Interpretation in Social Life, Social Science, and Marketing

John O'Shaughnessy

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Interpretation in Social Life, Social Science, and Marketing

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Preface

Interpretation is pervasive throughout all human activities to cope with problematic situations, vagueness and ambiguity. And all methods used in academic disciplines involve interpretation in one way or another, with interpretation on occasion being the sole methodology employed, as in the humanities. All this suggests interpretation might be a worthy topic to pursue. I have thought this for many years and found myself introducing the topic into most of the courses in organization and marketing management I have taught.

This book evolved over the years from teaching and discussions with colleagues. The contexts in which actions take place vary widely, which vitiates the search for universal 'laws' in the social sciences. This together with a growing endorsement of methodological pluralism has increased the interest in interpretation and interpretive methods for understanding human behavior. Not surprisingly, responding to this interest there have been many articles and books devoted to the topic but all have restricted themselves to a narrow focus, failing to take account of the varying nature of interpretation throughout the academic disciplines and social life. Books on interpretation focus on hermeneutical methods as if everything else about interpretation is unproblematic. What distinguishes this book is its wide coverage, showing interpretation as a universal problem to be overcome in all walks of life.

We all interpret from some standpoint or perspective. All intellectual activity takes place constrained by some organizing conceptual scheme that reflects our perspective on the issue at hand. Perspectives can bias outlooks and color interpretations. The perspective espoused is thus important as some perspectives for certain problems are more enlightening or explanatory than others. The various scientific paradigms in social science, like behaviorism or cognitive psychology, are perspectives that act as conceptual lenses to guide research and the interpretation of findings. Although often viewed as competitors, rival paradigms may either offer additional windows onto a problem or seek answers to entirely different questions. The belief that truth can only be sought by interpreting the reality of inter-

est through just the one perspective has led to the dismissal of other perspectives as invalid rather than providing an enlarged viewpoint.

The topic of interpretation is used in this book as an umbrella for bringing together a wide range of concepts and developments that are the foundation of clear thinking about social phenomena. Clear thinking is needed since there are no universal laws in social science on which we can depend to displace the need for a critical faculty. There are no absolute truths in any of the sciences but there is still valid thinking and the tracking of truth.

It is becoming increasingly recognized that courses on methodology cannot just be confined to courses in multivariate statistics. Courses on statistics are an inadequate substitute for knowing something about philosophy of science and such topics as conceptual analysis. This book fills a gap in providing coverage of what needs to be known about methodologies beyond what is contained in statistical courses.

1 Interpretation and Methodology

THE PERVASIVENESS OF INTERPRETATION

Interpretation is basic to all our endeavors whether as scientists or as individuals going about our daily lives. Interpretation is distinguished from inference. Inference draws valid conclusions from given premises while interpretation is never beyond question. No final, absolutely true interpretation is ever proven: some conjecture is inevitable when facts are selected, connected and put into a plausible pattern. Although we recognize the role of interpretation and its importance, as when we say 'it all depends on your interpretation', we may fail to recognize how pervasive interpretation is, if we think it is something we only do when things are vague or ambiguous.

Every time we deliberate on events or on our experience, we are interpreting. Interpretation is fundamental since how things are interpreted determines what actions we consider. But interpretations can be far from arbitrary. The better interpretations will be consistent with the commonly agreed facts and account for the facts in a more coherent way: bringing the maximum number of facts into a meaningful relationship with the minimum of conjecture. Nonetheless, disagreements over interpretation will occur given that the 'facts' to be interpreted are selected, ordered and weighted in accordance with the perspective or viewpoint adopted. Few people have a completely open mind on an issue but a point of view that they prefer to have reinforced rather than challenged.

Understanding a person's perspective is a prerequisite to knowing how a person might be persuaded to another point of view. Michael Oakeshott saw this as a problem for historians when they impose on the past illicit patterns emanating from the perspective of their current concerns. And also for politicians imposing patterns on the future to fit a perspective reflected in some grand scheme for 'improving' the lot of mankind (Franco, 2004).[1] For Oakeshott, each of us has a governing perspective on the world whether theoretical or practical. This is true for all scientists where relevant reality is viewed through the perspective of the discipline's 'paradigm'.

Scientific paradigms act as conceptual lenses that guide research and the interpretation of findings. Although the different paradigms in social

science are often viewed as competitors (e.g., behaviorism versus cognitive psychology), more typically, they offer additional windows onto a problem or seek answers to entirely different questions.

WAYS OF KNOWING AND INTERPRETATION

Pickstone (2000) in his history of science, technology and medicine talks of three 'ways of knowing' in *science;* all involve interpretation:[2]

1. *Natural history* which consists of describing and classifying things as they come to be. Pickstone argues that the more scientific inquiry is concerned with complexity and/or singularity, the more scientists tend to adopt the natural history way of knowing. Zoologists and geneticists fit this category. The human genome sequence allows scientists to go back in history to infer the order, and even the timing, of each addition to our ancestral genome. At a more pedestrian level, a good deal of marketing research is concerned with the natural history way of knowing: doing surveys, describing trends or changes in values plus classifying and tabulating findings.
2. *Analysis* consists of seeking understanding by 'dissection', with things viewed as a mix of elements or a process with the elements 'flowing' through a system. Mathematical analysis belongs to this category which, while never creating knowledge out of nothing, brings out the implications of data that would otherwise be hidden.
3. *Experimentation* consists of tests with results that are relevant to the truth or falsity of some hypothesis or theory. But it is not just test results that are in need of interpretation, for it cannot just be assumed, without checking, that subjects will interpret their task exactly as intended. Experiment is viewed as *the* scientific method, though perfectly respectable sciences like geology and astronomy cannot conduct experiments. Pickstone quotes Rutherford's well-known quip that science is either physics or stamp collecting to illustrate the claim for the superiority of experimentation over analysis and natural history.

   These three ways of knowing do not typically address the same problems or answer the same questions. When just one way of knowing is adopted to tackle all the questions raised in a discipline, the result can be a deficiency in explanation. The three ways of knowing can complement each other. As Pickstone says, many scientific projects involve more than one kind of knowing. Thus experimentation, as a way of knowing, may need to be supplemented by background history and analysis. This is particularly so when we recall the problem in social science of generalizing from an experiment.

   Although the three methods embrace the traditional methods used to gain knowledge in science, there are advocates of additional ways

of knowing, namely, intuition and tradition, while in this chapter we add 'interpretation' itself as a sixth method .

4. *Intuition*. In some circles, intuition carries the notion of being a superior mode of attaining knowledge (Plato's 'eye of the soul') or alternatively as an unreflective inclination to believe something. Intuition is also viewed as the delivery system for ideas that reason is used to defend. It is generally accepted that intuition is derived from nonconscious knowledge. Goldberg (2000) views intuition as the condensation of prior experience and the result of condensed analytic processes.[3] The expert, using intuition, bypasses the logical steps precisely because intuition is a condensation of the extensive use of orderly logical steps in the past. The conventional view, from the study of adults with brain damage, is that the left side of the brain embraces language functions while the right side embraces visual-spatial reasoning with the two hemispheres communicating via the corpus callosum. But for Goldberg the left hemisphere is also the repository of compressed knowledge and pattern recognition capacities, allowing a person to deal with familiar situations, while the right hemisphere is the novelty hemisphere, the explorer of the unknown and the uncharted. He argues it is the right hemisphere that is dominant when we are young but the right hemisphere loses out to the left hemisphere as we age since it is the left side that accrues an expanding 'library' of efficient pattern-recognition devices. This suggests the title of his book: *The Wisdom Paradox: How the Mind Can Grow Stronger as Your Brain Grows Older.*
5. *Tradition*. Tradition in the interpretation of sacred texts like the Bible is for some the foundation test of truth. We are all familiar with Galileo's (1564–1642) confrontation with the Roman Catholic Church over the heliocentric theory that the earth moves in orbit around the sun and spins about its own axis and that, in 1633, the Inquisition coerced Galileo into recanting the theory. While it is true that the heliocentric theory was considered wrong and Galileo was charged with heresy, it might strike us as odd that Galileo would be so singled out, given that Galileo's claim was simply a more grounded upholding of Copernicus (1473–1543), whose thesis was published at the time of his death. And Copernicus himself had merely revived the essentially heliocentric view of Aristarchus (310–230 BCE). What really incensed the Church was Galileo's refusal to acknowledge the 'deeper truths' of Church *tradition* over claims for his *method* as the way to establish truth. As David Deutsch (1997) argues, 'the real dispute was not about whether the solar system had one layout rather than another: it was about Galileo's brilliant advocacy of a new and dangerous way of thinking about reality' (p. 74).[4] Galileo implicitly claimed that scientific reasoning took precedence over religious *tradition* and revelation: it was this notion, not the heliocentric theory

per se, that the authorities considered dangerous. Galileo was forbidden to hold and defend the heliocentric theory as *the explanation* of the appearance of the night sky. In denying the reliability of scientific knowledge, it was the explanatory part that the Church rejected. Galileo was not forbidden from using or writing about his theory or even defending it as a method of making predictions. The Church simply believed Church tradition and revelation were the source of true knowledge: scripture being but part, not the whole, of that living tradition. Indeed, it was claimed that reading the Bible, unaided, could not teach doctrine and that scripture was not useful as a source of direction on how to live in the world (Simpson, 2007).[5] The Church could point out that no final explanation can ever be proved absolutely as God could produce the observed effects in an infinite number of ways. In today's debate over evolution and creationism/intelligent design, we have a similar clash between one tradition of biblical interpretation and scientific claims.

Although we think of those seeking truth by way of tradition as belonging to a religion, in science there is the related notion of *conventionalism*, which regards the truth of some statement as determined not by empirical fact but by social usage or social agreement. For the conventionalist, once a law or method is found useful, its acceptance becomes a pragmatic matter of convention. Paul Samuelson (1965) is a prominent conventionalist in the field of economics.[6]

All five ways of knowing entail interpretation as interpretation is part of any inquiry even in the natural sciences. Take, as illustration, a book on science I have in front of me with the heading "Tests for Thinking Rats".[7] A white rat is shown leaping through one of three doors. Two of the three doors have identical horizontal stripes but these doors are latched. The third door has vertical stripes and is unlatched, allowing the rat to jump through the door. The rat is shown choosing the proper door, jumping through it to get a reward. The caption says this *proves* the rat has grasped the *concept* of 'oddness'. This is one interpretation but not a defensible one; the rat has at best simply learned to recognize the door it would be able to jump through. In fact, the grasping of concepts presupposes language use.

Significant innovations in the natural sciences have been resisted as a result of dubious interpretation. Thus Eddington, whose brilliant experiment tested and validated Einstein's general theory of relativity in 1919, employed arguments based on a suspect interpretation of general relativity theory to undermine (and ridicule) the theory of a young Indian academic, Subrahmanyan Chandrasekhar, a colleague at Cambridge. This resulted in the search for black holes being held back for 40 years when Chandrasekhar came back to work on his original discovery (Miller, 2005).[8] Fellow scientists had great difficulty in accepting Einstein's general theory since its perspective was so discontinuous with Newtonian physics. In his general

relativity theory, Einstein in 1916 was able to combine gravity with space, time, matter and energy; not bad for someone whom his calculus teacher, Hermann Minkowski, called a lazy dog! Einstein's general theory changed the meaning, conceptualization, and interpretation of gravity from a force to being viewed as the outcome of the curved geometry of space and time.

6. *Interpretation itself as a way of knowing.* Interpretation itself can be regarded as a way of knowing, making it the sixth way of knowing. Interpretation may be *the* methodology of interest, not interpretation as something just ongoing to all methods of inquiry. As such, interpretation becomes a methodology or way of knowing in its own right. In contrast to deductive inference, interpretation is never guaranteed to produce valid conclusions. This does not mean that logic is not involved in interpretation. Take the following quote from the first paragraph of an Op-Ed piece I have just been reading, written by columnist David Brooks (2005) in the *New York Times*:

   Most serious people who spend time in Iraq report that reality there is contradictory and kaleidoscopic. The Sunnis are participating in the democratic process; the Sunnis are supporting the insurgents. The Shiites are building a national government; the Shiites are creating death squads. The Americans are securing neighborhoods; the Americans are inciting violence. (Brooks, 2005)[9]

   If we are to interpret this intelligently, we take account of the logic. The first sentence is true only if we accept the author's view (not given) of what constitutes 'serious people'. And contrary to Brooks, his statements are not in contradiction: *some* Sunnis may participate in the democratic process and *some* may support the insurgents, while *some* Shiites may be building a national government while *some* may create death squads, and *some* Americans may secure neighborhoods while at the same time be inciting violence. (In formal logic, the contrasting propositions are not contraries but subcontraries.)

INTERPRETING EVERY METHODOLOGY AS A TECHNOLOGY

Each methodology used to obtain knowledge can be regarded as a 'technology'. Technology is concerned with building systems that can succeed or fail, governed by rules that are not true or false but effective or ineffective. This view of technology as consisting of rules or operational principles for achieving successful practical performances is that of Michael Polanyi (1978).[10] Toulmin (1977) similarly defines technology as a population of techniques, recipes, processes and procedures.[11] Technology includes systems like telecommunications, computers, buildings, cars, trains, airplanes—but

also all investigative and planning systems. In contrast to technology, the natural sciences like physics and chemistry are concerned with developing *explanatory* theory that aims at tracking truth in respect to things such as atoms, heat, light, sound, electricity, magnets, forces and motion.

Polanyi points out that, though we can export the objective fruits of science (like scientific explanations) throughout the world, we cannot export the *skills* of doing good research since these skills require practice in the application of loosely textured rules, usually learned under the guidance of an expert. In the recruitment of researchers, the focus is typically on where someone was trained, by whom and for how long. Every methodology is a skill and this implies that research methodology is not mastered by reading books; books simply get us started and help us avoid errors.

Interpretive methods are a technology as they are concerned with developing systems of interpretation that can be effective or ineffective. There is no single, unique method of interpreting. On the other hand, there is no unique scientific method for the natural sciences. As Putnam (1981) says, no philosopher of science today accepts that there is just one scientific method.[12] Susan Haack (2003) agrees, arguing there is no magic set of methods we 'baptize as scientific method', distinct from the intellectual tools we employ in our daily lives.[13] As always, the method employed is determined by the kind of understanding that is sought and/or the questions being addressed.

Technology is governed by rules that are not true or false but effective or ineffective. Marketing management, though, can never be a mechanical application of rules whether the rules are called rules, principles, heuristics, maxims or whatever. They have to be interpreted in the light of situational factors to avoid putting in standard solutions when standard conditions do not exist. The trouble with all rules or principles is that, when very general, they seem to have little applicability to the individual case. On the other hand, the more specific the rule, the more it becomes like a recipe, with no room left for creativity.

Herbert Simon (1957) puts management principles into the category of proverbs, essentially useless in that for almost every principle one can find an equally plausible and acceptable contradictory principle ('too many cooks spoil the broth versus many hands make light work').[14] To allow generality, principles assume sameness across situations which can be denied. But Simon's is a wrong perspective on the nature of principles. Principles (like proverbs) fall under *objective relativism*, which claims that, while the valid application of a principle is *relative* to the situation, a principle can still be *objectively* right or *objectively* wrong as can be the case with contradictory proverbs (Putnam, 1981).[15] In other words, any contradiction is reconciled by recognizing that, while the appropriate application is *relative* to circumstances, the application is *objective* and not a subjective matter in that we have no problem in saying which proverb applies in what situation.

The appropriateness of a principle is tied to context, that is, whether the principle is applicable or not depends on the context since context suggests whether it can be validly applied. Principles of marketing or management emanate from the collective experience of managers. Interpreting a principle's appropriateness is less a matter of paying rigid attention to the rule so much as paying attention to the situation or circumstances to which it is to be applied. Principles, like all rules, are guidelines not formulas since there is often uncertainty as to the precise circumstances to which they can be applied. Sometimes we need explanatory theory to justify their appropriateness.

Some academics argue that research in marketing should focus on developing principles, advocating effects application research, problem orientation research etc., without being concerned with explanatory theory. But, as Robert Merton (1968) points out, such naive empiricism is likely to lead to the chaotic accumulation of miscellaneous empirical generalizations—as it has in marketing.[16] This is because empirical research is blind without some guiding theory just as theory without empirical research can be empty.[17]

INTERPRETATION, CONTEXT AND INDEXICALITY

Interpretations are guided by perspective or purpose. An advertisement for *The Times* of London points to this. It shows a banana on a plate with six plates that correspond to six different perspectives: (i) banana signaling fruit, (ii) banana signaling vitamins, (iii) banana symbolizing slapstick comedy, (iv) banana as sexual innuendo, (v) banana as symbolizing trade wars, (vi) the banana as a racist weapon. The ad caption simply reads: "if you take things only at face value, you miss what is important".

The *indexicality* of a word, phrase or sentence is that part of its meaning that is specific to the context in which it occurs. Language interpretation is always tied to context. Thus 'like' can be used to mean 'fond of', 'enjoy', 'feel' and so on depending on the context or the word 'novel' can be interpreted as a work of fiction or as something original. Meaning is indexed to context. The indexicality of a word is unknowable without knowledge of context. It is this indexicality that rules out replicating the *exact* findings of any study as contexts are never exactly the same. An amusing example of how the meaning of a word is tied to context is provided by someone's e-mail to his local authority protesting the erection of some building. It never reached the official because all the computers had an anti-spammer which rejected any e-mail with offensive language!

Context can change expected behavior, ruling out law-like generalizations. Contexts change interpretations and the weighting of the various considerations, just as the context in which a wine will be consumed changes the weights attached to price, type of wine and brand bought. We predict within a context. Thus people do all sorts of things to draw

attention to themselves like acting silly, dressing oddly and so on but not in all situations (like a job interview) since they are very much aware of what contexts are appropriate for what behavior. Zimbardo (2007) demonstrates the power of context or situations in warping people's judgment and channeling behavior in unexpected ways.[18] In particular Zimbardo argues that situational factors (peer pressure, superior demands) are far more likely to explain abusive and cruel behavior to others (e.g., the Abu Ghraib prison case) than dispositional states like attitudes.

But what exactly is context? Scharfstein (1989) includes under context temporal, geographical, cultural, cognitive, emotion . . . anything at all in the relevant environment . . . and argues persuasively that no reasoning or any action can be fully understood outside of its own context.[19] This definition of context includes the conditions operating at the time. Politicians promise to undertake certain policies once in office but fail to keep their promises, commonly because, on recognizing the restraining conditions confronting them, they are apt to re-think the wisdom of what they promised.

Scharfstein argues that, if the grasp of context is purely *cognitive*, this limits understanding. Thus understanding the action of others is always held back if we have never shared (experienced) the relevant context. Perhaps this is why the senior citizen market is neglected as those actively in marketing are not senior citizens. People commonly say "I know how you feel" to those who have suffered but this is just an empty phrase unless they have experienced the same tragedy in a similar context. This suggests that *personal experience* of the various contexts in which a product is bought, consumed or disposed of is needed to fully understand the customer. Hence it helps a great deal for a product manager to belong to the market segment he or she caters to.

