as the period of the 'scientific revolution'. The achievements during this period include: Kepler's laws of planetary motion; Gilbert's work in magnetism and electricity; Vesalius work on anatomy; Galileo's laws of descent; and, perhaps most notably, Newton's laws of motion (Hunt, 1991).

The rise of modern science was characterised by a rapid growth in knowledge across many subject areas, and was considered cumulative by nature. Galileo built on the works of Kepler and Copernicus; and Newton built on the works of Galileo among others. However, the most important aspect to the philosophy of science was the development of the method of inquiry used by these scientists. This method embraced Plato's critical discussion concept, Aristotle's observational concept, and the Pythagorean school's proposition that mathematics was an essential part of explanation. In addition, the new component of experimentation was added. This method formed the basis of empiricism as it exists today (Hunt, 1991).

There was considerable opposition to this rise of modern science. This was led by the church, and reinforced by academic institutions whose methods of inquiry remained scholasticism (that is, the pursuit of knowledge by interpretation of others works, especially works from Classical Greece). The hostility to science was also evident during the industrial revolution where a demarcation between science and technology was made, and the difference between science and technology, or theory and practice began to be debated (Hunt, 1991).

### **Classical Empiricists**

From the scientific revolution emerged various differing philosophies of science. One group can be termed the classical empiricists. This group believed that all knowledge was arrived at by experience and observation. Sir Francis Bacon was the major exponent of this school of thought. Bacon argued that science starts with observations and inductively proceeds towards general principles that are proven true by

observation. John Locke supported this view and argued that humans were born devoid of knowledge (Hunt, 1991).

### **Rationalists**

Rationalists were an opposing school of thought to the classical empiricists. A leading rationalist was Rene Descartes who argued that in addition to knowledge through observation using our senses, humans also have innate knowledge which is used prior to observation and contributes to the creation of knowledge (Hunt, 1991).

### **Idealists**

Another school of thought was idealism. The stance of the idealist philosophers was that 'the external world does not exist independently of its being perceived' (Hunt, 1991:242). Berkeley argued that the only reality is that which is perceived. Hegel was perhaps the best known exponent of idealism. Hegel's basic premise was that only reason and ideas are real, and these are unobservable and make the philosophies of science which espouse observation and experimentation illogical (Hunt, 1991).

Like many philosophical propositions, the idealist school of thought attracted criticism. Moore attacked idealism and argued that it confused the act of perception with the object being perceived. Russell reinforced this view with his argument that there is knowledge outside our perception of knowledge. Wittgenstein, apart from suggesting philosophy was built on pseudo problems and the only function of philosophy was to critique language, influenced the beginnings of logical positivism (Hunt, 1991). This was mainly due to his verification theory which asserted that statements and propositions were only meaningful if they were empirically verified (Anderson, 1983).

## **Modern Philosophies of Science**

### **Logical Positivists**

In the 19th century, science was founded on the assumption that it could attain absolute knowledge. Much of this supposition was based on Newtonian physics which was considered absolute knowledge for over 200 years. Accordingly, theory development was based on Newtonian laws. However, this situation was undermined, in part, by Einstein's Special Theory of Relativity in 1905. This led to a period of uncertainty in

science from which the logical positivist movement grew. This school of thought had as its central doctrine Wittgenstein's verification theory. In addition, this movement contributed to the philosophy of science by instigating the formation of the language of science. Thus, philosophy and science were separated so that 'by means of philosophy statements are explained, by means of science they are verified' (Schlick quoted in Hunt, 1991:271). The language of science was, thus, developed by a combination of critical discussion, formal logic and verification. Once science may have had two aims, one to develop knowledge which was certain, and another to progress to a deeper understanding of knowledge; but now, according to the logical positivists, science should concentrate only on the development of certain knowledge. This was in part a type of radical empiricism based on the concept of the infallibility of observation as the basis of knowledge (Hunt, 1991).

### **Logical Empiricists**

However, the logical positivists soon found there were problems with the verification theory because it was impossible to guarantee that an absolute truth had been attained through empirical tests (Anderson, 1983). Moreover, to retain the verification principle meant that, in essence, logical positivists were saying there was no such thing as scientific laws because they could never be conclusively verified. As a result of this impasse Carnap, in 1936, wrote a paper 'Testability and Meaning' which addressed this verification problem and suggested the verification principle could be replaced with a more liberal approach. This approach was the 'testability criterion' which implied that, rather than there being certain knowledge, there would be knowledge with increasing confirmation (Hunt, 1991). Where logical positivism required conclusive verification of a theory, logical empiricism acknowledged that conclusive verification, no matter how large or longitudinal the study is, may prove impossible (Peter & Olson, 1983).