In endorsing the claim that no one can distinguish the meaning of a word divorced from the context, Scharfstein is also claiming that to understand human beings, there is a need to understand the various contexts in which human behavior is manifested. However, the degree of contextual detail we amass will depend on our aims, both intellectual *and* emotional. For many purposes, we can think of context as embracing the medium of communication, time and location. As for the medium of communication, interpretations differ between words as *spoken* and the same words as *written*: "There is no god but God, and Muhammad is the apostle of God". Take the problem, too, of how meaning can differ through time. The description of Ivan IV of Russia as 'Ivan the Terrible' has come to signify a cruel despot but this was not what historically 'Ivan the Terrible' implied. In the early 17th century, when the label was first used, the meaning connoted 'awe-inspiring' or formidable (Madariaga, 2005).[20]

Interpretation takes context as background information in making things intelligible. We stress the word 'intelligible' rather than rational (as per the canons of rationality). An error perhaps made with Saddam

Hussein was to assume he would act in what would be considered a rational way by American and UK politicians. His conduct was, however, intelligible in the context of Iraqi culture and the contextual pressures on him to avoid losing face.

INTERPRETATION, SELF-INTEREST AND VALUES

Self-interest and the values reflecting our concerns influence interpretation. Livingstone (2003) illustrates this in discussing the reception of Darwin's *Origin of the Species* in New Zealand and South Carolina.[21] In New Zealand, the book had an enthusiastic reception as the book seemed to justify the colonists' attempt to extirpate the native Maoris, while, in South Carolina, the book had a hostile reception as it suggested the close kinship between the local plantation owners and their soon-to-be-freed slaves.

Methodological Constraints on Interpretation: Methodological Monism, Methodological Exclusivism, Methodological Pluralism and Positivism

Many deny there are any serious problems of interpretation in doing *scientific* research. Those who claim this tend to endorse *methodological monism:* the notion that any discipline that aspires to be a science must follow the methodology of the natural sciences where interpretation does not loom large. Methodological monism is a core thesis of *positivism* that all scientific inquiry must, to be called scientific, follow the methods of the natural sciences.

As most disciplines promote themselves as 'sciences', there is inevitably debate over what is science. Dennett (2006) rejects as scientific evidence the mass of data contained in historical narratives on the ground that such cannot be reproduced under controlled conditions.[22] This would rule out 'natural' experiments and a good deal of what we call sciences. It reminds us how often definitions are adopted to fit a viewpoint, in this case to dismiss the visions of saints and mystics as worthless since they are not repeatable. In any case, all ways of understanding do not fall under the rubric of science, for example, art, music and literature. But even if we follow the methods of the natural sciences, interpretation of data and the results of scientific inquiry can still be a problem.

The most extreme version of methodological monism is the twentieth-century brand of positivism known as 'logical positivism', a product of the so-called 'Vienna Circle' meetings in the 1930s. Its tenets were:

Empiricism: positivists confine 'reality' to that revealed by experience (mainly sensory) claiming that what we know we know only because the empirical evidence so far happens to point that way. Not appreciated was the fact that this experience needed to be interpreted and interpretation is tied

to the scientist's perspective or scientific paradigm. Empiricism contrasts with *rationalism*, which claims that the world is knowable only through reason, since sense data need to be connected (interpreted) in the light of reasons. The rationalists deduce facts about the world through the exercise of reason while the empiricists argue that the only way to an understanding of the world is by observation and experiment. Mathematics is the ideal for all rationalists, starting with Descartes, Spinoza and Leibniz.

Handy and Harwood, who are supporters of a strong positivist tradition, argue that rationalism is still the dominant orientation among formal model builders, giving rise to models like "game theory" and "utility theory" that confuse warranted assertions about the particular model with warranted assertions about some aspect of human behavior.[23] They take model builders to task for not investigating the presumed connections between the model and observed behavior with any degree of thoroughness: typically it is the *internal* aspects of the model that are examined rather than matching the model to actual behavior. This is still as true today as it was at the time Handy and Harwood wrote it.

Handy and Harwood point out that *internal tests* are seldom adequate since assumptions can often seem unchallengeable, reasoning absolutely sound, and conclusions inescapable, when in instance after instance, the assumptions are later shown to be unfounded, the facts proved wrong, and errors in reasoning detected. They take econometricians to task for often "obtaining plausible numbers to provide ceremonial adequacy for a theory." A little cleverness "will get you almost any result you want" and that is why "few econometricians have ever been forced by the facts to abandon any firmly held belief". These criticisms are not easily dismissed.

Empiricism can equally be contested on the ground that even the natural sciences must make assumptions, like assuming uniformity in nature that cannot be empirically verified. But what this debate is about is where the relative dominance lies since both inevitably play a part in scientific inquiry. Descartes undertook the most original experiments in optics though believing that the way to understand Reality was through mathematics. In any case, interpretation is at work whatever approach is used though interpretation is more fundamental to empiricism.

The logical positivists put great emphasis on 'observables' though the interest today lies in the probability distributions associated with the observations, not in a single observation. This is what the statistical revolution in the 20th century has been about (Salsburg, 2001).[24] The fact is that empirical evidence for most decisions is just not there. David Eddy, a pioneer in the health-care quality field and in the application of statistical modeling to medicine, claims that only about 15% of what doctors do is backed by hard evidence; others put it around 20% to 25% (Carey, 2006).[25] This, of course, could be a reminder of the need for more empirical support in justifying decisions, since the quality of decisions depends vitally on the quality of the information behind the decision.

- *Descriptive laws*: science to the logical positivist is the search for *descriptive laws,* e.g., 'when metals are heated they expand.' Theory was viewed as systematizing *descriptive* laws and any theoretical entities not completely definable in observational terms were rejected. Abstract concepts like 'attitude', 'motive', 'intention' had to be given operational definitions or operational measures so as to have a concrete, observational reference. But observations are not unproblematic since observations are interpreted in the light of some conceptual schemata, perspective or scientific paradigm. The Vienna Circle members saw mathematics as essential to describing physical laws and turned to Bertrand Russell's program to reduce all mathematical concepts and truths to pure *logic*. (The program never succeeded, though it is now agreed that 99.9% of mathematics follows from a small part of the axiomatic theory of sets.)
- *Nominalism:* logical positivists recognize only individual particulars, denying that general abstract concepts like 'society' or 'market', 'beauty', 'goodness' offer any additional insight onto the world. Margaret Thatcher, when the British prime minister, seems to have been a nominalist in denying there was any such thing as 'society'! For the logical positivists, science starts with direct observation of *single* facts as if the facts were out there like apples on a tree waiting to be picked.
- *Teleological explanations*, that is, explanations in terms of functions, goals, and purposes and so on were considered invalid unless transformed into non-teleological form. In other words, science was to avoid interpreting things in nature or social life in terms of the function performed (as when we refer to someone fulfilling the role of buyer or researcher) or in terms of purpose (as when we say the consumer's goal is to choose the cheapest coffee from among the brands available). Such is not acceptable unless translated into a scientific (law-like) format. Teleological explanations in practice have defied such translation.
- *Meaningful statements are either synthetic or analytic*. A *synthetic* statement is an empirical one (all buyers are risk-averse), with observable facts relevant to its truth. On the other hand, an *analytic* statement (a purchasing agent is someone who buys on behalf of an organization) is true as a matter of definition or just follows as a matter of deduction from the meaning of the words used in the statement (e.g., a bachelor is unmarried). Any denial of an analytic statement involves self-contradiction. The Austrian school of economics, associated with such luminaries as Von Mises and Hayek, claims to be based on analytic propositions or self-evident axioms about human behavior. Synthetic statements are to be tested by verifying them. This was enshrined in the logical positivist's *verifiability principle*. Any assertion not conforming to the verifiability principle was either

> analytic (not in need of any confirmation, being a conceptual or definitional truth) or 'nonsensical' (just emotive as in ethics). All scientific propositions state something is or is not so. Propositions about ethics, religion, and aesthetics are in consequence cast aside as unscientific. Whether these topics are unscientific or not, they are full of meaning (significance) for the human race and it seems an absurdity to attach to them words like 'nonsensical' (even if just non-sensical).

In logical positivism, we are being asked as a first step to *interpret* whether a statement is analytic, synthetic or nonsensical as these distinctions influence all else. The logical positivists aimed to dispense with metaphysics, but an unintended consequence has been to undermine the study of philosophy since most of it fell into the category of the nonsensical. On the other hand, there is a reminder here how common it is to find some proposition being paraded as empirical (synthetic) when it is analytic, simply a conceptual truth like saying the stronger the desire for some product, the more the motivation to obtain it. And it is equally common to find views expressed as 'obviously true' (analytic) when evidence is needed in support. In life generally, it is impossible to have empirical support for everything we claim. If what someone says or writes 'makes sense', forms a coherent argument, then others are apt just to go along and demand evidence only when their concerns oblige them to do so. A.J. Ayer (1936) recommended a weaker version of the verifiability principle, namely, that a sentence is factually significant to someone if, and only if, that person knows what observations would lead him or her, under certain conditions, to accept it as being true or reject it as being false.[26] Ayer (1973) was to claim that his weaker principle made sense as it avoids condemning as nonsense scientific laws not reducible to descriptive experience.[27]

The distinction between analytic and synthetic statements is still commonly (and usefully) made. We all need to be aware of what statements are true as a matter of logic and what statements require empirical support. Quine (1951), though, points out that analytic statements are not immune to empirical revision as all beliefs are answerable to experience.[28] Kripke (2004) adds the concept of *necessary a posteriori* truths, quoting examples that were neither simply synthetic nor analytic.[29] (Propositions are called 'a priori' or, alternatively, 'a posteriori 'depending on how they relate to experience: a priori if they come before experience and a posteriori if they put across experience.)

LOGICAL EMPIRICISM AND NATURALISM

Carnap, a prominent member of the Vienna Circle, substituted the term *logical empiricism* for logical positivism. Logical empiricism is a much more sophisticated version of logical positivism with the goal of science

being *explanation* (not mere description) but continuing to insist that scientific hypotheses be testable and potentially falsifiable. The particular brand of logical empiricism that presently seems to hold most sway is *naturalism*. For the naturalist, the only scientific explanation is the causal explanation. Naturalism in the philosophy of science has become the current orthodoxy though there are many critics (see Rea, 2003).[30]

Naturalism endorses the methods of the natural sciences in interpreting reality, seeing the natural sciences as the authority on what there is in the world and what the world is like. However, while naturalism accepts methodological monism it rejects the notion that science must be built on direct sensory experience, never going beyond what is observable. It acknowledges that every scientific term cannot always be defined operationally, that is, captured or measured in observational language. This is in line with modern physics, which no longer insists on operational definitions for all concepts employed in a theory, since a concept may be useful even if never observed, like the electron. What naturalism, however, does insist on is that scientific explanations be *causal,* acknowledging there are many kinds of causal explanations.

METHODOLOGICAL EXCLUSIVISM

A parallel claim to that of methodological monism (the belief that there is only one set of scientific methods and these are the methods used in the natural sciences) is that the study of human beings requires a distinct methodology of its own, borrowing nothing from the methods of the natural sciences. Both methodological monism and the counterclaim for distinct methods for studying human action, Roth categorizes as *methodological exclusivism*.[31] Methodological exclusivism is not just confined to positivist writers on social science like Rudner[32] who are methodological monists but those like Winch who claim the social sciences require a distinct methodology of their own.[33] Winch (1958) argues that, if the objects of study are essentially sensory data, they can typically be studied via the methods of the natural sciences. But if the object of study is human beings, acting in a way that *expresses* a way of life, such a study comes under the heading of the humanities and calls for methods distinct from the natural sciences. There is a danger today of replacing methodological monism with the claim that the social (human) sciences require a unique methodology of their own.

METHODOLOGICAL PLURALISM

A complete denial of methodological monism is *methodological pluralism* that rejects the claim that there is any one set of methods that provides a privileged access to reality and truth. Methodological pluralism implies

we can be an anti-positivist when rejecting methodological monism but still access, when appropriate, the methods of the natural sciences to study human behavior.

Methodological pluralism rejects any claim that there is just one set of methods that gives privileged access to studying and explaining human behavior. Whatever the controversy over Feyerabend's (1977) book *Against Method,* with its anti-objectivism thesis, it has wide appeal in arguing that there is no one way to conduct successful science and science cannot be restricted to following one set of rules, regardless of subject matter; there are just 'different methods for different topics'.[34] Interpretation alone, with its focus on meanings and intentions, will not answer all questions asked. As Fay (1996) says, social scientists ask questions not only about the meanings (significance) of various acts but also want to know about the *causal* factors which give rise to and support the continuing existence of certain meanings. He or she will want to identify the causes of actions.

'Critical pluralism' is methodological pluralism with the recognition of the need to subject all theories, models or hypotheses to critical scrutiny. In philosophy, there has been an undermining of faith in universal laws, absolute proof and disproof and related notions such as empirical verification, the possibility of a neutral observation language, uninterpreted facts, value-free judgments and the correspondence theory of truth (truth as corresponding to the objective facts in the world outside) as representing rationality at its best. Even physicists are beginning to entertain the notion that the laws of nature might not be fundamental in that they might not apply to other universes.

The attraction of methodological monism (as opposed to methodological pluralism) is that, in insisting on the methods used in the natural sciences, it dictates what type of evidence is acceptable as 'hard' evidence. In a world where absolute proof is unobtainable, this seems important. Not surprisingly, many worry about the relativist slant suggested by an 'anything goes' position. Even if it is *not exactly* a case of 'anything goes', the assertion that any justification procedure is simply whatever is accepted by the scientific community for that discipline (as suggested by Kuhn[35]) seems to make the scientific review process sound like a 'popularity' contest. Hence some writers argue there must be universal, objective standards or rules for the conduct of science and scientific thinking, just as there are rules for valid deductive arguments. In a deductive argument we infer from premises to conclusion as in the syllogism so beloved in logic texts: All men are fallible, Socrates is a man, and therefore Socrates is fallible. The premises logically entail the conclusion, making the argument a valid one. But only if the premises are true is the conclusion also true. But an alternative position is that there can be premature closure on methods with the danger of rationally defensible methods being excluded.

Although 'anything goes' was the slogan Feyerabend (1977) used to sum up his position on choosing a methodology, Feyerabend was not (as

commonly claimed) saying rationality should be abandoned but insisting that methods be evaluated by results and not by their adherence to some set of dogmatic guidelines.[36] He was not recommending that scientists or researchers proceed without rules but that they should expand the inventory of rules, with the recognition that there are standards operating 'locally', tied to a specific research process: his intention was not to reject rationality but to recognize it takes many forms

Neither the methods used in the natural sciences nor interpretive approaches are certain to yield true knowledge. Quine (1970), the philosopher, talks of the *underdetermination of theories* in that it is *possible* to formulate scientific theories that are empirically equivalent but logically incompatible.[37] But what is logically possible need not be probable. In any case, underdetermination is not universal. Kitcher (2001) illustrates this by pointing out that we still seem unable to think of a rival hypothesis to that which states that the typical structure of the DNA is a double helix with sugar-phosphate backbones and bases jutting inwards.[38]

For Quine, theories in the natural sciences are not a mirror of reality as there is 'no unvarnished news of the world'. Quine sees knowledge as a combination of sensory evidence and subjective creation (construction) and denies we can distinguish these two elements in any analysis of knowledge. Quine's (1970) *'indeterminacy of translation thesis'* maintains that there are no universal meanings or logical standards through which we can arrive at some uniquely correct interpretation of the utterances of others. He stresses his 'indeterminacy of translation' applies to all psychological theories that rely on the interpretation of verbal behavior as data (e.g., answers to a questionnaire).[39] This has relevance to marketing research. He shows that researchers can never be absolutely sure their interpretations reflect the structure and meaning of the thought which the speaker intended to communicate. But then no scientists can be absolutely sure their theories reflect absolute truth.

There are no impartial observers of behavior; we deceive ourselves if we think there are. We are not even sure of the truth conditions for employing the concept of impartiality. All interpretations possess a quality shaped by past experiences, interests, and what things mean to us: we are not just cameras selecting and recording various scenes but infuse the scenes with something of ourselves. It is not just the Eiffel Tower that registers but *my* Eiffel Tower colored by my own past and its meanings.

The best defense of methodological pluralism or critical pluralism rests on the observation that different methods address different questions and that different methodologies go with different explanatory systems. If we insist on a methodology that is quantitative, this limits the questions we are able to ask. There is the inherent danger that the questions addressed will be those that fit some favored technique; the researcher acting like the little boy with a hammer who finds everything needs pounding (or it may be that, when all you have is a hammer, everything looks like a nail). Different

explanatory systems or paradigms represent different conceptual lenses through which to view the world and may seek to answer different questions. What caused A to do B? What function was performed by A doing B? What meaning does doing B have for A? If we are interested in questions about inner mental states, we do not go to radical behaviorism for answers. If we are interested in cultural, social and emotional influences on behavior, we are unlikely to look to cognitive psychology and so on.

Krausz (1993) illustrates how the particular explanatory system adopted determines interests addressed. Thus he argues that a Marxist interpretation of Van Gogh's *Potato Eaters* would be superior to a psychological interpretation in terms of its power to reveal the relations of economic institutions, but a psychological interpretation would be superior to a Marxist interpretation in its power to reveal the character of its leading figures.[40]

INTERPRETATION IN ACCORDANCE WITH POPPER'S FALSIFIABILITY PRINCIPLE

Popper (1959) substituted *falsifiability* for verifiability as the necessary condition for any hypothesis to be interpreted as potentially scientific on the ground that scientific theories or hypotheses can be falsified but never completely proven.[41] This claim by Popper is still quoted as orthodoxy by many in social science, though Duhem, a French physicist, early on in the 20th century demonstrated that the falsifiability of a scientific law in an absolute sense is also not demonstrable.[42] In any case, social science theories do not commonly come along with obvious ways of testing them. Determining how to test a theory may require considerable ingenuity, more than that needed to think of the theory itself.

INTERPRETATION IN ACCORDANCE WITH THE CORRESPONDENCE THEORY OF TRUTH

The verifiability principle of the logical positivists went hand in hand with the *correspondence theory of truth*. This asserts that something is true or can be interpreted as true, if it corresponds with the 'facts': the idea of the world consisting of unambiguous facts to be objectively observed and generalized about was a central tenet of positivism. However, the correspondence theory of truth is less operational than it seems, once we recognize that the notion of truth is *semantic* in that it depends, first and foremost, on the interpretation of the meaning of the expression whose truth is being determined. (Hence that favorite retort: "It all depends on what you mean by . . ."). In any case, if we were to fully accept all the tenets of logical positivism today, there would be little in *social* science that would pass the logical positivists' criteria for being a science.

Anyone who doubts this might consult the (already cited) Handy and Harwood's (1973) review of the social sciences from the point of view of logical positivism.[43] There is not much they acknowledge as science among the so-called social sciences. However, when we speak of positivists today we are not talking about those who subscribe to the doctrines of logical positivism but to those who focus on empirical observation, causal explanation, experimentation, measurement and testing. There is the assumption we can avoid interpretive bias stemming from preconceptions, self-interests and sympathies. But bias is a problem for all 'impartial' inquiries. Kagan (2006), a Harvard psychologist, says it took him years to shake off the prejudices against biology acquired from behaviorism and psychoanalytic theory.[44] As he says:

> The ideas indoctrinated during graduate training can limit the conceptions the mature investigator entertains. I used to begin the first meeting of my graduate seminar by telling the dozen or so students that much of what I had been taught at Yale turned out to be mistaken, so they remained skeptical of everything I said over the next four months. (Kagan, 2006, p. 112)

The indoctrination to which Kagan refers mainly applies to his training in behaviorism and psychoanalytic theory. His verdict seems a little harsh. Every paradigm like behaviorism in the social sciences is a way of seeing but also a way of not-seeing; answering different questions or offering different windows onto a problem, with some windows clearer than others, depending on the questions being addressed.

In life generally, we have perspectives that lead to bias. Judson (2005), challenging alleged differences in the sexes, points out that when American symphony orchestras introduced blind auditions in the 1970s, where the musicians being evaluated played behind a screen so gender was invisible, the number of women offered jobs in professional orchestras increased.[45] Posner (2004), in discussing the International Court of Justice in The Hague, maintains the judges, 90% of the time, vote in favor of their countries if they are parties to the litigation; vote for states that are more like their home states; favor wealthy states if their home states are wealthy; favor poor states if their home states are poor, while judges from democracies appear to favor democracies and judges from authoritarian states appear to favor authoritarian states.[46] We would find analogous (if less apparent) biases among judges elsewhere, which is why there are appeal courts. In the news media political bias is pervasive. What *The Economist* (May 5, 2007, p. 11) says about the motto of the pro-Republican Fox News ('We report, You decide') is "about as convincing as an anchorman's suntan." Regular viewers of Fox News claim it is the least biased of the news channels. A news report may not obviously lie but simply ignore contextual factors that would induce a different interpretation.

In academia there is a good deal of groupthink, with faculties often selected on the basis of likeness in perspective. Thus the mathematical model builders may determine such skills to be the basic criteria for selection. The result is a sort of intellectual incest prone to the PLU syndrome; only 'People Like Us' should be considered. One former president of Yale doubted whether the truly innovative could overcome the collective bias to get tenure. I hope this is not true but perhaps it needed to be said to remind us of how perspectives grounded in our commitments guide our judgments.

Can We Interpret Statements as Simply True or False? Austin's Performatives and the Analytic/Synthetic Distinction

John L. Austin, a linguistic philosopher, pointed out that there are classes of utterances that are perfectly meaningful but cannot be said to be either empirically true or simply analytic. To say, for example, "I promise I will buy you that bicycle tomorrow" is neither true nor false, neither describing nor evaluating but simply doing or acting. Only humans can make promises and assume sufficient commitment to retain that promise in memory. This does not rule out interpretation and no statement is immune from misinterpretation. Austin called such utterances 'performatives' (though they never quite lived up to his claim about them *never* being true or false).

Austin's (1962) book *How to Do Things with Words* has become a major source for *speech act theory*, with its distinctions between locutionary, illocutionary and perlocutionary 'forces' in speech acts or utterances.[47] These distinctions are useful in the interpretation of speech acts.

All three speech acts are present in a speech act. Locutionary utterances say something with an inherent, *public* meaning (that is, meaning apparent to users of the language, e.g., "I will be there'). The expression of any proper sentence is a locutionary utterance. Locutionary speech acts contain illocutionary acts since what one does in saying something like 'I will be there' is carry out a speech act that declares *intent*. Illocutionary acts have *intentional* meaning with the force of affirming, promising , denying, vowing, diagnosing, suggesting, thanking, appointing etc., and entail the *execution* of some recognized type of action of intent such as "I do" at a wedding ceremony. In other words, they involve *interpreting* intention, purpose, reason or motive. Thus choosing a product and walking toward the checkout register signifies intent to buy.

Correctly interpreting an act as illocutionary implies the total context points to intention without the need to ask about desires and beliefs. Thus the interpretation of intentions is a matter of knowing the context in which the speech act occurred. *Context* is all important. It is common in politics (and elsewhere) to take an opponent's remarks out of context, which can be damning when subtracted from context. The combination of the locutionary and the illocutionary speech acts gives rise to *perlocutionary* utterances. The perlocutionary act is the act you *succeed* in performing by means of

the two preceding speech acts. *Consequential meaning* is involved because the utterance has consequences. Thus "I will be there" has the consequence of getting the hearer to take this into account.

Austin's distinctions stress the importance of *performative* utterances in interpretation and draw attention to the fact that interpreting for truth and falsity characterize but a relatively small set of utterances. The larger set is made up of performative utterances like promising, consenting, vetoing, approving etc., where the utterance itself is the performance of the language act and not a report of that performance.

Treating utterances as intentional acts, we can ask "How many kinds of illocutionary acts are there?" Austin posited five basic types of illocutionary act which provide categories for interpreting speech of any sort:

(i) *Assertions* or intention to tell people how things are, as happens when salespeople talk about their product.
(ii) *Directives* or intention to get people to do things, as when salespeople try to close the sale.
(iii) *Commissives* or intention to commit ourselves to do things, as occurs with promises to buy.
(iv) *Expressives* or intention to express our feelings and attitudes, as when we comment on the service in a restaurant.
(v) *Declarations* or intention to seek to bring about changes in the world through our utterances so things are changed in line with the content of the utterance, as occurs in registering a complaint about the service.

Austin's work has instigated two forms of analysis, namely, *conversation analysis* and *discourse analysis*.

- *Conversation analysis* (CA) links not only to Austin but to Garfinkel's ethnomethodology[48] in that it aims to describe how people produce orderly social interaction or how conversations are coordinated as a basis for interpreting what is going on.
- *Discourse analysis* (DA) focuses on the analysis of recorded talk, going beyond ordinary conversation since discourses can take place in institutional settings.

Austin was fond of noting features of language that surprise us. In one lecture at Columbia University he pointed out that, while a double negative is equivalent to a positive, never does a double positive amount to a negative. From the audience the familiar voice of philosopher Sidney Morgenbesser dismissively called out, "Yeah, yeah" (Ryerson, 2004).[49] This is an exemplary illustration of how something that is spoken, as opposed to written, can alter an interpretation. 'Yeah, yeah' could in fact have been said in a way that signified agreement but instead was said in a highly skeptical manner leading us to acknowledge that a double positive can amount to a negative.

INTERPRETATION UNDER NOMOTHETIC AND IDEOGRAPHIC PERSPECTIVES

If we could explain human behavior as falling under some law, we could simply infer the behavior from the law. No conjecture as with interpretation as it falls under a *nomothetic* (law-like) explanation. A nomothetic explanation invokes universal laws for explaining repeatable events and processes. Although we talk of laws in the natural sciences as being unconditionally universal, in many branches of the natural sciences, laws are stated as being universally valid *only* under certain 'ideal' conditions, for pure cases of the phenomena being discussed. The discrepancies, however, between what the scientific law asserts and what observation discloses can be accounted for by well-authenticated discrepancies between the ideal conditions and the actual conditions being observed. This is where the natural sciences score over the social sciences. Even in economics, the discrepancy between the assumed ideal conditions for an economic law to apply and the actual conditions in the market are usually so huge and the postulations needed to fill the gap are so tricky and complicated that the strategy used by the natural sciences is infeasible.

Ideographic disciplines seek to understand the unique event, as history sometimes claims it does. Ideographic explanation is associated with *process tracing or genetic* explanation which traces the set of causal factors giving rise to the situation. It is an explanation that links to the historian but it can be used in tracing the historical (causal) antecedents in reaching any present situation (see Chapter 6).

If we think consumers for some purposes are tokens of each other who operate in strictly defined contexts, we may adopt a nomothetic approach and seek universal law-like findings. If we believe each of our subjects is essentially different, we adopt a more ideographic approach. The adoption of a nomothetic approach does not necessarily imply we actually subscribe to the notion that people are exact tokens of each other but simply that the approach may provide the best working hypothesis for the research at hand. Consumers are not tokens of each other in wants or behavior. Even in eating the same food two people experience profoundly different sensations.

There are no universal laws that apply to purposive behavior. If there are no universal laws on buying behavior or elsewhere in social science, it is presumptuous to give advice as if there were. Specific advice depends not just on knowing social science findings but on knowing contexts. This is where experience comes in: the manager's knowledge of contexts is all-important if 'expert' advice is to have relevance. What every manager has to avoid is being manipulated by pseudo profundity where the advisor starts by slowly asserting some truism ('Quality decisions presuppose quality information') and moves on to claims couched in jargon, suggesting both sets of statements can be equally accepted as true.

INTERPRETATION UNDER METHODOLOGICAL INDIVIDUALISM AND METHODOLOGICAL HOLISM

The question arises as to whether in interpreting or indeed explaining human behavior in markets, families, businesses, social classes, or decision-making units requires anything more than aggregating the individual interpretations or explanations of action. This question is answered differently by "methodological individualists" and "methodological holists" who represent two contrasting perspectives in social science.

Methodological holism focuses on social wholes, not individuals, as the building units of social science. Emile Durkheim (1858–1917), the French sociologist, saw holism as support for the distinctness of sociology as a social science and claimed that, while social forces work through individuals, social facts influence and constrain individual behavior. Methodological individualism, in contrast, focuses on the individual agent.

Methodological holism has attractions for social scientists in that their interest generally lies in the behavior of groups, not the differences among members, while causes in social science apply more to groups than individuals. On the other hand, people are not tokens of each other, nor do group norms enforce complete conformity.

If methodological individualists discount the scientific usefulness of social wholes, methodological holists discount the influence of individuals when considering *social* behavior. Holists regard social groups 'as if' independent of their members as individuals. It asserts that theories of social behavior are not reducible to the behavior of individuals and those collective entities like "social group" are not specifiable in terms of individual behavior. Methodological holism postulates that social wholes, like firms, competitors, and society, have functions, can cause events to happen and can cause individual wants, beliefs and actions to change. It does not regard social phenomena as reducible to individual psychology. Holists reject such "reductionism" entirely.

Schumpeter and Hayek, the economists, and Popper, the philosopher, claim (as did John Stuart Mill in the 19th century) that social phenomena are wholly explainable in terms of facts about individuals. Schumpeter referred to this as methodological individualism. Watkins neatly puts forward the claims of methodological individualism that:[50]

- The ultimate constituents of the social world are individuals who act more or less appropriately in the light of their wants and beliefs given the situation.
- Every event or institution is the result of a particular configuration of individuals, their dispositions, situations, beliefs, physical resources and environment. All interpretations or explanations of human actions, achievements, etc., stem from the goals, wants, beliefs, resources and the interrelations of individuals. Social institutions and social change

> are explained by showing how they come into being as a result of the actions and interactions of individuals. For example, whenever we refer to *diffusion theory* in marketing, based as it is on the behavior of individuals, we assume methodological individualism.

Watkins acknowledges that interpreting group behavior presupposes understanding social facts like a society's institutions or its bureaucratic structures but argues such understanding is also needed to interpret individual action since actions are taken within a temporal and contextual framework. While agreeing that the behavior that characterizes a group may not necessarily be a simple summation of individual behavior and that group concepts and explanations may on occasions be useful, he argues that they are never "rock bottom" unless built up from explanations of individual behavior. Watkins concedes that some social regularity is inexplicable in individualistic terms if they are the outcome of a large number of "accidents" or simply the "automatic" group behavior such as that which follows an earthquake. Nozick (1974) endorses this view in claiming it makes no sense to think of society making choices, as only individuals can make choices.[51] And Kenneth Arrow (1963), the economist shows, on the most plausible of assumptions, that there is no rule for combining individual preferences into a social choice that does not generate paradoxes.[52] But the debate continues as is apparent in Amartya Sen's (2003) recent book.[53]

For methodological individualism, all social, political, economic and marketing behaviors are capable of being interpreted in terms of the unintended/intended consequences of the actions of individuals. Even large social processes like inflation and the trade cycle are viewed in terms of individual behavior. Methodological individualists consider concepts like "group mind" "national mood", "institutions" or "classes" as either reified nonsense or analyzable into the actions of individuals. A related concept, "psychologistic individualism", identifies each individual with a given psychological state. Thus neoclassical economics is based on psychologistic individualism in that it identifies every individual with his or her utility function. However, methodological individualism need not embrace psychologistic individualism. Thus, while Popper (1972) subscribes to methodological individualism, he identifies individuals with their problem-situation and not with a psychological state.[54] Yet Popper believes institutions are never *entirely* explained in terms of individuals though regarding all institutions as the creation of individual decision makers. This position is highly defensible.

REDUCTIONISM

The reason that prediction is successful in the natural sciences is that scientific laws working at the level of the individual atoms can be integrated into

new laws as we move up to more complex systems. For example, the laws of electrical charges bring about those of thermodynamics and chemistry. It is interesting to reflect on the physical sciences, as opposed to the social sciences. Thus all species of elementary particles, like electrons, manifest absolutely no individuality but are completely identical. The result is that elementary particles give rise to an unusual interdependence, as described in quantum theory. As Pesic (2002) points out, chemistry like physics also depends on this loss of individuality.[55] But consumers, as people, are not tokens of each other but possess individuality.

Reductionism, as advocated by the logical positivists, seeks to reduce all the macro-sciences to the micro-sciences so that psychology (say) is finally explainable in terms of neurobiology, which, in turn, is explainable in terms of physics. Reductionism in psychology is the conviction that mental states, events and processes can be shown to be neural occurrences. Unfortunately, we do not have any cluster of laws in psychology to reduce and, even if we did, we do not know how such laws could be derived from biology or physics. But, nonetheless, there is still this pursuit of reducing mental states to neural occurrences. But we are a long way from being able to interpret mental happenings in terms of neurobiology.

What about the natural sciences? Even in biology, few believe that biological processes can be understood by just studying genes and molecules. A major unsolved problem in physics is how Einstein's theory of gravity (general relativity theory) can be united with quantum theory. *String theory* (now called M-theory) is the most popular approach to this problem at present. It is promoted as something that can explain all the laws of physics and all the forces of nature: a reductionist dream. String theory is pursued as a 'theory of everything', as advocates of string theory claim that string theory embraces both gravity and quantum mechanics. The theory posits that the basic constituents of matter and energy are not point-like particles but infinitesimally tiny wriggling strings and loops that vibrate in 10 dimensions. What appear to be different particles representing electrons and quarks are simply different ways for the strings to vibrate: vibrations that give rise to all the forces and particles in the physical realm.

String theory is a visionary interpretation of reductionism in physics. Those advocates of string theory are ideologically followers of Einstein, who in his later life sought unified field theories while in disagreement with those like Niels Bohr, who embraced the quantum revolution in physics. Einstein rejected the quantum revolution, which started with the suggestions that light and heat radiation are emitted in small packages called quanta, and instead fell back on his imagination and reason alone to start a second revolution.

String theory has not yielded to empirical verification but the sheer reach of the theory, its beauty and elegance makes it too promising to let go. The absence of experimental evidence in support is not decisive (after all, no hard evidence is just that—no hard evidence) for a theory that eventually

might reconcile quantum mechanics (which governs all particles) with general relativity theory (which describes how matter and gravity interact on the larger scale). But Laughlin (2005) is skeptical, regarding string theory as without practical utility other than to sustain the myth of some ultimate theory of everything.[56] For him, string theory is an exemplar of the 'Deceitful Turkey'; a beautiful set of ideas that always remain out of reach.

From the point of view of this book, string theory represents a revolutionary new perspective for interpreting reality which has given rise to lots of misunderstandings and detractors (Horgan, 1996).[57] But ultimately, as a claim in physics, string theory must be subject to experimental testing. Physicists know this all too well, since a single experiment, the Michelson-Morley experiment carried out in 1887, dispelled the notion of the 'ether' (that hypothetical medium assumed to be a necessary condition to support the propagation of electromagnetic radiation). But this will not be easy, as string theory does not throw up a single model of physics but trillions of models, with Susskind (2005), in a book on the basic concepts of particle physics, viewing each potential model as corresponding to another universe as real as our own![58]

Many in social science find it inconceivable that the concepts and explanations of physics will be able to capture the whole of reality as suggested by reductionism. But *eliminative materialists* claim that, at least in principle, it is possible to explain all behavior without reference to anything happening in the mind; reducing everything to neurology. Critics argue that explanations of behavior that confine themselves to physiology and neurology are capable of explaining only *involuntary* behavior (physical movements) but not intentional action; a difference often illustrated by the difference between the 'blink' and the 'wink'. There may be only one explanation of a reflex movement but human action is interpreted in terms of the context, so a raised hand can be to call attention, or be an attempt to get goods on the top shelf or an attempt to hit someone! For in science, many concepts only apply to macro-phenomena in that, say, 'temperature' and 'pressure' only make any sense at the macro level since an atom alone cannot have pressure or temperature.

Methodological holism is anti-reductionist on the ground that there are autonomous levels in science that are not reducible to explanations at lower levels. While methodological individualism in social science could be interpreted as reductionist, it implicitly recognizes the problems of excessive reductionism by staying at the level of the individual.

The debate between holism and individualism has a long history in sociology (e.g., the individualistic approach of Max Weber versus the holistic approach of Durkheim). In a way, it is a reflection of a modern version of a still older debate between 'realism' and 'nominalism'. Nominalists claim that only individual things are real, that universal categories like man, society, and market are mere names applied to classes of things. Those who stress context and symbolism and underwrite uniqueness come close to

supporting nominalism. Today, the debate is less heated as few of us believe we must take sides. To many social scientists, the basic question is not whether group concepts or group explanations are replaceable with concepts or explanations at the individual level but whether something is lost if interpretations or explanations of social behavior are couched purely in terms of individual psychology.

2 Interpretation and Perspectivism

PERSPECTIVISM

We interpret from a standpoint or perspective. Einstein talked of advances in science as equivalent to climbing a mountain to get a still higher perspective. Perspectives, as the foundation for interpretation, are guidance systems whether in the natural sciences, or in social science (including marketing). If we speak of an overall perspective for a discipline, sub-discipline or research tradition, that perspective is a scientific *paradigm*, a term popularized by Thomas S. Kuhn (1962).[1] Different perspectives give rise to different interpretations of the 'facts' and suggestions as to solutions.

In science, as elsewhere, questioning of assumptions can change perspectives. Thus Einstein questioned assumptions about time. No one had questioned the assumption that any two events, however distant from each other, occur in a definite time order. But such a time ordering for remote events does not exist and the adoption of this change in perspective was crucial to Einstein's discoveries (Lederman and Hill, 2005).[2]

Traditionally, in philosophy we think of the perspectives of empiricism versus rationalism or idealism versus realism, all of which are discussed later. In the last century, one major change in science was the introduction of the statistical perspective, where events give rise, not to a precise result, but to a scatter or distribution of results. The widgets coming off a machine may appear tokens of each other but more precise measurement would show they actually differ, say, in length, with the lengths forming a bell-shaped or 'normal' distribution, resulting from myriad random causes. Similarly, Gillette blades do not all have exactly the same sharpness nor are they equally long-lasting even though to the naked eye they appear exact tokens of each other.

Fay defines *perspectivism* as the claim that there can be no intellectual activity without an organizing conceptual scheme that reflects a perspective. Endorsing the notion of beliefs and assertions being tied to perspectives contrasts with positivist dogma that we can attain knowledge that reflects *Reality As It Is* (Fay, 1996)[3]. Nietzsche (1844–1900) argued that there is no such thing as an objective conception of the world independent

of some perspective and interpretations must be judged from the point of view of the perspective adopted.

Positivism is sometimes contrasted with purely interpretive approaches but interpretive approaches constitute just one of many perspectives regarding inquiry. Differing perspectives can lead to conflict, though such conflict can be constructive and not destructive. Yet the adoption of one perspective rather than another perspective typically leads to differences about what action to take. The New York police department changed its strategies and tactics fundamentally when it was induced to view crime as a police problem and not purely a social problem. Positivism contrasts with perspectivism.

Perspectives affect the way we search for, interpret, and pull together evidence. I may give you my opinion from a political point of view or from the viewpoint of being an economist, historian or as a specialist of some sort. Sommers and Satel (2005) contrast the perspective of moral philosophers who attribute bad conduct to flawed character, weakness of will, failure of conscience or bad faith, in contrast to the 'therapeutic' perspective where unacceptable conduct is attributed to maladies, syndromes and disorders.[4] There can be truth in both perspectives.