### **Falsification Theory**

Also during this period, Popper proposed the falsification theory. Popper argued that it is not feasible to make unrestricted generalisations (theories and laws) based on observations because, regardless of the number of observations, it is impossible to be certain. However, it is possible to conclusively falsify because only one such



observation of a theory or law is needed to disprove it (Charlesworth, 1982). Science, therefore, progressed by eliminating hypotheses through falsification, and by arguing that only propositions that could conceivably be falsified lay in the realm of science (O'Shaughnessy & Ryan, 1979).

### **Relativistic/Constructionists**

In addition, other philosophies of science included the relativistic/constructionist approach (Peter & Olson, 1983). This approach took into account the effects of scientists interactions, the individual scientists beliefs and values, and the subjective nature of scientists observations. This movement is often referred to as historicism (Peter et al., 1982). The views of Feyerabend were an extreme of this philosophy of science. Feyerabend was a strong critic of empiricism, and argued that science has benefited just as much from hunches and guesses as it has from experimentation and empirical testing. Feyerabend provides evidence of this by suggesting that Copernicus's theory of circular motion came in part from other scholars mystic faith in the idea that the earth must spin around its axis (Charlesworth, 1982).

### **Paradigms**

Almost all early philosophers of science assumed that scientific development was evolutionary. However, in 1962 Kuhn introduced the term paradigm to the English language in 'The Structure of Scientific Revolutions'. A paradigm, in essence, refers to the boundaries of thought. Kuhn argued that science was not evolutionary because it was impossible to compare Aristotelian science to Newtonian science because they operated in different paradigms of thought. Therefore, Kuhn's argument was that science is determined by the dominant paradigm of the particular period (Charlesworth, 1982). Thus, paradigms are supposed to enhance the understanding of how different views of science can exist.

### **Historical Empiricists**

In the 1980s there was a move away from the approaches of Kuhn and Feyerabend and back towards empiricism and realism. Lakatos was a historical empiricist who refuted Kuhn's idea of paradigms running separately. Lakatos argued that science was progressive and builds on theories rather than starts from the beginning each time.

This was because all theories present facts, perhaps only minor ones that have not previously been known, but which nevertheless contribute to knowledge (Hunt, 1991).

### **Scientific Realists**

The historical empiricists were joined by the scientific realists, who argued that there was not a general theory of science. Scientific realism purported that science develops by discovery, improving explanations of existing entities, improving measurement techniques and discovering causality. The major difference between the scientific realists and logical empiricists related to observation. Logical empiricists argued that all those entities that were not observable were theoretical. Realists did not see a demarcation, instead to them the theoretical terms were just parts of the theory even if they were not observable (Hunt, 1991). Hunt renamed this approach to the philosophy of science as 'modern empiricism'.

Hunt (1991) claims that modern empiricism falls between the positivist/empiricist approach and the relativist/constructionist approach. The components of modern empiricism are detailed in figure 1.

FIGURE 1: **Some Philosophies of Science**

Positivist/Empiricist	Modern Empiricism (Hunt)	Relativistic/Constructionist
Science discovers reality	Science can never discover reality	Science creates many realities
Only the logic of justification is needed to understand science	It is useful to distinguish between the procedures used in knowledge claims discovery from those used in justification of knowledge claims	Process by which theories are created, justified and diffused are necessary for an understanding
Science can be understood without cultural, social, political and economic considerations	Justification of knowledge in science should be independent of these factors	Science is a social process
Science is objective	Science is more objective than non science	Science is subjective
Scientific knowledge is absolute and cumulative	Scientific knowledge is never absolute	Scientific knowledge is relative
Science can discover universal laws	Some laws may be universal others probabilistic	Science creates ideas dependant on context
Science comes closer and closer to the truth	Absolute truth is not knowable	Truth is subjective
Science is rational because it is logical	Science is rational because it develops theories and models	Science is rational because it seeks to improve individual and societal well being
There are procedures for doing good science	There are norms for doing good science	The way of doing good science depends on the context
Scientists test their theories rigorously	Theories should be tested	Testing is done in the context of marketing
Measurement procedures do not influence what is being measured	Perfection in measurement procedures is impossible	Nothing can be measured without changing
Data provides an objective basis to test theory	Empirical testing is a good basis for the acceptance or rejecting of theories	Data is created and interpreted using theories and is theory laden in itself