Customer orientation, providing what consumers say they want, is the advocated perspective in marketing. This orientation claims to be concerned with 'effectiveness' (achieving what has to be achieved) rather than mere 'efficiency' (minimizing inputs of resources relative to outputs) which can often shortchange the customer. A good example of focusing on efficiency is the attempt by companies to automate customer relations with the endless time it takes to obtain the service being sought. Few service centers seem to realize that in listing 'if this is wanted press 2' and so on, the list of alternatives has to be exhaustive and mutually exclusive if the system is to work without the customer having to go back and forth.

As a generalization, customer orientation is the right way to go but only within constraints. After all, customers would *want* to pay nothing for the firm's offering, so 'giving people what they want' must be within constraints. A more complete perspective views consumers as having wants that need to be activated; recognizing that consumers do not recurrently know exactly what they want but are open to persuasion. No one was demanding the iPod when it first appeared in 2001. Quite the contrary, it was apt to be ridiculed. Consumers are not all-knowledgeable about the products they want or the products they buy; do not know all about competing brands; often do not know what they want and possess not perfect but flawed rationality.

Even when supplied with exactly what they want, consumers often find, during usage, it is not exactly what they need. Additionally, in customer orientation, we would like to address each prospective customer's wants individually, to customize offerings and personalize execution of the service. But even if this were possible, there is the expense of doing so. Modern technology is helping, however, as it enables access to information that allows better evaluation of alternatives.

Urban (2006) argues for a perspective he calls 'advocacy' marketing and, as an analogy, quotes McGregor's (1960) Theory X and Theory Y views of man.[5,6] Theory X views man as lacking in ambition, disliking responsibility, self-centered and resistant to change. Theory Y views people as not by nature passive or resistant to change but with the motivation and the potential for development and the capacity for responsibility. McGregor argued people may appear as described in Theory X because of the way they are treated. Similarly, Urban titles the current push/pull marketing as Theory P and contrasts this with Theory A, 'advocacy' marketing. Theory P's perspective views customers as evading decision making, lacking imagination and having to be coerced to buy. Theory A's perspective, on the other hand, views customers as accepting responsibilities, being active decision makers, liking to learn and being creative and imaginative. The implications of accepting Theory A is *trust-based* marketing, with advocacy for their customers.

McGregor's Theory X and Theory Y perspectives reflected an old debate with Hobbes (1588–1679), believing man can only be kept good by fear, and Rousseau (1712–1778), who assumed man was innately good but had been corrupted by society. But Kant (1724–1801) was right in saying man incorporates bits of both. It is the same with Urban's Theory P and Theory A: some consumers are like Theory P and some like Theory A but most people are bits of both depending on the buying situation. McGregor's Theory X and Theory Y assumed workers' conduct must be either the cause or the effect of management policies. This is a fallacy in that management practices and workers' conduct can modify and affect each other; they form an interacting system. It is the same with consumers and sellers; they form an interacting system. While the firm's policies can give rise to consumers' avoiding decision making, lacking in imagination and so on, the consumers' own behavior can induce such policies.

Professors, doctors, lawyers and other professionals are often pressured to give their 'customers' what they want—at the cost of undermining their role as professionals who have an obligation to give customers what they need or are employed to provide. One 'customer-oriented' view in medicine is that you treat patients as if they were members of your family; you talk to them, comfort them and take time to explain to them. But if customers, they are then just there to purchase health care, so the relationship changes. Many regard this as turning doctors into shopkeepers.[7] The article from which this view is taken suggests that using the term 'customer' makes the relationship a business one and this injures the caring relationship between doctor and patient. More relevantly, for the doctor or the professor, the term 'customer' suggests a flawless rightness in customer demands.

The Words Chosen Influence Interpretations and Perspectives

Interpretations are always influenced by the words used, as words reflect and can induce a perspective. Ostler (2005) relates how Umar ibn al-Khattab, an ardent opponent of Muhammad, when exposed directly to the prophet's

actual words, could only cry out: "How fine and noble is this speech!"—and he was converted.[8] Consumers are very much affected by the way a product is described and presented—even if more influenced by using the product. When Baskin-Robbins replaced the words 'three scoops of ice cream, a slice of banana, and two kinds of topping' with the words 'Super Banana Treat' in their stores, sales more than doubled.

Advertising can imbue a brand with symbolic meanings (e.g., of status) and such symbolic meanings are just as much a part of the brand as its substantive properties. The cross signifies Christianity but symbolizes for Christians suffering and redemption. Experiences that are sought because of their symbolic nature can be highly valued. Consumer satisfaction does not distinguish between interpretations of the tangible from the symbolic interpretations with which the product is indelibly linked. Optimum satisfaction is reached when the customer, after buying, using/consuming the product, can say, without hesitation, she has *no reservations* whatever about having bought the product. But satisfaction is a complex concept in that a meal may satisfy my hunger but not satisfy my desire. A better concept than 'satisfaction' is meeting or exceeding expectations since expectations imply the standards used to judge degree of satisfaction.

Multiperspectives Can Be Functional

If we followed Goethe's motto of 'many-sidedness' we would expose ourselves to many perspectives and look at something in different ways (that is, from different perspectives) which may persuade us into a different mode of thinking about a topic. To take a mundane example, suppose you are a salesperson and are told that an attempt to persuade is an *offer of affiliation* and its acceptance an act of affiliation. This is the claim made by Mayhew (1997) and, if this perspective is accepted, it is likely to move us into thinking differently about selling tactics.[9] This does not mean that *all* judgments are made from a particular perspective. We make factual statements all the time, like saying that no one is immortal, which assume no specific perspective at all. Nonetheless, knowing someone's perspective is basic to knowing where they are coming from and can be basic to persuasion.

In the UK, the public's perspective on mental illness shifted dramatically in the early 1990s after the publicity given to one mentally ill person killing someone on the London Underground. From a perspective that mental patients are victims of a harsh, uncaring system arose the new perspective of mental patients being killers on the loose. This change in perspective dramatically affected the number of people detained under the Mental Health Act (Firth, 2004).[10]

Perspectives and Persuasion

As the last paragraph illustrates, persuasion and perspectives are related because in persuading someone, it helps to take account of how he or she

sees things. Changing a perspective may amount to no more than exploiting some metaphor to switch the target audience into seeing things differently. The metaphor of the 'domino effect' had a stranglehold on thinking about the war in Vietnam, suggesting the loss of the war would lead to the loss of other countries in the region. The most extreme and frightening example of this use of metaphor is how Nazi doctors came to disregard their Hippocratic Oath, like Josef Mengele did in murdering German Jews.[11] How was this possible? One partial answer is that the medical profession under Hitler was persuaded to view Jews as a public health problem through a perspective induced by the metaphor of Jews being 'a disease that contaminated the body public'. Putting forward a proposed perspective in a metaphorical format is one of the most common approaches to changing perspectives. For example, those who defend keeping highly disruptive schoolchildren in the same school regardless may change their minds if presented with the assertion that disruptive students *rob* other students of their right to an education, demonstrated by stories that resonate emotionally. Of course many metaphors are no longer seen as such, being so much part of the language as when we speak of the 'mouth of a river' or 'the neck of a bottle'.

There are always alternative windows through which to view a problem. This does not make the reality 'out there' a matter of subjective opinion, but may simply claim that different windows provide different viewpoints, with the recognition that some windows are better than others, depending on the problem being addressed. This can be illustrated in the philosophy of science. The traditional perspective on the subject was exemplified by Ernest Nagel (1961) in his erudite and impressive *The Structure of Science,* where the perspective was normative in approach, aptly illustrated by examples drawn from most branches of science (including social science).[12] But along came another perspective, that of Thomas S. Kuhn in his *The Structure of Scientific Revolutions* (1962), where the perspective was historical (developmental and evolutionary).[13] Kuhn's perspective has taken over in the social sciences as being more descriptive of what actually happens. Natural scientists, if they read such books, are more respectful of Nagel's, which is a far more demanding book as well as more to their liking. While both perspectives are justified, it is sad that Nagel, who had such a great deal to say about the philosophy of the social science, is now so neglected.

Problems, Interpretation and Perspective

A difficulty is a symptom of a problem. The difficulty has to be interpreted to arrive at problem *diagnosis* or problem *recognition*. To diagnose a problem is to make a choice about how we are to formulate the problem, which, in turn, depends on what we believe counts as a solution. And what we believe counts as a solution depends, in turn, on our perspective. We cannot

even understand a problem without understanding what would count as a solution. Typically, specialists view solutions as falling within their area of expertise. Thus if there is a failure to deliver to time and specification, the OR (operations research) specialist is apt to see it as a problem of inventory control; the systems and procedures specialist as a problem in systems and procedures; the human resources specialist as a problem of motivational climate and so on. The recognition of different perspectives driving problem recognition has led to the advocacy of a multidisciplinary or multiperspective approach to a problem.

A perspective, as a system of integrated beliefs and recalled images, provides a lens through which to interpret what is going on. It can be so ingrained that it is difficult to entertain any notion that things could be otherwise. A example is U.S. foreign policy immediately after 9/11. The traditional view during the 'cold war' and after was that terrorism was always state-sponsored. After 9/11 this state-centered mind-set, according to Neumann (2004), continued among those in charge.[14] The result was to immediately suspect Saddam Hussein, with Secretary of State Donald Rumsfeld suggesting military strikes against Iraq.

Interpretation and the Concept of a Text

Interpretation involves making sense of individual words, symbols, expressions as well as giving coherence, meaning to the whole. In today's terminology, this amounts to grasping the meaning of the 'text'. The use of the term *text* is adopted from literary criticism to cover any symbolic representation put forward for interpretation. The text can be a written representation, speech, films, and art forms and so on. One legal theory tradition views law primarily as a text which claims to be in conflict with common law in which law as a text is rejected in favor of law as a practice. (But surely practice can be read as a text?) The notion of a text as a metaphor is useful, though it sounds somewhat strained when we talk about a product being a text!

Interpretation, Cultural Perspectives and Language

Language influences perspectives. Nicholas Ostler (2005) in his seminal book on language history puts it as follows:[15]

> A language brings with it a mass of perceptions, clichés, judgments and inspirations. In some sense, then, when one language replaces another, a people's view of the world must also be changing (p. 13) . . . Evidently, living in a particular language does not define a total philosophy of life; but some metaphors will come to mind more readily than others; and some states of mind, or attitudes to others, are easier to assume in one language than another. (Ostler, 2005, p. 17)

In marketing, lip service is paid to understanding foreign cultures but we assume in practice that self-reflection on how we would act ourselves is all that is needed. Sometimes it is, but often it is not. It can help a great deal to understand the language. There is evidence that countries that trust each other tend to trade more with each other and the same is true of cross-border investment: culturally based trust can shape trade and investment patterns.[16] Understanding the other's language contributes to inducing trust.

Interpretation in the Natural Sciences

In the natural sciences, where interpretation occurs against a background of a scientific paradigm, it would seem the natural sciences would never *consider* interpretation to be a problem. In contrast, the phenomena investigated in the social sciences, like governments, are not 'natural types' fixated by nature, but are social constructions. But contrary to popular opinion, interpretation in the natural sciences can be a problem. Thus the Copenhagen interpretation of quantum mechanics proposed by Niels Bohr is opposed by the pilot-wave interpretation associated with David Bohm: rival interpretations that still compete suggest how difficult it is to get agreement when the evidence is not compelling.[17]

Perception and Interpretation

Knowledge is acquired largely through perception or more basically through the senses on which perception depends. Perception bestows coherence and a unity to input from the five senses. But what is perceived is not completely determined by the physical stimulations. Motivation can influence perception in that hungry people are apt to perceive food in the most ambiguous of stimuli and poor children exaggerate the size of coins and so on.

In psychology we generally think of perception in terms of its being either an event (as when we say "my perception of the situation is . . .") or a process whereby we recognize, organize, structure and label sense impressions so that we can discern patterns and tie them together. The process view is rejected by Bennett (a neuroscientist) and Hacker (a philosopher) (2003), who argue perception is instantaneous, simply an occurrence that is not in any way the conclusion of some inference process.[18] Thus understanding what people are saying is one form of sensory perception but we do not feel that such understanding is other than instantaneous. Bennett and Hacker argue that the *neural* processes that lie behind perception are not a *process* of perception: when one sees something, feels something, hears something etc., one has done it. While we may have doubts about what we see, 'to see' itself is not to form a hypothesis.

Bennett and Hacker (2003) deny the traditional view that perceiving entails having sensations. They reject this view on the ground that to have a sensation refers to things like tickles, pains, and twinges whereas

perception is of *qualities* such as colors, sounds, smells, tastes and things we can feel. This confusion may have its roots in an assumed relationship between the words 'senses' and 'sensations'. Objects perceived exist independently of whether they are perceived but a sensation occurs only when felt. Perceptual skills can be sharpened but we cannot talk of sharpening our skills in *feeling* sensations. Sensations do not entail interpretation and neither are they the conclusions of unconscious inferences.

We commonly view perception as a passive activity in buying, though perception is typically a part of some ongoing action sequence with the consumer proactive rather than being merely passive or reactive. Perception is selective, or as Alva Noë (2004) words it, rests on a choice, not something that happens to us, with *touch* not vision being the model for perception. Perception is instantaneous with the senses providing the input. Of the five senses involved, namely, sight (recognition), hearing (distinguishing), taste (distinguishing), smell (detecting) and feel (discerning), only feel (tactile perception) is not confined to one organ, as feeling can come from any part of the body. This suggests that a product that appeals to all the senses has a better chance of being desired, other things remaining equal. There is at least one book that makes distinctive appeals to all the five senses its central thesis for building a brand (Lindstrom, 2005).[19]

"Facts" as Concept-dependent vs. Theory-loaded

If a perspective is viewed as a 'theory' as to how 'facts' are to be interpreted, it may be concluded that all facts are 'theory-loaded'; that is, there are no facts untouched by theory. Nagel (1979) denies that all observation terms involve theory and are therefore unavoidably "theory laden"[20] He claims in fact that:

> Most if not all the terms employed in describing the observations that are made with the intent of testing a given theory usually have established meanings that are not assigned to those terms by the very same theory. . . . It is simply not true that every theory has its own observation terms, none of which is also an observation term belonging to any other theory. (Nagel, 1979, p. 93)

Hacking (1983) similarly argues that it is false to assume that observational reports *always* embody theoretical assumptions unless we subsume under the word "theory" every assumption being made.[21] In any case, theory-loaded does not necessarily imply being theory-determined since people can rise above what theory suggests. But, more fundamentally, outside the natural sciences, it is much more the case that 'facts' are concept-dependent rather than theory-dependent since people classify on the basis of the concepts they possess. If, from our perspective, we classify an action as habitual, the *concept* of habitual action leads us to think in certain ways

about that action and closes off other ways of thinking about that action. Nonetheless, theory-dependence is inevitable when 'facts' are selected in accordance with some scientific paradigm. Concept definitions in the physical sciences are thus typically theory-impregnated like the definition of a machine by physicists; that a machine is any device that lets a small force (the effort) overcome a larger force (the load). This definition is a scientific one and is theory-dependent for any full understanding.

Concepts and Perspectives

Acquiring the concepts relevant to any field of knowledge is basic as they sensitize us to what is important. A car mechanic looking at a car engine will see far more attributes of the car engine than someone who knows simply that it is a car engine. We see what we are taught to see. The concepts we hold direct us to what we perceive, though what we perceive can be distorted by having the wrong perspective. With all the criticisms made of the social sciences, they have given us a set of sensitizing concepts that lead us to see things with more insight into human behavior.

If we accept perspectivism, it makes no sense to talk of 'Reality as it Really is' since we always view things from a point of view that links to our stock of available concepts, and our belief system with its own assumptions and biases. It was Gilbert Ryle (1949) who said we can only observe a *conceptualized* reality, not because our vocabulary is deficient, but because the very notion of an unconceptualized reality is absurd.[22] The very notion of seeing the world free of any perspective is incoherent.

There is no such thing as 'Reality out there' free from all interpretation. Does this mean that, if perspectivism is inevitable, Susan Haack (1993) is wrong in saying that there is one, real world that the sciences aim to discover?[23] The answer is negative. Just because we have many windows onto a topic does not mean that each is not contributing to our understanding of the same whole. Science provides a particular perspective, namely, one beyond mere appearances. While we construct conceptual systems to interpret the world, this does not undermine the claim of science to represent what the world is beyond appearances.

It is alleged that perspectivism is less a challenge to positivism than it seems in that, even when individuals do argue from different perspectives, there is typically more agreement or at least understanding of the other's perspective than would be compatible with the supposition that perspectives are entirely subjective and idiosyncratic. This is consistent with the view of different perspectives constituting different windows onto a problem. Facts are those about which there is agreement, and even if this agreement is universal, this does not mean no preconceptions are involved. We may look at a pool and everyone agree to the fact that it is full of water when we mean it looks like water, since there is always a possibility that looks deceive and it is not H_2O. There is this prevalent belief that unbiased observation will

always provide the 'facts'. Thus Hill (2003), in recommending marketers adopt a methodology to access unconscious intuitive reactions, argues that observation can capture the unconsciously driven behavior.[24] He goes on to assert that the human body does not tell lies and our bodies embody and reveal our reactions whether we like it or not. It is as if observation is unproblematic, an unconceptualized part of reality with people's perceptions in agreement as to what to observe. There can be no set meaning to a gesture or other forms of non-verbal behavior since gestures etc. are not isolated signal boxes sending out unambiguous information. There is always a need to consider context to understand meaning.

While different perspectives need not be in conflict but represent different windows onto a problem, this is not always so. Thus we have the perspective on life of Pascal Khoo Thwe (2003) from a Burmese hill tribe: a perspective that claims singing during harvests invites the spirits of prosperity to remain while swearing and quarrelsome behavior drive them away; the elders of the tribe, trying to cure someone's illness, have to decide on where the person's 'yaula' (protective shade) has left him so as to coax it back with gifts, leaving a trail of rice to show the way; that a green ghost appears when someone is murdered and has to be enticed into the coffin and chased away with gunfire after burial.[25] The set of beliefs constituting this perspective will just seem bizarre to those brought up in a modern technological society. But citizens of the most modern of countries have perspectives not corroborated by scientific facts. As Grayling (2003) says, 50 million Americans claim to be allergic to something or other and spend $10 billion annually on remedies in the belief that the environment is a hostile, toxic place, with pathogens, pollutants, parasites, processed food and chemical additives steadily eroding the health and well-being of the nation.[26] This seems an odd perspective given that we live in an era which has never been healthier—and safer, despite terrorism. Grayling says this testifies to a human need to be afraid of something. Even if this is not quite the position, it does seem humans are innately vigilant to potential threats even if these threats have an exceedingly low probability of actually being realized. Insurance companies accept this is so and exploit the need to have 'peace of mind'.

Interpretation and Information

Interpretation of events and hence our judgments and decisions are tied to the quality of information. But credible information is not necessarily correct. Thus for years doctors prescribed the pain killer OxyContin, believing that the risk of addiction was less than one percent. The figure of one percent was promoted by the drug manufacturer as a scientific fact, though, after the drug had damaged many lives, it was revealed that this so-called evidence was based on a small study of no relevance for consumers (Meier, 2003).[27]

'Facts' are concept-dependent in that what we select and interpret as 'facts' depends on the concepts embodied in our perspectives. Hence, if the mind does not have the appropriate conceptual schemata to evoke a certain interpretation, that interpretation will not occur. Adopting one perspective rather than another is equivalent to adopting one conceptual lens in preference to another.

Hippocrates (460–377 BCE) adopted the perspective that an imbalance among the humors (blood, phlegm, black bile and yellow bile) is what causes pain and disease and good health is achieved through a balance of the four humors. Throughout the Renaissance humoral theories of the body created perspectives for interpreting not just the diseases of people but for interpreting the health of society itself. It was not until the advent of the germ theory of disease in the 19th century that perspectives on disease were revolutionized. As in life generally, when our information is wrong, the decisions based on that information are deficient.

We might gain a greater understanding by embracing several perspectives. As Schweder (2003) says, knowing the world from just one perspective is always incomplete.[28] On the other hand, it is incoherent if we attempt to see the world from all points of view at once and completely empty if seen from nowhere in particular. This sums up the case for perspectivism.

Definitions and Perspective

Definitions are a prelude to all classification and different definitions can reflect a change in perspectives and affect classifications. Thus, if from one perspective, individual rights are under threat, any law making everyone carry an identity card would be classified as government suppression of individual rights. When perspectives are strongly and directly tied to values, there may be no rational way of proving the claims of one perspective versus a rival perspective. In such cases, rhetoric holds sway. This is not surprising since, when those holding rival perspectives do not agree on basic premises, argument can take the form of mere assertion.

Definitions often reflect a contested perspective because the acceptance of certain definitions can be decisive in a debate. Thus Cohen and Nagel (1934) word it well:

> Quarrels over the 'right' definition are often attempts to locate fundamental features. For from a definition is deduced certain consequences. Unless the definition is accepted the consequences will not be. The age-long dispute about the nature of law involves this problem. Is "law" to be construed as a command, as a principle certified by reason or as an agreement? The controversy is not simply about words. It is concerned with making one rather than another aspect of law central so the appropriate consequences may be drawn from it. (Cohen and Nagel, p.230)[29]

There is a current dispute over the definition of a 'planet' since that decided on by the International Astronomical Union would demote Pluto, leaving the solar system with just eight planets. There are many examples in daily life. If we accept alcoholism as a disease, its 'cure' is more easily funded; if we define Black English as a distinct language, funding becomes available; if we get our child with social and learning problems tagged autistic he will get more educational help—particularly if it is classified as a 'disability' rather than a mental disorder. How issues are defined is also a way of trying to change perspectives. This lies behind an early Philip Morris campaign of defining the cigarette dispute as one of freedom of choice. In more general terms, Deming (1982) was to point to the inherent dangers in using vague definitions in manufacturing in that to measure some attribute there is first a need to ensure that attribute is well-defined.[30]

The neat categories into which we put things emanate more from our perspective than from nature. This needs to be said since it is generally assumed that the classifications in science reflect nature's divisions. Scientific classifications do not yield precise, absolute classes, guided in some way by nature's natural order. Scientific classifications, like all classifications, are purpose-driven and are always partly arbitrary as they are in social science. Thus *cladistic* classification in biology, based on how organisms have evolved, typically has to cope with cracks in the evidence that need to be filled by conjecture. This is probably why 'classification theory' in statistics where items are organized in accordance with different definitions of closeness has not had the impact expected.

Operational definitions or operational measures of terms in a theory do not come easily since they require an observational reference. Just think of the many attempts to get an *agreed* operational definition of 'attitude' defined as a predisposition to react in a certain way to some event, person or thing. The problem of getting agreement over a definition can be political. Thus the definition of 'torture' in interrogating enemy combatants is a political problem since most of us would agree to some denotative definition whereby interrogation methods are illustrated and listed to judge what outraged our conscience or the Geneva Convention. Operational definitions in the human sciences provide core *referential*-meaning to complement *sense*-meaning. It is easy to invent models composed of terms with sense-meaning without giving them any referential-meaning so we can see concretely what is being referenced. The earlier editions of the psychiatrists' *Diagnostic and Statistical Manual* (*DSM*) suffered this way. It was not until *DSM-111* that psychiatrists began to use diagnostic terms consistently, with the result that psychiatry boomed after 1980 and major advances began (McHugh, 2007).[31]

Analytic definitions are meant to unambiguously differentiate one term from the other terms falling into the same general category—to give the 'essence' of whatever is defined, like saying man is a rational animal, with animal being the 'genus' and rational being the 'differentia'. Analytic

definitions reflect a specific perspective. Thus Louise Richardson (2006) defines 'terrorism' as actions that deliberately and violently target civilians for political purposes.[32] She argues that only such a definition will allow us to forge effective international cooperation against terrorism. But views about essences do change and with it our interpretations. Who, for example, would have conceived of non-alcoholic beer which at one time would have been considered an oxymoron?

For some terms there is no 'essence' and so cannot be defined analytically. We have in fact no analytic definition of the word 'emotion'. Emotions have what Wittgenstein (1953) calls a *family resemblance*.[33] Like the word 'game', there is no definite set of features common to *all* emotions. Emotions simply have a family resemblance in that any two emotions have some attributes in common while other pairs of emotion share other attributes. Yet the assumption of a product class possessing an essence is important in marketing. Just consider the attempt of Continental manufacturers to obligate British manufacturers of chocolate to desist from describing their product as chocolate because its ingredients (the same for 200 years) were not the same as those in the rest of the European Community.

In spite of what has been said about essences, definitions should give us some idea of the nature of the concept. This is far from always being the case in marketing. Thus the definition of 'engagement' by the Advertising Research Foundation (ARF) as turning on a prospect to a brand idea enhanced by the surrounding context is really a definition of the goal of engagement. Engagement in advertising is a process and not an outcome and needs to be defined in terms of the audience being attentive to the ad and reflecting on the content (Cunningham et al., 2006).[34] The 2004 definition of marketing, announced by the AMA at the AMA Summer Educators' Conference:

> Marketing is an organizational function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.

This definition could be the definition of any commercial organization, except for saying it is just one function of the organization, because it is all-embracing. It is a definition tied to meeting the aspirations of marketing academics. On the other hand, it is criticized as too narrow a definition in that it confines marketing to activities and processes, limiting the areas of interest (Gundlach, 2006).[35]

Interpretation in Categorizing: Family Resemblance, Darwin and Market Segmentation, Conjunctive and Disjunctive Definitions

In interpreting behavior, whether individual or group, context is always relevant. In science, Charles Darwin took us back to the importance of

context for species (group) behavior. Whereas a scientific law ignores context, Darwin showed the importance of context in pointing out that the specific ecological niche is what matters since the niche determines which organisms live and get to reproduce and which do not. But contrary to popular opinion, Darwin's *On the Origin of Species by Means of Natural Selection* did not explain exactly how one ancestral species comes to divide into many. It was Ernst Mayr, a biologist, in the 1940s who tackled the problem by rethinking (reinterpreting) the concept of a species, not as a group of organisms that look alike but as a group that can breed among themselves and not breed with others. 'Looking alike' is just insufficiently operational—unless we accept Fluellen's 'proof' in *Henry V* that the towns of Macedon and Monmouth are alike because both have rivers with salmon in them! In biology, species are defined in terms of interbreeding: a species is a set of organisms that can interbreed and biologists call the mechanisms that stop further interbreeding 'isolating barriers'.

This helps us interpret market segments. A market segment ought to be conceptualized, *not* exclusively as a group of potential buyers who look alike in demographics or act alike in lifestyle but as consisting of a set of attributes reflecting potential benefits that constitute an anticipated want (potential future purchase) of a specific target group: a want that is not met by other market segments. The concept of a species in evolutionary theory is defined as a distinct cluster of correlated features in groups that are reproductively isolated. Similarly, a market segment is a distinct cluster of benefits or attributes which target customers seek as more attuned to their wants. Contrary to popular opinion, Darwin acknowledged Lamarckian inheritance of *some* characteristics that had been acquired. This all runs contrary to the assertion that change only occurs by selection of the variants that are a better fit to the relevant niche. Certainly, organizations do pass on acquired characteristics just as advertising agencies pass on their overall approach to advertising. But Darwinian evolution goes very slowly. This is because individual species evolve very little after once being established. It is *cultural* evolution that brings about most change today. Cultural evolution is not Darwinian in that the spread of cultural ideas is not through inheritance, but by the horizontal transfers of ideas: a fast process that facilitates globalization.

In markets, consumers choose (or they are persuaded to choose) a preferred segment of the market and then choose within that segment to meet a more specific want. Sellers can be viewed as seeking to erect protectionist 'isolating barriers' by ensuring their offering (product, price promotion and distribution) possesses a critical advantage, that is, a competitive advantage that is unique to the seller and of central importance to the buyer. On occasions, it can be of central importance to the buyer by helping him or her differentiate themselves from others by giving status or visibility. We seek self-differentiation even as we seek to be sufficiently like those in our social milieu to be accepted.

The advantage of an offering may on occasions be a single claim that changes as a product is updated, as illustrated by the Gillette razor (*Business Week,* February 6, 2006, p. 12):

> Original Safety Razor (1903 single blade): "Will hold its edge for 20 or 30 shaves".
> Trac II (1971, two-bladed cartridge): "Two blades are better than one".
> Sensor (1990, spring-mounted blade): "Can sense and adjust to the contours of your face".
> Mach 3 (1998, three blades): "You take one stroke, it takes three".
> Fusion (2006, five blades, plus a trimmer): "The comfort of five blades, the precision of one".

The advantage is commonly not a single attribute but a constellation of things even if stressing a single novel advantage makes promotion easier. If we look at Starbucks, the high price of its coffee transmits its premium quality but that would not in itself give it a critical advantage which consists of a set of interrelated benefits related to the cultivation of relationships with customers; its product(s); relaxing ambience where customers are able to chat comfortably over their coffee—as well as its premium coffee. Many of us would not pay the price for this offering but it goes without saying that a sufficient number of people must be conscious of the advantage, perceive it as a critical advantage and have the resources and opportunity to purchase. (It may be current problems for Starbucks result from moving away from its critical advantage and losing out as a result.) A firm may think its competitive advantage and the 'core competence' that goes with it can turn about any rival it buys through passing along this advantage. This can be an error that was made by BMW when it took over Rover, the British car firm: Bavarian engineering proved insufficient.

Sellers within the same segment are *direct* rivals since their aim is to increase their segment share through *converting* from other sellers within the segment while *maintaining* or *increasing* sales to their existing customers. Sellers can also seek to *attract* new buyers from the other market segments by showing what they have to offer may better meet their want. But if consumers buy in other segments of the same market, it is to meet a related but different want.

In a competitive market, segmentation is inevitable. Even in recruitment by 'headhunters' there is the need to consider whether to focus on a profession or industry. Though manufacturers talk of a brand catering to the whole market, analysis demonstrates that, in a competitive market, the appeal is more limited and it is wise to acknowledge this. A *Business Week* (2004) article comments:

> If ever a brand epitomized the great, one-size-fits-all mass market, it is Tide, right? Wrong. Or so says Procter & Gamble itself. James

> R. Stengel, P&G's global marketing officer, insists that his company's bulging portfolio of big brands contains "not one mass-market brand, whether it's Tide or Old Spice"—or Crest or *Pampers or Ivory. "Every one of our brands is targeted.* (p. 61)[36]

The article claims there is an evolution from mass to micromarketing. But segmentation has always been the market reality whatever the intentions of the manufacturer. The article goes on to say that the country has 'atomized into countless market segments defined not only by demography but by increasingly nuanced and insistent product preferences' which has important implications for traditional mass media and their heavily ad-dependent business models (pp. 61–62).

Add to this the migration of TV shows to cell phones, Web sites and iPods and the problems magnify.

A market segment should be interpreted as consisting of brands with a family resemblance in terms of benefits being provided, which implies each segment will be catering to actual or potential customers who are more alike in what they want than when compared to other segments (more *within* group similarity than *between* group similarity). But again, this is not to suggest that consumers buy in just to one segment. As with clothes, they may buy within several segments (even on the same occasion) but, as they move from one segment to another, the want to be satisfied differs.

Interpreting Market Segments: Problems with Seeking a Conjunctive Definition of a Segment

A *conjunctive definition* of a market segment consists of *all* the necessary and sufficient conditions that define that segment, that is, a segment consists of the commonality of benefits sought (product, price promotion and distribution) by the defined group of buyers who fall into the segment. A conjunctive definition of a specific segment of a market would consist of a list of attributes, all of which *must* be present to qualify as a member of that segment. The list of attributes would consist of all those benefit attributes that define what the company has to do to qualify to be part of the segment plus the demographic attributes defining the target audience.

The list of product/offering benefit attributes and buyer attributes is the set of conditions which are severally necessary and jointly sufficient for segment membership. If these attributes can be defined in concrete terms, we have an *operational* definition of the segment. The notion of positioning requires an additional step in that a company aims to position itself in a segment vis-à-vis its rivals and (hopefully) provides a meaningful niche for itself in the mind of its target audience. It does this by promoting what is unique about its offering and of central importance to the buyer for the function(s) the buyer seeks. The positioning statement is designed to answer

the question: Why should those in the segment chose us rather than buy from a segment rival?

In the market for toothpaste we have the following examples:

- *Colgate Time Control:* Fortifies gums, helps fight gum recession, fights root cavities and combats the ageing process by mitigating the effects of time, helping maintain a youthful smile.
- *Colgate Simply White:* Advanced whitening toothpaste.
- *RetarDEX:* Breaks down and destroys bad breath bacteria, leaving your breath fresh.
- *Sensodyne Pronamel:* Hardens your tooth enamel and protects your teeth from the effects of acid erosion.
- *Aquafresh 12 Hour Complete Care:* Advanced triple protection formula with triclosan. Long lasting protection.

These claims constitute distinctive use-function benefits that hopefully make for a competitive advantage, other things like price and distribution remaining constant. Other attributes like a powder rather than a paste can be regarded as a feature distinguishing the segment as a whole or as an add-on if some rival is making similar competitive claims. A competitive advantage may be primarily a matter of perception. Thus if the Bayer brand of aspirin is the only one to claim it can help prevent heart attacks, its target customer group may believe the brand is the only aspirin with this property, though all aspirin has it. Even if consumers accept that other aspirins have it, the heavy advertising by Bayer will suggest their aspirin 'especially has it'.

A conjunctive definition makes the *interpretation* of a class unambiguous. Thus it would seem that one way to avoid vagueness and ambiguity in defining segments would be to seek conjunctive definitions covering the relevant benefit attributes sought. While each brand belonging to a segment will have the necessary and sufficient benefit attributes to belong to the segment, brands will nonetheless still differ to give them a competitive advantage. Unfortunately, things do not generally lend themselves to conjunctive definition.

Segments resist being defined by a set of necessary and sufficient conditions. The same is true for most terms in everyday use. Precise definitions of everyday concepts, like 'want', 'segment', and 'market', are seldom without exceptions.[37] Sometimes items grouped have no single thing in common (like Wittgenstein's example of the word 'game' mentioned earlier). The inability to agree on a conjunctive definition is pervasive in public debates, like the public debate on what constitutes pornography or deception in advertising. Everyday words have vague boundaries with some instances of the word illustrating usage better than others, in that they are recalled more easily with less effort.

Nonetheless, we can think of markets and market segments as forming a sort of hierarchy as in the following example where the 'market function' is measuring time:

Level for defining benefit attributes	Illustration
All inclusive market function(s)	measuring time
Distinctive basic segment	wrist watches
Specific types	ladies wrist watch etc.
Variety	quartz, mechanical etc.

The benefit constituting the overall market function(s) (measuring time in the previous example) can be realized in different ways. This is what gives rise to different market segments. Segments can be at any level below the all-inclusive market function with each segment composed of different brands. With brands varying within the segment, these differences, through 'natural' (brand) selection, lead to some brands succeeding more than others. As in evolution, natural selection operates for the good of the organism (in this case the brand) and not the segment.

Natural selection in evolution proceeds providing three things are in place: (a) variation in a trait, (b) the effect of that variation on reproductive success, and (c) some mechanism by which the trait variation is inherited. Similarly, in successful segmentation there is

1. Variation in the offering
2. An effect of that variation on market success and
3. Some mechanism ensuring the variation becomes part of the core competence of the producer.

The notion of 'the survival of the fittest' is completely un-Darwinian. Just as the biologically fittest means 'fittest' for the niche and does not in any other sense imply the best, the 'best' brand is simply that brand within the segment that is the most successful: it does not mean it is the best on any other criteria. Evolution cannot be equated with progress but is purely concerned with adaptation. Darwin, unlike the neo-Darwinians today, was not antithetic to the idea of organic or social progress but did not regard progress as inevitable or necessarily emanating from something innate. The same goes for a company's brands.

There is the problem of commercial viability since, as we move down the hierarchy, there is a more precise description of benefit-attributes and customer characteristics but the target customer group diminishes in size. Hence, segmenting the market loses much of its significance when the market is thin or members of the market constantly migrate in and out.

Interpretation of Market Segments: Disjunctive Definition of a Segment

Classifications are interpreted in the light of one's perspective and science provides us with some very different perspectives on reality. This can lead to odd classifications unless we are familiar with science. An example is glass, which appears a solid but is classified in physics as a super-cooled liquid because the pattern of its molecules is more like a liquid than a solid. Because, over the years, glass flows like a thick liquid, we find in centuries-old windows, the glass is thicker at the bottom than at the top. Similarly, a kiwi is classified as a bird in cladistic (evolutionary) classifications even though it has no wings.

Levine (1985) maintains that when it comes to social science classifications, all classifications hide deep ambiguities which, if understood, would make our judgments and interpretations in social science more mature.[38] The same goes for segmentation classification. But errors in classifications can be much simpler, like causing confusion by not using just one basis for division into categories. Thus the most frequently quoted classification of roles in buying is the five-category classification into (a) users, (b) influencers, (c) buyers, (d) deciders, and (e) gatekeepers proposed by Webster and Wind (1972).[39] "Users" are those who will use the product; "influencers" are those who define the choice criteria, constrain choices or provide information on alternative offerings; buyers have the formal authority for choosing suppliers and dealing with the commercial aspects of the purchase; "deciders" are those who determine the ultimate supplier; "gatekeepers" are those who control the flow of information to participants. This is like classifying churches on the basis of whether they are Gothic or Episcopal as if there was in this class just a single basis of division. The classification is just not operational in that a user, for example, does not define any particular role in the decision process but a role after purchase, while every participant is there to be an influencer.

All classifications are based on purpose and can change with context, just as we might classify an egg on a plate as food but on one's shirt as a stain. A segment may have a family resemblance on eight benefit attributes yet only 10% of the brands, within the segment, may have all eight attributes. Segments here can be based on some combination of *individually indecisive* attributes (in the sense they do not individually define the segment). This can be so since a 'want' is a 'cluster concept' in that not all attributes or elements of the want are required for the want to be satisfied. We err in thinking each consumer within a segment wants exactly the same set of benefits or want-attributes. Recognizing this is so leads us to recognize the importance of the *disjunctive definition* of a market segment which is usually more appropriate than searching for a non-existent conjunctive definition.

A disjunctive definition of a specific market segment consists of a list of attribute-benefits, where subsets (disjuncts) of this list can each define a

segment, catering to a specified group of consumers. A disjunctive definition of a market segment requires the marketer to identify disjuncts (subsets) that can define a segment. If a golf cart is a segment of the motor vehicles market, a subset can either embrace a gas engine or a battery but still be a golf cart. Each disjunct (subset) of a market segment defines a *sufficient* but *not* necessary condition for membership of the segment, acknowledging that different combinations of benefit-attributes can define the same segment, just as something is defined as carbon if it is either a sparkling diamond, slippery graphite or black amorphous soot.