Source: Adapted from Hunt, 1991:408

### **Summary of the Philosophies of Science**

As can be seen from this brief history of the philosophy of science, there are numerous metatheoretical criteria for assessing science. Researchers who consider themselves logical positivists believe that the truth will be learned by empirical observation and there is only one truth. Logical empiricists hold similar views about empiricism; however, they acknowledge the futility of searching for certain knowledge. Instead, they argue that as theories are developed, humanity will become increasingly closer to the truth but are unlikely to ever attain certain knowledge. Scientific realists adopt a more unrestricted approach to empiricism, which allows for even more uncertainty in empirical evidence (Hunt, 1991). By contrast, researchers with a relativistic/constructionist approach believe in many realities which are relative to a specific context. This view suggests that scientists construct realities through a combination of social agreement on the meaning of a theory and empirical observations (Peter & Olson, 1983).

### **A Criteria of Science for Marketing**

#### **Introduction**

As noted above, the usual approach to this topic is to define science and then to test marketing against that definition. It has been suggested that in order for a discipline to be called a science it should meet four specific criteria:

- A classified and systematised body of knowledge.
- Organised around one or more central theories and a number of general principles.
- Usually expressed in quantitative terms.
- Knowledge which permits the prediction, and, under some circumstances, the control of future events.

(Buzzell, 1963:67)

**Classified and Systemised Body of Knowledge**

The first criterion is a classified and systemised body of knowledge. Most would agree this criterion has largely been met. The breadth of marketing texts is enormous, and the existence of the various schools of thought, which are detailed by authors such as Sheth, Gardner and Garrett (1988), support the systematic nature of marketing knowledge. Early researchers in marketing were prolific in their attempts to define the concepts of marketing and classify the phenomena of the discipline (Bartels, 1951).

**Central Theories**

The second criterion is that a science must be organised around one or more central theories, and a number of general principles. It is this area, in particular, that seems to be problematic for marketing. Rudner (1966: 10) suggests that theoretical schema is made up of 'a systematically related set of statements, including some lawlike generalisations, that is empirically testable'. These three criteria then serve as the basis for determining if a structure can be considered a theory. Therefore, if marketing is to be defined as a science, then it should identify a structure which could be called a central theory of marketing. A number of authors argue that marketing does not yet have a central theory (for example, Buzzell, 1963; Sheth, Gardner & Garrett, 1988; and Hunt, 1991).

Theory development in marketing has been a contentious issue, perhaps because the scope of marketing is extensive. At the 1972 conference of the American Marketing Association, Philip Kotler made some observations regarding the way to classify marketing phenomena. These observations lead to the development of the Three Dichotomies Model of Marketing. This model is shown in figure 2.

FIGURE 2: The Three Dichotomies Model

Positive	Normative	Positive	Normative
Profit Sector Micro Concerned with individual consumer behaviour How firms determine prices, products, promotion, channels of distribution Case studies of marketing practices	Profit sector Micro Concerned with how firms should make marketing mix decisions How firms implement marketing concept	Nonprofit sector Micro Concerned with non profit organisations marketing strategies Purchasing and marketing of public goods	Nonprofit sector Micro Concerned with how non profit organisations should make marketing mix decisions
Profit Sector Macro Concerned with the approaches to marketing marketing functions marketing and society	Profit sector Macro Concerned with how marketing can be more efficient and whether it should have social responsibilities and controls	Nonprofit sector Macro Concerned with public goods advertising and distribution issues	Nonprofit sector Macro Concerned with issues related to stimulated demand for public goods

Source: Adapted from Hunt 1991, pp. 10-11



These dichotomies consist of: profit/nonprofit sector; micro/macro; and positive/normative. However, a definition incorporating all eight cells but excluding other phenomena would be difficult to devise. It would be difficult to include both the normative dimensions of the practice of marketing and the positive dimensions of the study of marketing. However, in order to build a general theory of marketing, it would seem essential that each cell be included (Hunt, 1976).

Accordingly, this model is often used to illustrate whether marketing should be considered a science. Hunt (1976) suggests that if the conceptual domain of marketing is profit/micro/normative, then marketing is not a science. However, if the domain includes micro/positive and macro/positive cells, then marketing could be a science. Hutchinson (1952) argues against the inclusion of the profit/micro/normative by stating that it is inappropriate to suggest a scientist's search for knowledge is the same as a marketer's search for customers. However, Zaltman and Bonoma (1979) suggest that this separation of theory and practice is a false dichotomy perpetuated by practitioners and academics. Zaltman and Bonoma (1979: 330) argue for the application of '...a theory-in-use approach'. This would involve moving from successful practice, to rules of thumb, and then to theories. This is an inductive approach, as opposed to the norm of science, which is predominantly a deductive approach (Zaltman and Bonoma, 1979).