This brings us back to the level at which the segment is defined. Thus if we were to define our segment at the basic segment level (wristwatch) in the previous example, there would be many benefit and customer attributes from which to choose, with many distinctive subsets qualifying as members of the basic wristwatch/buyer segment. This would allow us to keep an eye on broader market considerations but may result in paying too little attention to selecting an appropriate subset to serve.

In every case, a segment, however defined, is interpreted as embracing both:

1. The set of benefit-attributes, if the segment can be defined conjunctively or the many sets of benefit-attributes if the segment can only be defined disjunctively. This is the core of the concept of a market segment but in itself it is barren unless we know who can be induced to buy the set of benefit-attributes. Hence the second part of the definition.
2. A description of the target customer group in terms of their characteristics and demographics to aid in reaching them. If the same buyer shops in several segments of the same market, he or she would be described differently in each segment since target consumer description is tied to a specific segment. In this way we adhere to the rule that segments, like all subclasses of a class, are mutually exclusive. Analysis of a market can lead to either a conjunctive or disjunctive definition of a market segment yet still result in some segments that are empty or at least too artificial to be commercially meaningful. However good the logical analysis, an empirical study of the market is usually needed to identify commercially meaningful segments. This is not to dismiss analysis along the lines described. In fact, it is unfortunately the case that the definitional logic for establishing market segments is seldom made explicit or properly understood. We cannot just think *abstractly* about benefits, demographics, personality types or psychographic lifestyles and, if they make sense, proceed accordingly. Even if benefits are intangible (like brand image), there is a need to see if image messages resonate. In other words, to use the logical positivist distinction, there is a need for both the analytic and the synthetic.

Judgments in Interpretation

Judgment is involved in interpretation and judgments reflect at least partially the values that enter into the weighting of various types of evidence. This is true of managerial judgments and court judgments (Cohen, 1986).[40] This is not to suggest that a person's values determine his or her choices: values typically underdetermine (i.e., do not fully determine) choices. This is not to suggest that the dominant values might not be the search for truth but some degree of bias is likely to creep in. Truth and integrity, like all values, are seldom absolute in that circumstances can force trade-offs. When it comes to deciding fundamental disputes in science, as Jonathan Cohen (1986) says, it is in the nature of fundamental issues that they do not admit of universally acceptable solutions.

Truth Criteria

Truth, if dependent on the perspective adopted, echoes the *coherence theory of truth* where the truth of a proposition relates to its coherence with other beliefs, forming a coherent, systematic whole. And indeed, coherence with existing theory is commonly a basis for the acceptance of new findings in science.[41] The history of science, it is argued, suggests progress is made through the 'persuasive coherence' of the narrative presented rather than through some cumulative demonstrations of correspondence to Reality (Gingerich, 2006). Blanshard (1939) argued for the *coherence theory of truth* on the ground that an ideal system of knowledge is one in which the constituent members are necessarily connected one to another.[42] However, coherence is not a sufficient condition for truth. Yet a hypothesis that does not cohere is not congruent with existing knowledge, so confirmation of predicted consequences is less convincing.

The coherence theory contrasts with the 'correspondence theory of truth' mentioned earlier where a statement is true if it corresponds to Reality. This latter would seem the right way to go until we remind ourselves of the controversy over what constitutes Reality when every reality is tied to a perspective. Stephen Hawking once said he did not demand that a theory correspond to Reality because he didn't know what Reality was.[43]

Coherence of narrative can on occasions be decisive. What more evidence was demanded in the Salem witch trials than a coherence of narrative pointing to guilt? The coherence theory contrasts not only with the correspondence theory of truth but with the *pragmatic theory of truth,* which states that truth is *what works*—on the ground; that any theory found to be satisfactory is in effect true. We might perhaps add even a third criterion of truth, the *performative theory of truth,* which claims any assertion of truth is simply the performative act of agreeing with a given statement. This is a position that has had vogue among postmodernists.

The theory that dominates in the natural sciences is the correspondence theory, supplemented by the coherence theory. With the frustrations that accompany coherence and correspondence theories, the temptation is to fall back on pragmatism, with 'what works' being interpreted as successful prediction. This is the position of that branch of pragmatism known as *instrumentalism*, where validity is tied to successful prediction. It is the fallback position of many journal articles in marketing and social science written in the positivist tradition.

Does successful prediction distinguish science, rather than explanation? Milton Friedman (1953), a Nobel Laureate economist, seems to think so. He endorses the claim that an economic theory's predictions are its vindication and validation; its assumptions are unimportant even if seemingly unsound or untrue.[44] His was a response to those critics who argued that economic theories should be judged by their explanatory power. The Friedman view is that of *instrumentalism,* where success in prediction is all that is needed. But without an explanatory base and an understanding of contextual factors, sticking to the tried and true is the only game in town. And prediction is hazardous when understanding is lacking. Thus when both the UK and the USA applied Friedman's monetarism in the late 1970s, steady growth in the money supply did not, as predicted, prevent harsh recessions. We have argued there are no universal laws in social science that are not of a non-trivial nature because contextual factors can be so important. The same applies to strategies/policies of governments or businesses. Thus deregulation has been the slogan of many governments for some time. In the USA, it certainly worked for the airlines and the trucking industry but deregulation of electricity was a disaster as far as lower prices were concerned. We all have a tendency to fall back on what has worked in the past, following successful rules of the past, unfortunately made obsolete by the realities of the present.

Marketing Science is one journal in marketing that has been accused of subscribing to the Friedman instrumentalist view. *Marketing Science* was set up by Frank M. Bass, John D.C. Little and Donald G. Morrison to become the most cited journal in marketing. The problem with citation is that a very specialized journal will be incestuous in that its authors will cite articles (and perhaps be encouraged to do so) mainly from that journal. This boosts its citation. *Marketing Science* contrasts itself with the *Journal of Marketing Research,* which is viewed as focusing more on statistical methodologies while it sees itself as an outlet for 'creative research applying advanced management science methods to marketing problems'. The present editor has this to say (Shugan, 2006):[45]

> Unfortunately, the tendency exists (without strong and often contentious interventions by the editor) for research that survives the review process to become more narrow, more specialized, less accessible and, perhaps, more dogmatic. . . . However, we must ultimately judge that

> research based on the research findings (substantive or methodological) rather than on the awe-inspiring mathematics, the elegance of the theory, or the wondrous quality of the coveted data. We can make new discoveries with the benefit of new, fantastic, humbling technology or with simple undistorted observations. (Shugan, 2006, p. 552)

Instrumentalism was the name given by John Dewey (1859–1952) to his own version of pragmatism. Instrumentalists claim that theories are simply tools or instruments for organizing descriptions of phenomena and for drawing predictive inferences. While scientific realists generally regard theoretical entities as real so that the theories or hypotheses that incorporate them can be tested as true or false, instrumentalists regard theories and theoretical terms as simply heuristic (rules of thumb) instruments which are effective or ineffective. Friedman argues that the ultimate goal of a positive science is a "theory" which yields valid and meaningful predictions about phenomena not yet observed; that a theory's assumptions should not enter into the assessment of its value—in fact focusing on the truth of assumptions gets in the way of its predictive capacity in that efficient prediction depends on simplifying reality. Friedman's view relegates explanation to rationalizations of successful prediction in the non-Freudian sense of rationalization to mean making up an answer to give the impression the explanatory difficulty has been solved.

Although no interpretation can be proved to be the best possible, we do check interpretations. The better interpretations will square with the evidence (correspondence theory) and cohere with what is already known while minimizing conjecture (coherence theory). Interpretation presupposes the existence of a perspective on the part of the person doing the interpreting so that the perspective is imputed onto what is being interpreted.

Paradigms, Perspectives and Incommensurability

We have said the concept of 'perspective' echoes in the word 'paradigm' as used by Kuhn (1970) in talking about different theoretical and conceptual schemata and the exemplars that mark achievement in a particular science.[46] Relativists view perspectives, as Kuhn regards paradigms, as incommensurable, that is, in the absence of a common vocabulary for translating one perspective into another, communication among those holding different perspectives is impossible. Fay (1996), in response, points out those differences among perspectives or paradigms can only be understood against a background of similarities; that competing paradigms in science must be about the same world and share a sufficient vocabulary and methods of inquiry for them to compete.[47] This is simply saying that scientific paradigms (or perspectives) cannot be *incomparable* but can be *incommensurable* in that we may be unable to translate rival paradigms or perspectives into a common metric or vocabulary. Being incommensurable is something different from paradigms being incomparable.

Although Kuhn rejects the notion there are neutral methods for achieving a grasp of 'true reality', he claims a strong belief in the progress of science even as he dismisses the notion of science getting 'closer to the *truth*'. This has prompted Weinberg (1999), a Nobel Laureate in physics, to comment that, if he agreed with Kuhn's judgment about the progress of science, that science does not offer a cumulative approach to getting nearer to truth, the whole enterprise of science would seem rather irrational (Weinberg, 1999).[48]

Relativism, Skepticism and Historicism

'Perspectivism' is sometimes interpreted as a form of *relativism* which denies the existence of objective standards for establishing truth. This is not the position endorsed here. To avoid such identification, perspectivism is sometimes defined as the 'multiplicity of perspectives' view as different perspectives typically represent different windows from which to view a problem. However, if interpretation is diluted by the notion of perspectivism, it is constrained more by the acceptance of the doctrine of relativism.

Relativism is the doctrine that beliefs and principles are not universally valid across time and cultures but are valid only for some historical period, some social group or the individuals holding them. It would argue that physics today is just one version of reality among others that are equally valid. Some of the most distinguished philosophers mentioned in this book, like Ludwig Wittgenstein, W.V. Quine, Hilary Putnam, Donald Davidson and particularly Thomas Kuhn, have been accused of saying things in support of relativism though all have rejected the label of relativist. This shows how slippery is the concept.

If a scientist's investigations are always made from the standpoint of some perspective, paradigm or conceptual belief system, does this mean that no knowledge claims can be rationally defended as superior to rival claims? If we never view Reality as it really is but simply approach it from a particular conceptual schemata, does this not validate relativism, which claims that no single perspective, not even a scientific one, can be shown to be rationally superior to rival perspectives? According to relativism, 'truth' is dependent on which perspective is adopted; there is no such thing as 'independent' truth that can stand on its own, rising above the perspective from which it arose. If the question arises as to why some perspective is apt to dominate, resort is made to non-rational influences such as the most powerful imposing their own choices on everyone else. It is claimed that even in academia certain groups are in a position to shut out all perspectives but their own. This begs the question as to why they have this power if it is not connected to the evidential support for what they are proposing.

A relativist position in denying there are any universal standards would seem to reflect radical skepticism. But radical skepticism is not concerned with the nature of truth as is relativism but simply denies that knowledge

or rational belief is even possible. What philosophers call methodological skepticism is a way of going about doing philosophy. Thus Descartes (1596–1650), commonly regarded as the father of modern philosophy, was a skeptic. In doubting the material world existed, he argued he himself must exist as the existence of the doubter is certain (cogito, ergo sum: I think, therefore I am, in the sense that my thinking is equivalent to my existing). If we successfully answer the radical skeptic, philosophers argue, we might learn a great deal in the process.

Relativism is associated with *historicism,* which, when applied to society, claims that all cultural generalizations are historico-relative and can only be interpreted and understood in terms of a culture's own development. We would all admit that cultures are indeed relative in some ways in that what may be the right thing to do socially in one culture may not be the right thing to do in another. But cultural relativism, as first expounded by Melville Herskovits (1895–1963), makes a greater claim, namely, that the values and institutions of any culture must be taken to be self-validating. Culture relativism is controversial in anthropology since it leads naturally to the question of whether rationality itself is relative (cognitive rationality). Evolutionary theory is one answer to cultural relativism since cultural relativism implies there is nothing in common between societies that are separated by time and space. This is denied by evolutionary theory.

The most common objection to relativism is that in denying universal standards, it denies its own universal that everything is relative. This is correct—if somewhat a slick answer. Although we are not able to verify universal moral standards by the methods of science, we are typically in a position to show the dysfunctional consequences for society of having no moral standards. Some moral standards, too, can be better defended than others in terms (say) of basic 'needs' for (a) survival, (b) the need to belong, and (c) the need for order and security. As Rapoport (1953) says, there is no point in trying to justify our pursuit of these four invariant needs.[49] (We will not debate whether the 'need to belong' is a need in the usual sense of an absolute requirement but it is important nonetheless.) Similarly, with regard to cultural cognitive relativism, we can point to the consequences, namely, that, if all beliefs are equally acceptable, evidence becomes meaningless.

Putnam (1981) defines cognitive relativism as the claim that there are no standards of truth or rationality that transcend cultural/linguistic communities.[50] He rejects such relativism on the ground it undermines the distinction between a belief's being right and merely seeming to be right. But there are other positions than that of *strong* relativism, though some regard relativism as an all or nothing affair. A 'modest' relativist simply claims that principles and beliefs may be relative to time and place. But this relativism lacks a cutting edge. While popularly adopted to signal open-mindedness and toleration of opposing views, when challenged, the tendency is to move to 'strong' relativism or to 'weak' relativism. In any

case, toleration of differences can be a denial of their importance, while to tolerate all is to teach nothing. In fact, to make the virtue of toleration an absolute virtue is to subordinate other virtues like integrity. Weak relativism claims that some particular beliefs and principles can be shown to be justifiably different for different groups or individuals depending on the circumstances. Weak relativism, on occasion, is defensible since some principles and some beliefs are indeed linked with certain historical periods or places.

Relativism vs. Relativity

Managers, like the rest of us, interpret success relative to some set of standards, as without standards there can be no guidance. This is not relativism but *relativity*. Sometimes the term 'relativity' in the general theory of relativity is interpreted to mean that everything is relative to everything else. But Einstein's theory of relativity is concerned with discovering an *invariant* description of physical phenomena: the term 'relativity' here is profoundly misleading.

Consumers are disappointed relative to their expectations; prices are considered relative to the prices of competitors; a product is considered good or poor relative to what competition is offering and so on. *Expectations* constitute an anchor standard for the consumer. Without standards for evaluations, there is no basis for judgment; without expectations the consumer would have little to be guided by.

Understanding Perspectives Facilitates Understanding Interpretations

If we want to gauge likely consumer interpretations of, say, proposed consumer promotions, it helps to understand the relevant consumer perspectives which means seeing things her way, often best achieved through having had the same relevant experiences. There is a need to give priority to understanding customers and not simply watching competition, as is sometimes asserted. Nonetheless, understanding the consumer is intimately tied to knowing what the competition is offering since this is part of the context for understanding the consumer. It is perceptions of brand image, brand price *relative* to competition and brand availability that will influence behavior. In marketing the aim is to build a brand image that resonates with the target customer group. Even the product class itself has an image. No product illustrates this more than bottled water, which, by projecting an image of purity and health, suggests tap water is less pure and healthy, which in Western societies is seldom true.

Historians and anthropologists commonly regard 'seeing it their way' as crucial to understanding. Thus in history, Edmund Morgan (2004) takes to task another historian who argued 'victims' of witchcraft in early

New England projected onto witches a pre-Oedipal rage against their mothers.[51] He argues that in trying to explain 17th-century New England in Freudian terms, this historian failed to investigate the victims' own understanding of themselves, influenced as it would be by the theology of the devil learned from Calvinism. There is truth in this, though interpreting behavior in history through theory (however modern) may on occasions provide a useful perspective, revealing something beyond the victims' own self-understandings.

In marketing, we should seek consumers' own understanding of themselves as they go about buying (before buying, during buying and after buying), even as we also interpret their behavior though the sensitizing concepts developed in psychology. How people understand themselves can be decisive in how they behave. Self-understanding involves links with personal values so that a self-understanding that says 'I value respect for the environment' can affect brand choices.

Psychological terms used to describe consumers (e.g., being risk-averse) are socially constructed, not names of properties in the same way we say a box is square or this dress is red. We apply psychological descriptors like 'extravert' to ourselves according to beliefs about ourselves, not through any collection of evidential facts. On the other hand, we apply psychological descriptors to others on the basis of our interpretation of what they say and do. Such evidence is never without ambiguity and hence interpretation of the behavior of others is always open to revision.

Favorable Interpretation is Commonly Tied to Liking and Novelty

One major ingredient of an offering with a critical advantage (an advantage that is unique to the seller and perceived as crucial to the purpose for which the offering is being bought) would be for the offering to have a functional novelty and/or an aesthetic novelty, as consumers are in perpetual search for novelty. Consumers attend to and are more apt to remember things that are novel though not too novel so as to make it impossible to absorb: the novelty must be 'minimally counterintuitive'. All that is 'new' is not necessarily novel since novelty has the capacity to intrigue.

The principle that gives coherence and coordinates many consumer purchases is aesthetic liking. To interpret a set of attributes as likable is subjective, though many consumers, brought up under the same cultural influences, can have the same reaction. Novelty also attracts buyers, though novelty is a more objective attribute than esthetic appeal. Perceptions of novelty and aesthetic appeal are important attributes for any new product. Novelty may include variety seeking since variety relates to novelty in that both novelty and variety seeking break the mold. On the other hand, there can be variety without any meaningful choice, which is the current complaint about the many TV channels. Novelty also interconnects with 'fashion', 'wonder', potential for reward, and curiosity. It has been found that infants will turn from anything they are doing to gaze at something novel.

Fashion is fed by the desire for novelty while novelty also relates to the concept of *wonder* as wonder opens the mind to newness. Novelty is tied to the *anticipation of reward*, the potential of surprise, ambiguity and the possibility of excitement, which are antidotes to routine and boredom. There is pleasure in contemplating the novel. All this is important, given marketing seeks to induce the consumer to anticipate/contemplate buying with pleasure. In addition, marketing wants the consumer to buy without reservations, as to buy with reservations makes the buyer susceptible to post-purchase dissonance.

Novelty stimulates *curiosity,* which has the inherent potential of producing new beliefs which, in turn, connect to survival in that beliefs seek to track how the world is. Curiosity in fact can be partially defined as the tendency to seek novelty. Curiosity is exploited in advertising as shown in the *initial* ads for HeadOn, which simply asks the audience to say what it is. HeadOn also got attention in later ads by constant repetition of the unique selling proposition ("Apply Directly to the Forehead") and visibility through a massive advertising campaign. Of course the creators knew the ad would irritate and acknowledged this by introducing at the side a customer who said so but who countered this by saying the product works so well. The assumption is that the *target* audience would accept the irritation for the novelty and convenience of the product. Curiosity lies behind checking our horoscope or dabbling in some other pseudoscience. Fads catch on through their novelty but it is a novelty that fails to have lasting appeal.

Novelty should exhibit a continuity of identity with the past so there is a link between the past and the anticipated future.[52] Interpreting some continuity suggests the notion of a transmission of a pattern from one time or stage to another. The interests of both infants and adults are aroused by happenings that do not differ too much from what is familiar so as to be understandable without demanding too much effort. The link with the past is often crucial because we accept the new only when we have made sense of it in terms of the old: complete discontinuity typically entails the burden of learning new concepts and perhaps a different perspective. Novelty can be too novel (perhaps through complexity) in terms of the individual's level of experience. This is also true of theoretical innovations. Thus Norbert Wiener's cybernetics was superceded by Claude Shannon's theory of communication, which became the basis of today's discipline of 'information theory'. Shannon's theory relied heavily on Wiener's ideas where cybernetics had become a theory of analog processes, but Shannon's elegant theory was based on digital communication and so easier to apply to practical problems.

Interpretation, Awareness, Subliminal Perception and Inattentive Perception

We glibly talk of 'creating awareness' but it is *conscious* awareness that is important. We are aware of many things about us that do not register in consciousness: as we say, 'It just didn't register'. This is particularly so in

watching ads on television. The awareness of an ad can mean very little in terms of the target audience being conscious of what is being put across. But does this matter when it is claimed that subliminal perception evades awareness altogether? Subliminal perception is not in fact perception at all since it refers to the effects of stimuli that are too brief or too weak to be perceived. But because perceptual abilities are not uniform across people but form a normal (bell-shaped) distribution, what may be perceived by one person may not be perceived by another. Subliminal effects are so ephemeral they leave no memory, so that introducing them into advertising is hardly likely to have much of an impact (Greenwald et al., 1996).[53]

Subliminal advertising is commonly confused with *inattentive perception,* which typically accompanies product placements in movies. With inattentive perception there is actual perception which creates enough marginal conscious awareness of the product to affect buying. This was the case when Reese's candies: a product placement in the E.T. film, led to sales subsequently taking off (Cavell, 1998).[54] Sales were stimulated both by the brand's constant visibility in the movie, giving rise to the *repeated exposure effect* leading to familiarity and through familiarity onto liking, as well as the association with a popular movie.

In referring to the repeated exposure effect, the question arises as to how this can be reconciled with 'wear-out' where the impact and effectiveness of an ad declines at very high levels of repetition.[55] It is almost a truism to say that the marginal impact and effectiveness of an ad will diminish with high levels of repetition; just as the pleasurable effect of a good joke or a fine song diminishes if we get too much of either within a short period. Repetition can deaden the emotions and the desire to listen. However, just as we continue to think well of the joke and the song, liking for the brand continues with further familiarity helping cement that liking by making the brand part of our life, even if at the same time we tire of the ad itself. On the other hand, it has been estimated that television advertising returns no more than 32 cents to each dollar spent on TV advertising. Every such study needs to be treated with skepticism because the measurement of returns is always subject to controversy. Some advertisers in repeat, *reminder* ads are now simply showing the opening part of a familiar ad which reduces both costs and wear-out effect.

3 The Interpretive Stance in the Study of Human Behavior

MEANING, SIGNIFICANCE AND EXPRESSIVE BEHAVIOR

Plato in the *Phaedo* is credited with first advocating that human action be explained by *interpreting* it. In contrast, positivists marginalize the role of interpretation in the study of human behavior.

It was Wilhelm Dilthey (1833–1911) who argued that, in the natural sciences, the search was for *explanation* while in the human sciences the search was for *understanding*, the province of *hermeneutics*. He made a sharp distinction between (causal) explanation (*Erklaren*) as applied to the physical sciences and understanding (*Verstehen*) as applied to the humanities: "Nature we explain: psych life we understand". Dilthey pointed out that, for human beings, 'purpose' and 'values' direct their behavior while these terms have no significance for the physical world. For Dilthey, hermeneutic (interpretive) understanding provides the foundation for all the human sciences with verstehen concerned with reconstructing lived experience. Dilthey's assertion is consistent with Michel Maffesoli's (1996) more recent claim that:

> For a positivistic sociology everything is merely a symptom of something else; an interpretive sociology describes lived experience as it is and identifies the goals of the various actors involved'.[1] (Maffesoli, 1996, p. 7)

In the interpretive social sciences, the focus in general is on *meaning*. It is meaning in the sense of *significance* for the individual, not meaning as in cognitive psychology, which is restricted to intentional mental state. Meaning in the sense of 'intention' is another sense of meaning, so the interpretation of meaning in social science can be in terms of significance and/or purpose/intention. Intention is not the same as motive in that the major motive behind 9/11 maybe hatred, while the intention could have been to entrap the American administration into a war.

The search for meaning is always important in interpreting behavior. The notion of something having meaning or significance for the consumer

is conceptually linked to things about which the consumer is concerned and things about which the consumer is concerned are things that arouse the emotions. Happenings that resonate with our values are happenings that support or fail to support the things we value (including the value we place on self-esteem). If the consumer is in an emotional state, this functions like a motivational state in urging action. This does not mean that action inevitably takes place since there can be deterrents that caution forbearance: emotion has to be intense enough to counterbalance the deterrents. The reduction in the number of alternatives considered in consumer decision making is a direct function of the meaning or significance of the alternative offerings for the consumer. Trading off one alternative for another ties to values and emotions, because values largely evolve from past emotional episodes.

Philosopher Charles Taylor's (1987) claims that the search for 'meaning' became urgent with the rise of non-representational painting and music because meaning can be ambiguous in all such cases.[2] Traditional hermeneutics and traditional semiotics (the study of signs) often assumed we were able to recover and decode various meanings by reference to a coding system 'that is impersonal and neutral and universal for the users of the code' (Hodge and Kress 1988).[3] If a universal coding system exists, it has never been documented. The search for meaning is typically the search for meaning in the sense of the significance of things for the agent. If something has high meaning for the agent, we are saying in effect that he or she believes it has significance for his or her wants. Thus we relate meaning to reasons defined as embracing wants and beliefs.

Taylor points out that the function of language is not confined to just re-presenting reality. It has an *expressive* function in that language is used to express feelings. All behavior can be expressive. Expressive behavior is meaningful even though an end in itself. An exemplar of expressive behavior would be the case of a couple, married many years, renewing their marriage vows. Expressive behavior need not be transparent either to the person herself or to the observer. Taylor's 'expressivism' acknowledges that self-understandings are likely to be incomplete and subject to revision. This is because self-understandings at any particular time are unlikely to take account of all aspects of social life that have significance for us. Interpretive methods focus both on goal-seeking (instrumental) behavior and expressive behavior. They are concerned with identifying the meaning (significance) of action and/or intentions and provide reasons for action whether instrumental or expressive. With instrumental reasons, actions are chosen which are considered to be the best means to achieve ends, while with expressive reasons, the action is an end in itself.

There can be both instrumental reasons and expressive reasons for buying a product, as many products have an expressive dimension. This is illustrated by Ness (2003) in her ethnographic study of Philippine tourism where she views tourists as seeking 'liminality', by which she means a

temporary utopia where the tourists assume roles in which they can play at not having to work; being more socially privileged than they really are or taking delight at communing with nature and relating to all things exotic.[4] Liminality is expressive behavior.

Phenomenology in Interpretation

Under the heading of interpretive social sciences come such subdisciplines as *ethnomethodology* and *symbolic interactionism*. These are usually founded on *phenomenology,* which centers on reality as experienced.[5] Those like Holbrook and Hirschman (1982), who put stress on studying the experiential aspects of consumer behavior, see such study as being, as least in spirit, of a phenomenological nature. 'Phenomenology, literally means the study of appearances, though Edmund Husserl (1859–1938), the most influential writer on phenomenology, defined it as the science of the subjective. Phenomenological psychology seeks to understand the meanings of social phenomena from the perspective of the individual since the reality of interest is what people perceive it to be. To give a phenomenological account of (y) is to say how (y) is experienced by some person or group. Phenomenology is always concerned with "reality" as experienced. As part of social science, it is concerned with understanding people's own subjective interpretations of their actions and incorporating them into a picture of the social world. Phenomenology is the subjective viewpoint focusing on how people view the world as opposed to what the objective facts suggest. Today, phenomenology covers any method that explains action in terms of interpreting the meaning of that action for the person taking it. The phenomenological perspective challenges the idea of their being objective knowledge of the *social* world as it views reality as a social creation (O'Shaughnessy, 1992, pp. 162–3):[6]

Phenomenology enters many fields. In psychiatry it aims at understanding the patient's experience from the patient's detailed description of exactly how she feels inside herself (Sims, 1995).[7] Phenomenology is not concerned with the unconscious on the ground that an individual does not have access to it and so cannot describe its contents.

There are various interpretive approaches that vary in the extent of their adherence to phenomenology's focus on reality as experienced. Thus in 'symbolic interactionism' it is assumed that people act towards things on the basis of the 'meaning' (significance) these things have for them; that individuals are primarily conscious, rational beings who are largely in control of their social behavior. But while symbolic interactionism does take some account of a person's subjective experience, phenomenology proper takes this as the central concern. 'Ethnomethodology' is also heavily influenced by phenomenology though its focus is on the *methods* employed by people in making sense of the situations in which they find themselves and how they sustain an orderliness in their dealings with others. It is a

perspective that is indifferent to social norms or structural phenomena like institutions (Layder, 1994).[8]

The term 'hermeneutics' has become an umbrella term for all interpretive approaches in social science though still used in the original sense of being a distinct methodology of interpretation (see Chapter 7). What is distinctive about a full hermeneutics account, as originally envisioned, is that it takes account of context and history. But can interpretation be a distinct method when interpretation is involved throughout the natural sciences? Interpretation does not set the study of human behavior apart from the natural sciences as human reasoning is involved in all systematic thought and reasoning always involves some interpretation.

Interpretation is crucial in all sciences and obvious in the interpretation of scientific findings. In an interview on his book *Science in the Private Interest*, Sheldon Krimsky argues that the privatization of research affects both the way studies are done and the outcome: in privatized research there is a greater tendency, than similar studies by nonprofit sponsors, to favor the financial interests of the sponsors (Peterson, 2003).[9] Scientists working for the tobacco industry were notorious in interpreting findings in a way that did not find cigarettes responsible for health damage to smokers.

What can be said is that certain methods associated with the natural sciences, like experimentation and the other methods used to identify causal variables, are not used in the interpretive social sciences. Interpretive approaches are likely to focus on the search for meaning (significance and/or intent) that positivist social science neglects: understanding generally means understanding the meaning (significance) of the action.

Interpretation aims at 'understanding' to the extent it enables us to "see" how things happen in the social world. Understanding human action can be more important than prediction as accurate prediction does not *necessarily* imply depth of understanding. Atomic chemistry was hugely successful in prediction during the latter half of the 19th century in spite of the fact that the understanding of atoms at that time was wrong.

Understanding can be viewed as a form of explanation, though this is sometimes denied on the ground that no (causal) laws are sought. Positivists claim that understanding does not carry the same logical force as laws in natural sciences which present the most basic perspective of reality. Physics sees the world (including people) as made up of identical material particles with regular properties that obey physical laws; laws that can be described by mathematical equations, yielding accurate predictions about the future and the past. To 'explain' carries the notion of deducing explanations from established laws of human behavior as per the *deductive-nomological model* (discussed later in the text) associated with Hempel (1965)—unfortunately, there are no such laws of human behavior.[10]

In identifying the meaning of action, we typically show its significance in terms of wants and beliefs. As Lyons (2001) says, in reviewing successive theories of mind in psychology, the most useful and informative

explanation of human action will always be because of 'what I believed and wanted'.[11] Gibbons (1987), in reference to interpreting politics, argues that to understand the inter-subjective meanings rooted in social life is a way of explaining why people act in the way they do.[12] To interpret meaning is to search for significance and/or for intent. Leo Bogart (2003) stresses this search for 'meaning' when doing market research.

> The heart of the research process is the encounter with an individual who has something to say. The heart of research is to get that something articulated and to ponder its meaning. (Bogart, 2003, p. ix).[13]

Bogart points out that if someone has something to say, the art of research is to get that something articulated and to ponder its meaning while the research report itself will list the methods used, show the analyses with an interpretation of the meaning or significance of the findings.

Most philosophers endorse the reason-giving explanation of human action where wants, beliefs, and intentions are quoted for understanding and justifying action. Given the contextual factors, actions can often point to intentions but not beliefs and wants. Observing someone's actions does not reveal beliefs and motives, as action alone does not in itself tell us what these are. Thus we may gauge the intentions of the terrorists responsible for 9/11 in New York and 7/7 in London but we cannot be sure of motives and beliefs. This has allowed politicians to talk deceptively of our being attacked because the terrorists hate our freedoms, as if government policies were irrelevant.

It is not just wants/desires and beliefs that are tied to motivation but fantasies and wishes. Velleman (2000) substitutes 'fantasies' for the role of beliefs and 'wishes' for the role of desires when fantasizing.[14] Wishes, unlike wants, are unrestricted as to feasibility—we can just go ahead and wish for anything we like, regardless of whether it is obtainable or whether it exists. As Velleman says, fantasies and wishes can motivate behavior *expressive* of emotion. If consumers fantasize about being celebrities or others, this is not a case of saying, I will behave *as if I am* that celebrity but saying, "I am that celebrity" and accordingly adopt the behavior of the celebrity, e.g., in buying brands associated with the celebrity. Fantasizing about supernatural abilities is according to some psychiatrists a way of surviving a crushing sense of powerlessness. And a great number of people feel powerless, a state of mind supportive of movies with heroes possessing supernatural powers. While fantasizing about being someone else is a way of imagining, Velleman argues that talking to ourselves is *not* imagining conversing with someone else but *wishing* that we were conversing with that someone else.

There is recognition that thought *alone* can generate emotion. Kagan (2006) agrees in pointing out that children experience strong feelings when certain thoughts enter consciousness.[15] It is surprising that this is contested, given we all feel fear if imagining ourselves leaning over the edge of a cliff

or embarrassed by reflecting on some past embarrassing occasion. Advertisements try to get a target audience to just imagine what it would be like to drive this car or whatever to generate the accompanying emotion. Images can generate feelings far more than words and, as Kagan reminds us, this is why the Pentagon does not allow journalists to photograph the returning caskets of those killed in Iraq or elsewhere.

Intentions are not always transparent or deducible from actions taken, particularly in evaluating competitors. A competitor's intentions are more difficult to infer than capabilities and resources. Yet intentions can reveal themselves in intentional movements and declarations: all planning takes time and not all of its manifestations can be hidden. But interpreting a competitor's intentions is never free of bias:

- forcing the evidence to fit preconceptions
- being hostile to evidence at odds with beliefs
- predicting the most feared competitive intentions as a defense in any future postmortem as a way of getting support for a favored strategy

Prediction is not mere forecasting. Prediction makes statements about future events by considering the *effects* of some set of conditions, while forecasting is a statement about the future based on historical extrapolation. No doubt Gordon Brown, when British chancellor of the Exchequer, was extrapolating from past trends when he sold 50% of Britain's gold reserves at $280 an ounce, just after which it surged to $700 an ounce! But the distinction between prediction and forecasting is not that clear in that forecasting by trend extrapolation implicitly makes assumptions that certain conditions will remain constant and that there is some momentum in the trend that will carry it forward to the next period of the forecast. Perhaps, a clearer distinction between the two would be that prediction in science is supported by underlying theory. But what makes prediction and forecasting hazardous in marketing is that consumer beliefs and wants change in line with contextual and environmental factors.

Rex Brown (2006) in his text on decision analysis stresses the need to take account of the context in which decisions are made, a context that includes the existing knowledge a person brings to the decision.[16] Context can make all the difference in how someone responds to an ad. This context dependency undercuts efforts to find universal laws in the social sciences. At the individual level, prediction has to contend with the fact that we are not all tokens of each other, not even in terms of our reaction to drugs. As Catherine Arnst (2005) points out in *Business Week:* 'The Biggest Problem with most major drugs today is that they don't work in anywhere from 25% to 60% of patients'.[17]

There is truth in the saying that all forecasting is a projection of ignorance. Ormerod (2006) argues that the ignominious failure of hedge fund Long Term Capital Management, whose management included Nobel laureates Robert C. Merton and Myron Scholes, was because of its faith in order,

linearity and equilibrium.[18] For him the sheer complexity of today's networks of relationships inevitably gives rise to chaotic outcomes, with winners taking all and myriad losers vanishing. The problem in extrapolating from trends is the prediction of turning points. As one economist's ditty has it: 'A trend is a trend is a trend, but the question is will it bend? Will it alter its course through some unforeseen force and come to a premature end?'.

Prediction of social behavior like buying is helped by (MacIntyre, 1981):[19]

- Statistical regularities that are unlikely to change, e.g., more people catch colds in winter; past weather patterns, etc.
- Stable 'causal' type associations like the level of education and the type of magazine read.
- Social conventions, e.g., the persistence of social conventions like weddings and wearing ties at business.
- Much buying is habitual.

Technological forecasting involves scientists extrapolating from technological achievements to date to likelihoods tomorrow. Technological forecasting has a good record for success since the forecasts are tied to real knowledge about the technology. But the forecasting that gets public attention is the more speculative type. Thus Susan Greenfield (2003), an Oxford neuroscientist, visualizes the future where there is no sharp distinction between the virtual and the real since most of our experiences are molded by Internet technology or smart drugs; our homes will be an extension of our body, with entertainment on tap to match our moods and the environment at home having the protean capability of adapting to our desires. Nanomachines inside our bodies will have the ability to alter our appearance and all our bodily functions will be monitored and likely malfunctions anticipated and prevented. Even clothes will be able to clean themselves.[20] Such speculative futuristic forecasting is impressive for its boldness but nothing else.

If we had taken the forecasts of the 1950s seriously, we would now have robots to do all our domestic chores, meals would be pills (no obesity here) while no one at that time forecast the computer revolution. And this is the problem; we cannot forecast future products we have at present no concept of. Even near the end of the 1950s Thomas Watson of IBM saw the market for commercial computers as being no more than around 50 per year. In any case, interpretation goes hand in glove with whatever predictive or forecasting techniques are undertaken.

Uncertainty

Uncertainty characterizes much of life and business. *Chaos theory* makes the assumption from physics that some degree of uncertainty is an essential characteristic of the motion of all particles (Gleick, 1987).[21] The major point made

is that chaotic mathematical functions are sensitive to initial conditions which can lead to dramatically different results after much iteration. The physics reference is to quantum theory but, on the inner level, quantum theory is as certain as classical (Newtonian) physics: the uncertainty only arises when we endeavor to observe outwardly these inwardly determined entities.

'The uncertainty principle' in quantum theory associated with Werner Heisenberg asserts that you can either know the position of an electron, as it orbits the nuclear core of an atom, or you can know its velocity but it is impossible to know both at once. This is often interpreted as suggesting a limitation on the physicist's ability to make measurements whereas it is really about the inability to *exactly* measure particular pairs of quantities at the same time. Physical systems that operate in accordance with fixed laws do undergo some randomness, which can be amplified, resulting in massive unpredictable change we call 'chaos'. What is important here is that this amplified randomness cannot be avoided by collecting more and more information as more information does not help. The phenomena that are subject to amplified randomness include the weather, fibrillating hearts, ecological relationships and the oscillations of the stars. While the application to marketing seems worth investigating, particles and so on may not be very analogous to what happens in markets. What chaos theory does remind us about is that small causes can have great effects.

Critics regard chaos theory as seeking to undermine the statistical revolution in science by a trying to revive determinism since it claims in effect that purely random measurements in real life are generated by some deterministic set of equations. Salsburg claims there is no evidence that such cause and effects exists.[22] Salsburg (2001) points out that underlying chaos theory is the assumption of determinism, that each initial condition can theoretically be traced as a cause of a final effect. Before the statistical revolution the items dealt with by science were considered to be either the measurements themselves or the actual physical happenings that gave rise to those measurements. After the statistical revolution, the stuff of science became the parameters (e.g., population parameters like the mean and standard deviation) that actually express the distribution of the measurements. It is interesting to note that forgeries of signatures are demonstrated by actually showing that the forged signature is a perfect copy of an authentic signature when no signatures are perfectly alike.