### **Additional Criteria**

The problems associated with determining whether marketing has a central theory often overshadows the final two criteria of a science. The third criterion is that the theories or principles can usually be expressed in quantitative terms. The final criterion is that the knowledge of the science allows for the prediction, and sometimes control, of future events. However, it does not serve any useful purpose to consider these criteria separate from the first two because the four criteria form a linear approach to the development of a science. Therefore, until the second criterion of a central theory is met, it is irrelevant to question the adherence of marketing to the final two criteria.

### **Evaluation of the Criteria**

There are suggestions that Buzzell's criteria of a science may be overly restrictive, particularly concerning the criterion of one or more central theories. As Hunt suggests (1976:25) "This requirement confuses the successful culmination of scientific efforts with science itself". Hunt goes on to note that chemistry was considered a science before many of its theories were developed. This is an important point because it suggests that the purpose of science, which is to formulate theories, can be at odds with the criteria used to define science.

### **What is the Dominant Philosophy?**

Some authors argue that the dominant philosophical approach in marketing is logical empiricism (Peter et al., 1982). Hunt (1991) suggests that to use the word dominant is inappropriate because it has negative connotations. However, based on Hunt's own criteria of science, in particular the emphasis on theory building, it is not unreasonable to suggest that a form of empiricism is the accepted model of a science for marketing theorists.

### **What Makes a Science?**

It is important to note that science is not only judged on the nature of its generalisations, but also on its subject matter and its investigative methodology. Some argue that marketing is too subjective in nature to yield objective theories (Bartels, 1951). In addition, the fact that marketing is not considered a science raises questions of whether this is due to its limited history as a field of study or its subject matter (Bartels, 1951). Marketing is not a distinct field of investigation but, rather, appears to be based on other disciplines, such as psychology, economics and sociology. While marketing does have unique aspects, these tend to be of a technical and practical nature (Bartels, 1951). However, while this point is true, it lacks relevance because if other disciplines like psychology and sociology were traced back to their essence, then they would implode on themselves and become parts of other disciplines like biology, which again can be imploded into physics. Instead these disciplines become bricks for marketing and provide the base on which marketing theory is built (Baumol, 1957).

### **Natural Versus Social Sciences**

Within the natural sciences there is a great deal of uniformity, and predictions can be made with a high degree of certainty. However, within the social sciences, this uniformity is less prevalent, but still the methodology of the natural sciences is applied. This, then, results in generalisations which are not considered to be as reliable as those produced by the natural sciences. The basis of this claim relies on the assumption that human behaviour cannot be predicted with the same degree of certainty as phenomena in the natural world. However, while inconsistencies in individual behaviour exist, there is still enough uniformity in group behaviour to establish grounds for making authoritative predictions (Bartels, 1951).

### **The Dangers**

It is important to consider that if marketing continues to aspire to be recognised as a science, will it have any positive or negative effects on the discipline? Under the current paradigm of the definition of a science, supported by the majority of marketers, the discipline must search for a general theory. As Hunt (1991) argues, scientific theories or models must both explain and predict phenomena. However, this may be an unrealistic goal, and its attainment may contribute nothing except allowing marketing to gain the status of science at the expense of the practical applications of the marketing discipline. Marketing must acknowledge that it is also a business application, and so it is required to perform certain economic functions.

Hunt (1976) discusses the eminence attached to the word “science”. Conferring the word science on a discipline promotes that discipline's status. However, as Hunt (1976) notes, the word science is most often conferred on a discipline after it has matured in its development and has developed central theories. Kaplan (1964) notes, there are scientists who, in the search for scientific status, worry about how it is done more than what is done and, accordingly, often ‘...substance gives way to form....’ (Kaplan, 1964:406). There is a bias towards physicalism in the behavioural sciences. Scientific method is sometimes confused with specific techniques, and so scientific status is only accorded to those disciplines using the accepted techniques (Kaplan, 1964).

### **Towards a Science of Marketing**

There is a need within the marketing discipline to accept that while the pursuit of a general theory is an admirable one, there is also a need to acknowledge the importance of the subject matter and the society within which marketing operates. Therefore, it may be pertinent to accept the validity of varying degrees of theory, and accept that mid-range theories and probability statements have value. It may be time for marketing to exert its independence from other disciplines already termed sciences by arguing that each discipline must work within its own framework. While there is little doubt that empiricism offers both rigour and valid scientific methods to marketing, it also constrains the discipline within the boundaries of natural science and ignores the behavioural and business aspects of marketing.

Therefore, there is a need for a paradigm shift which applies solely to marketing. In some ways Sheth, Gardner and Garrett (1988) have provided a starting point with the six criteria they use to evaluate twelve schools of marketing thought. The criteria Sheth, Gardner and Garrett use are: structure; testability; richness; empirical support; specification; and simplicity (STRESS). The use of these six criteria is, in part, a bridge between empiricism and relativism. Structure and specification evaluate the theory construct. Testability and empirical support evaluate the theory's relationship to reality. Richness and simplicity evaluate the potential applications of the theory. However, as Hunt (1991) notes, it should also be acknowledged that there is a danger in the assumptions that Sheth, Gardner and Garrett make in relating these six criteria to the varying philosophies of science. However, Hunt appears not to acknowledge that this attempt by Sheth, Gardner and Garrett has validity, perhaps even more validity than his approach of constructing a paradigm operating between positivism/empiricism and realism which appears to ignore relativism. However, a direct comparison between Hunt's modern empiricism and Sheth, Gardner and Garrett's STRESS criteria is difficult to make as both seem to have considerable merit. Thus, it is necessary to accept that science, and its definition, is a human invention and, consequently, does not have to remain stagnant because of a perceived predetermined position.

### **Constructive Empiricism**

It is recommended that marketers look to establish a marketing paradigm. This would take the form of a combination of the relevant philosophies of science designed to add rigour and relevance to theory development in marketing. This amalgam of philosophies might be called “constructive empiricism”. The constructive component takes into account the relativist/constructionist approach to science. Moreover, the term constructive is used to reiterate the productive nature of this philosophy. The term empiricism is used because the philosophy recognises the importance of empirical support in theory construction and general knowledge pursuit.

The components of the constructive empiricist philosophy of science are likely to include;

- Absolute truth is unattainable.
- Scientific knowledge is never absolute.
- Science can never discover reality.
- Science can only be understood by referring to the society in which it operates.
- Science is rational because it seeks knowledge, but it will operate within the society it exists.
- Science is subjective, but rigour will assist in its objectivity.
- There are norms for doing good scientific research.
- All processes of theory creation, justification and diffusion are necessary for understanding.
- Universal laws may be impossible in marketing.
- Marketing operates in the context of society, and its theory is thus constrained by society.
- Initial ideas may originate through chance, but will develop through rigour.
- Theories must be tested rigorously.
- Empirical testing is a good basis for accepting or rejecting theories.
- Perfection in measurement procedures is impossible.
- Marketing is a business function.

While the above components do not encompass everything that a marketing philosophy of science might, this proposed model provides a starting point for further discussion and allows for input from marketing practitioners.

## **Conclusion**

Whether marketing can be called a science is a purely subjective decision based on the individual's philosophical definition of science. Kavanagh (1993: 5), referring to the Hunt versus Anderson debate of the preferred philosophy of science, said the '...debate is locked into the epistemological dichotomy....'. This comment applies equally to the question of whether marketing is a science. In short, while this is an interesting topic of discussion, the question will never be solved because, in essence, it is a question of ontology. It requires a single, universally accepted, definition of science, which cannot be arrived at until an absolute answer to the meaning of existence is produced.

Meanwhile, to advance marketing as a scientific discipline, it is time to actively discuss and improve on ideas such as Sheth, Gardner and Garrett's (1988) STRESS criteria and Hunt's (1991) modern empiricism. It is these ideas that represent the closest point to an equitable solution. There is no doubt that empiricism and relativism both have points of merit, which are points for further discussion. As Lutz suggests, it may be likely that '...a sort of contingency model will be more appropriate, with a particular approach to science being useful in one context but not in others.' (Peter et al., 1982:4).

This perceived need to have an absolutist approach to scientific method, where there is only one right way, must be abandoned. Instead, it should be accepted that there are many rules of science, and that they will be applied relative to the context of the research. Popper (Hunt, 1976: 23) stated, when discussing and defining the word philosophy, that he saw '...no merit in the arbitrary proposal to define the word "philosophy" in a way that may well prevent a student of philosophy from trying to contribute ... to the advancement of our knowledge of the world'. This statement applies equally to the question of what is science. It is important to remember that science involves the seeking of knowledge (Hunt, 1991). It is in this area that marketing practitioners should be judged on whether they deserve the term scientists, and on whether marketing deserves the term science.



## References

- Anderson, P.F. 1983. 'Marketing, scientific progress, and scientific method' in *Marketing Theory: Classics and contemporary readings*, eds. Sheth, J.N. & Garrett, D.E. 1986, South-Western Publishing Ohio.
- Bartels, R. 1951. 'Can marketing be a science?' in *Marketing Theory and Metatheory*, ed. Bartels R. 1970, Richard D Irwin, Inc, Homewood, Illinois.
- Baumol, W.J. 1957. "On the role of marketing theory" in *Marketing theory: distinguished contributions* 1984, eds Brown S.W. & Fisk R., John Wiley & Sons, Inc., New York.
- Buzzel, R. 1963. 'Is marketing a science?', in *Marketing theory: distinguished contributions*, eds. Brown, S.W. & Fisk, R.P. 1984, John Wiley and Sons Inc.
- Charlesworth, M. 1982. *Science, non-science & pseudo-science: And Feyerabend on defining science*, Deakin University Press, Geelong, Victoria.
- Gutek, G.L. 1988. *Philosophical and ideological perspectives on education*, Allyn & Bacon, Boston.
- Hunt S.D. 1976. 'The nature and scope of marketing', *Journal of Marketing*, vol. 40, July, pp. 17-28
- Hunt, S.D. 1983. 'General theories and the fundamental explananda of marketing', *Journal of Marketing*, vol. 47, Fall, pp. 9-17
- Hunt, S.D. 1991. *Modern marketing theory: critical issues in the philosophy of marketing science*, South-Western Publishing Ohio.
- Hutchinson, K.D. 1952. 'Marketing as a science: an appraisal', in *Marketing Theory: Classics and contemporary readings*, eds. Sheth, J.N. & Garrett, D.E. 1986, South-Western Publishing Ohio.

Kaplan, A. 1964. *The conduct of inquiry: methodology for behavioural science*, Chandler, San Francisco.

Kavanagh, D. 1993. 'Hunt v Anderson: Round 16', *Proceedings of Rethinking Marketing Conference*, University of Warwick.

O'Shaughnessy, J. & Ryan, M.J. 1979. 'Marketing science and technology', in *Marketing Theory: Classics and contemporary readings*, eds. Sheth, J.N. & Garrett, D.E. 1986, South-Western Publishing Ohio.

Oxford English Dictionary, 1989. 2nd edn, Clarendon Press, Oxford.

Peter J.P., Anderson P.F., Brodbeck, M., Hunt S.D., Lutz R., Olson J.C., Ryan M.J., & Zaltman G. 1982. 'Current issues in the philosophy of science: implications for marketing theory - a panel discussion', in *Marketing theory: distinguished contributions* 1984, eds Brown S.W. & Fisk R., John Wiley & Sons, Inc., New York.

Peter, J.P. & Olson J.C. 1983. 'Is science marketing', *Journal of Marketing*, vol. 47, Fall, pp. 111-125.

Pojam, L.P. 1992. *Philosophy: The quest for truth*, 2nd edn, Wadsworth Publishing Company, Belmont California.

Rudner, R.S. 1966. *Philosophy of social science*, Prentice-Hall, Inc., Englewood Cliffs.

Sheth, J. Gardner, D.M. & Garrett, D.E. 1988. *Marketing theory: evolution and evaluation*, John Wiley & Sons, New York.

Zaltman, G. & Bonoma, T.V. 1979. 'The lack of heresy in marketing', in *Marketing theory: distinguished contributions* 1984, eds Brown S.W. & Fisk R., John Wiley & Sons, Inc., New York.

CENTRAL QUEENSLAND UNIVERSITY

FACULTY OF BUSINESS AND LAW

WORKING PAPER SERIES. B.

LIST OF WORKING PAPERS SERIES. B.

Austin, S., & Ryan, L., *Financial Management in the Queensland Public Sector 1989 – 1995*. (December, 1997).

Purchase, S., & Ward, A., *What is, or should be, the proper domain of marketing theory?* (December, 1997).

Patel, M., & Ryan, L., *Health Insurance – Fraser to Hawke The Introduction of Medicare*. (December 1997).

Caldow, D., & Ward, A., *The Adoption Process: Theory or Conjecture*. (December, 1997).