On reason for seeking explanations in marketing is to help predict behavior. For example, if we had a law to the effect that: 'If the price of a product is raised, then sales of that product will decline in proportion', such a law would sustain the following:

- If the price of brand X were to be raised, the sales of the brand would fall in proportion and
- If the price of brand X had been raised in 1992, sales of brand X would have been less than they were in 1992, in proportion to the price increase.

Although we may seek a scientific explanation for greater depth of understanding, a scientific explanation need not be understood by the layperson to be accepted (though it helps). Thus we may accept the explanation of 'global warming' affecting the current climate without understanding the explanation. In fact, physicians may provide us with no explanation of our ills, but we rest content with the label the doctor provides. Features essential to scientific explanation do not in fact necessarily include understanding. Scientific explanations may be expressed in simple formulas that require much background to be properly understood, like Einstein's $E = mc^2$,which expresses the interchangeability of mass and energy.

This formula shows mass (m) to be a frozen type of energy, where the amount of energy (E) produced in the conversion is mass converted (m) multiplied by the speed of light squared (c^2). On this basis a little mass can generate enormous energy: the destruction of Hiroshima involved converting less than an once of matter into energy. When people say they understand some phenomena, they commonly mean they understand there is an explanation of it. A good explanation can remove conflict between beliefs and the phenomena occurring. Thus, as Lipton (1991) says, we know that bats accurately navigate in darkness, which conflicts with our belief that vision is impossible in the dark, but this conflict is solved when we are told about echolocation.[23]

At the highest level, an explanatory system adopted revolves around whether the explanation is to be causal or interpretive. But within these broad categories fall many subdivisions. The various explanatory systems in social science can be viewed as different *paradigms* (or scientific perspectives) that suggest the particular conceptual lens to be adopted for viewing the field. Kuhn's definition of paradigm would not embrace all current applications of the term.[24] Or at least his final definition, since his original discussion of the concept embraced a myriad of possible interpretations. His final definition was to view the core of the concept of a paradigm as the set of exemplars that characterized the science. If an explanatory paradigm is first selected, this restricts what research methods are applicable.

Conceptual Truths Masquerading as Hypotheses

One view that does not receive the attention it deserves is that many so-called 'empirical hypotheses' in social science as well as marketing are simply conceptual truths. A conceptual truth is an analytic statement which is true as a matter of definition: any denial would be a contradiction, just as if we said that a bachelor is a married man. Smedslund, a professor of psychology at the University of Oslo, claims that psychological propositions about *voluntary* behavior (intentional actions), including those applying to emotion, are necessarily true as the relationship between antecedent and consequent is conceptual and not causal.[25]

This is a thesis popularized in *The Idea of a Social Science* (1958) by Peter Winch.[26] Thus to claim that a high credibility (communication) source exercises more influence than a less credible source is a conceptual truth in that, if it were not so, it would mean we are simply mistaken about the communication source being one of high credibility for the target audience. Similarly, it is common to test hypotheses to show that strong arguments are more persuasive than weak ones. Providing we can assume that the strong arguments were *perceived* as strong arguments, the proposition is definitionally true. But many strong arguments in an objective sense are just not perceived as such and this is where the complication arises.

Those who subscribe to the notion that hypotheses in social science are typically conceptual truths, not needing empirical corroboration, tend also to subscribe to the claim that the relationship between reasons and action is conceptual and not causal. Von Wright (1983) is one who stresses the conceptual relationship between reasons and actions. He points out that no law is involved when we talk about predicting action from intention (e.g., intention to buy) so that there is no covering law to be confirmed or refuted.[27] He argues there is only a conceptual connection involved between intention and action. Predictability rests often on assessing conformity to a rule; we predict not so much the action as that people will not change their mind or other things interfere with their intentions. In fact, expressed intention may be no more than an expression of an aspiration. We might view intention as analogous to going into gear in driving, actually taking the action being analogous to pressing the accelerator, which requires intention be transformed into having the 'will' to take the action (McGinn,1982).[28]

Smedslund argues similarly to Winch and Wright but he makes the additional (potentially important) point that psychological propositions about human action (as opposed to involuntary behavior) may have had an empirical origin in evolution but now simply function as absolute givens, restricting what it is intelligible to say. In other words, psychology in respect to human action (voluntary behavior) is embedded in the language. He argues that researchers in psychology are unknowingly influenced by these conceptual meanings and relationships in framing hypotheses, as the more related the terms are conceptually, the more plausible it is that they are related empirically. However, psychologists, in regarding the relationships as something to be established by empirical investigation, are not recognizing that the relationships are simply conceptual, that is, they follow logically from the meanings of the concepts involved. In one article, Smedslund[29] uses Frijda's 'laws of emotion' drawn from the psychological literature to demonstrate their conceptual and non-empirical nature when the concepts are fully explicated.[30]

The same claim can be made for many 'hypotheses' that appear in marketing journals. Thus consider an article by Tax, Brown and Chandrashekaran (1998) in the *Journal of Marketing*.[31] We need first to set out the definition of terms as set out in their talk about 'justice theory', which the

authors claim is valuable in explaining people's reactions to conflict situations. This justice theory turns out to be no more than *how* the concept of justice has been historically (back to the ancient Greeks) interpreted in three major applications:

- *Distributive justice,* whose general principle is that individuals should receive what they deserve. A distinguished treatise on distributive justice is Rawls's (1972) *Theory of Justice,*[32] but the authors do not draw on Rawls but underwrite the view that the dimensions of distributive justice focus on the allocation of *benefits* and *costs* that take account, not just of money loss, but psychic costs or what consumers expect to get or deserve on the basis of their inputs.
- *Legal justice,* where conceptions of formal or procedural fairness are uppermost, that is, the carrying out of the law in accordance with prescribed principles. The authors refer to legal justice, when applied to marketing, as procedural justice defined as the perceived fairness of the means by which ends are accomplished, so conflicts are resolved in ways that encourage the continuation of productive relationships. The benefit is procedural fairness while the corresponding costs are associated with minimizing the cost of achieving access, gaining some control over the disposition in any dispute, and minimizing costs in achieving flexibility, convenience and time taken.
- *Social justice.* This is a contentious issue but, for marketing, social justice is interpreted in the article as interactional justice in social (business) dealings or fairness in the treatment people receive during the enactment of procedures. There are psychic costs arising from poor treatment and psychic benefits arising from fair treatment.

  Tax et al. put forward for testing what they claim to be 'empirical hypotheses' (shown in italics). The comments that follow (not in italics) show these 'empirical hypotheses' are just conceptual truths and not empirical propositions to be corroborated by empirical evidence: *Distributive justice is related positively to satisfaction with complaint handling.* Given the definition of distributive justice, if this was found not to be so, we would look to our measurements and not think in terms of rejecting the proposition since it is a truism. *Procedural justice is related positively to satisfaction with complaint handling.* Again how could it be otherwise? The perceived fairness with which our complaints are handled must relate to satisfaction, unless one prefers unfair treatment to fair treatment! *Interactional justice is related positively to satisfaction with complaint handling.* This can simply be implied from the concept of justice. *Two-way interactions among the three justice components will affect satisfaction with complaint handling.* This will follow providing, as per rational choice theory, we accept that negatives can be set against positives in calculating net benefit. *Satisfaction with*

> *complaint handling is related positively to trust*. The authors define trust as existing when one party has confidence in an exchange partner's reliability. This is definitionally true in that, if the buyer trusts the seller, it implies an expectation about satisfaction. *The effect of dissatisfaction with complaint handling on trust and commitment will become smaller as the prior experiences become more positive and approach zero when prior experience is highly positive*. This is definitionally true in that my dissatisfaction will decrease as my experience with the supplier becomes more positive. *The effect of dissatisfaction with complaint handling on trust and commitment will start from zero and become larger as prior experience becomes more positive*. Experience implies learning and if we learn that things are becoming more positive, it follows dissatisfaction will decrease.

With conceptual truths, the predicates are *deduced* from the meanings attached to the basic proposition. This is why the preceding 'hypotheses' were so easy to deduce, as they follow from the concepts or definitions of the words used. In true scientific propositions, hypotheses about testable consequences are something inferred, not purely logical implications. Many personality questionnaires, asking about behavior from which the person's personality will be deduced, are simply explications of the definitions of assumed personality characteristics. This contrasts with a scientific hypothesis where inferences about likely consequences are made.

What Smedslund and Winch are saying is that psychological propositions in respect to human action are *analytic,* that is, true by analyzing the words used, as opposed to being *synthetic,* needing empirical corroboration. An analytic statement is true by virtue of the meanings or definitions of its component terms. (This implies an analytic statement is one whose denial leads to a contradiction.) Famously, Quine (1966) rejected the analytic-synthetic distinction (statements conceptually or definitionally true and those statements which need empirical verification), denying the dichotomy was *completely* watertight on the ground that no statement is immune to revision in that what might appear to be analytic could turn out to be synthetic.[33] But recently there has been a telling argument against Quine's position (Bonjour, 1998) and for most of us the distinction has great merit.[34]

Interpretation, Bias and Concepts

Differences in perspective can lead to different interpretations as perspectives act as 'lenses' that color outlooks and bias judgment. We always interpret against a background of some perspective. If that perspective is 'theory-driven', not just picked up or inherited, the perspective tends to be sharper and more persuasive. In any case, to persuade another, it helps

to understand the other's current perspective and its grounding. In understanding the perspective of others, there is a need to take account of the emotional ingredient behind the other's adherence to the perspective since emotional grounding makes for inflexibility.

Any perspective gives rise to confirmation bias, whereby relevant facts are ignored or re-described and reinterpreted in a distorted way. Although we may agree that standards of evidence should be raised when the consequences of being wrong are great, this typically does not happen. Generally we go on gathering evidence when the results are not to our liking and cut short the search when the evidence corroborates what we already think or want to believe. (Statistical techniques can sometimes help in this by continuing statistical analysis until we obtain statistically significant findings!)

Kahn (2004) reminds us of how 'hard' evidence has been rejected at many famous junctions in history: that Kaiser Wilhelm's government in 1914 wrongly rejected the evidence that Britain would not remain neutral in the event of Germany violating its treaty obligations by invading Belgium; the Japanese in 1938 stuck to their preconceptions of superiority over the Russians even after badly losing a border clash with them; Russia in 1941 ignored the reports that showed Hitler intended to attack Russia; Hitler in 1944 furiously swept aside the photo mosaic evidence that the Soviet Union had assembled the greatest concentration of artillery of all time; Israeli intelligence stuck to its belief, regardless of the evidence, that Egypt, having lost the 1967 war and having expelled Soviet advisers, would not attack Israel and so on.[35] This is a reminder that sticking to a belief can have little to do with its evidential base. But it should be said that many cases of rejecting hard evidence are complicated by the presence of contrary information at the time. Still there are many cases like those quoted that are pure cases of *confirmation* bias.

It is not at all that obvious that "hard evidence" shifts beliefs when the beliefs are basic to an ideology. Thus hard evidence gathered by Garcia and Koelling (1972) undermined behaviorist learning theory but the findings were dismissed by one prominent learning theorist as "no more likely than birdshit in a cuckoo clock" (quoted by Frank, 1988, p. 149).[36] Marketing managers, when presented with unpalatable marketing research information, can be equally rejecting either because they are on another wavelength (perspective) or the information is just too unpleasant to contemplate. It is not uncommon for the marketing director to agree to the need for a certain type of information but fail to capitalize on it because his or her view of how the market ticks differed from that implicitly assumed in the market research study. This calls for a rule before embarking on a study: always agree on what action will be taken given different research findings.

The opposite of belief is not disbelief (as disbelief is a form of belief itself) but doubt, and people hate to be in a state of doubt and consequently have a double reason for looking for information in support of what they want

to believe. While doubt is the opposite of belief, the opposite of doubt is credulity, which is tied to gullibility. It is rational to have doubts when the evidence is too thin or ambiguous. But doubt does not rule out having hope: consumers often doubt claims made for a product but are still prepared to try it. If we find out what makes people doubt a claim, we are in a good position to undermine the doubt as salespeople do all the time in overcoming objections. If we have no hope we slip into despair and consumers (e.g., in medical matters) will grasp at any straw if it offers hope and avoids despair. As we move away from hope, anxiety arises and anxiety pushes us to reach for services (like that of psychics, astrological readings and so on) to help restore hope. While uncertainty about the future can provide fertile ground for superstition, it also makes hope an all-pressing need.

Perspectives distort evaluations when the perspective is grounded in emotion. We are reminded here of Thouless's story:[37]

> A supporter of Cambridge, looking at a photograph of the Oxford cricket eleven is reported by C.E. Montague to have said: "Look at them! The hang-dog expressions! The narrow, ill-set Mongol eyes! The thin, cruel lips! Prejudice apart, would you like to meet that gang in a quiet place on a dark night?" (Thouless, 1956, p. 135)

Every reader able to recall U.S. presidential election campaigns will have experienced descriptions along the same lines by members of the opposing parties. Political campaigns typically define a rival as best characterized by a series of negative attributes.

Distorted perspectives, however, need not be grounded in emotion, but can arise from ignorance of the relevant concepts for understanding the phenomena. Take, as an example, Humphrey's (1983) two descriptions of the same scene in the British House of Commons:[38]

> Between 16:00 and 18:00 hours on Friday afternoon, men and women on each side of the chamber shouted at each other, threw bits of paper, clapped their hands, stamped their feet, and talked about cod; then, at a signal from an old fellow in a curly wig, everyone got to their feet, and those who had previously been sitting on the right side of the chamber all made their way out through a door marked A Y E, while those who had previously been sitting on the left side all made their way out through a door marked N O E. (Humphrey, 1983, p. 11)

And the second description written by someone with the relevant conceptual apparatus:

> Following Prime Minister's Question Time, there ensued a lively debate on the White-Fish Fisheries Bill; the Speaker called for a vote, whereupon the House divided, and, under the influence of a three-line whip,

> the motion to give the Bill a second reading was carried for the Government. (Humphrey, 1983. p. 12)

As Humphrey says, both these descriptions are perfectly valid descriptions of what occurred but from different perspectives. Neither view disproves the other. Wittgenstein would see it as an illustration of a 'language-game' that only makes sense against a context of understanding parliamentary institutions and practices. Without conceptual understanding, the actions signify nothing of significance. This is not always understood. For example, we have Mintzberg's (1973) rejection of the claim that managers plan, organize, coordinate and control, on the ground that the actions of managers as described by observers suggest otherwise.[39] It was a claim that generated a good deal of publicity. But planning, organizing, coordinating and controlling are concepts based on the purpose served by each managerial activity. Just observing activities would not reveal such categories. We see what we have been taught to look for and Mintzberg's observers simply did not have the concepts for such categorization: no more, no less.

Given that interpretation is universal, what is so special about this renewed interest in it when it comes to the social sciences? What is being claimed is that in-depth interpretation is needed to unlock the meaning of behavior. A positivist approach to social science, which stresses quantification and statistical techniques, typically acts at too abstract a level and as if interpretation were unproblematic and conceptual issues simply boil down to obtaining operational measures of the variables involved. Positivism appears to be hardheaded and the exemplar of rationality, as opposed to the soft subjectivity of the humanities.

Disagreement over interpretation in history can be very strong indeed. Tolstoy (1828–1910) in his *War and Peace* did not view Napoleon as a *causal* factor in the Napoleonic wars since, for him, leaders were simply history's slaves. Carlyle (1795–1881) in his essay *On Heroes* argued the very opposite in claiming that what has been accomplished in the world was due to the leadership of great men. These are very different perspectives with the evidence suggesting both are right on occasions. Sir Herbert Butterfield used the expression the 'Whig interpretation of history' to refer to a perspective on history emanating from a conflict between progress and reaction in which progress in the end is victorious, resulting in ever-increasing prosperity and enlightenment.[40] More specifically, the Whig interpretation of history views civilization as moving towards ever-greater scientific enlightenment, which brings progress in its train. This perspective had a significant influence on the history of science where there is less doubt about the progress of scientific knowledge. But the progress has been uneven. Progress in medicine started in the 19th century with events like the germ theory of disease and antisepsis and later in the 20th century with the discovery of sulfa drugs and penicillin. What impedes progress here is the changing population of diseases in that new diseases like AIDS come along as fresh challenges.

In respect to the United States Constitution, Anthony Lewis (2005) writes:[41]

> That the meaning of the United States Constitution depends on its interpretation by judges is so obvious that professions of shock at the idea are hard to take seriously. The Constitution is couched in highly abstract language that necessitates interpretation and readings of it will be guided by one's perspective of democracy. (Lewis, 2005, p. 5)

Dworkin (2006) has long argued that judges cannot interpret the law without engaging with their own values and conceptions of right and wrong.[42] (This is a strongly held position in hermeneutics.) Value-free judging is just not an option. The law is full of terms and doctrines that, in interpretation, inescapably kindle value judgments, like 'reasonable restraint of trade' and so on, even though past precedents act as constraints to varying degrees. Opposition to Dworkin's view comes from the legal positivists who simply view laws as rules prescribed and enforced by those with the power to do so. But for legal positivism to work properly there would have to be a *materially* complete set of rules (not just a logically complete set of rules) for every case that arises: an impossible goal. Every rule, by definition, embraces all the rules that are not specifically excluded by the rule!

In *The Marketplace of Revolution: How Consumer Politics Shaped American Independence,* Breen seeks to displace what he calls 'the ideological interpretation' of the origins of the American revolution with a social explanation tied to the import of consumer goods from England.[43] Both views can be ably defended, though Breen does not make it clear why one interpretation needs to completely displace the other rather than reinforce the other. As has been emphasized before, interpretations stemming from different perspectives need not rule out each other but can simply amount to different windows on to a problem and hence can supplement each other.

The interest in qualitative (interpretive) research also rests to some extent on the recognition that qualitative aspects of human experience cannot all be addressed by quantitative approaches, like the appreciation of beautiful music, pleasures of social bonding and so on. There is today some disillusionment with positivist dogma in marketing. Human behavior, as part of social life, needs a descriptive richness in interpretation that goes beyond that which can be captured by a set of propositions, tested in a context abstracted from real life. Behavior needs to be contextually situated for full understanding, yet the search for universal 'laws' ignores context. Any psychology that seeks to describe actions divorced from context can never hope to provide an adequate explanatory theory to explain individual cases. Leo Bogart (2003) stresses the importance of context with regard to ads:[44]

> What the advertiser transmits is not what the viewer experiences. What the viewer sees at home is not what the client sees in the viewing room. Commercials are experienced in context. (Bogart, 2003, p. 232)

There are no universal laws in social science and no claims that are universally true. Nicholas Humphrey (1983), an experimental psychologist at Cambridge, words it well:[45]

> There are not, and never will be, Newtonian principles of human behavior. Those academic psychologists who have tried to emulate the method and theory of classical physics—who have tried like Clark Hull in the 1930s to write a latter-day *Principia*—have proved what any layman might have told them at the start: the mountain of human complexity cannot be turned into a molehill of scientific laws. (Humphrey, 1983, p. 7)

McGuire (2000) maintains that those who still seek universal laws find themselves confined to 'testing hypotheses' that are really truisms requiring no investigation to establish their truth, like saying no one likes to be humiliated or that, if I stare at the sky in the street, others will look up also.[46] His alternative to the 'positivist view' is 'perspectivism'. Perspectivism acknowledges there are no laws of social behavior or of intentional action and no hypothesis is perfectly true (as we inevitably misrepresent reality to some extent) even if true enough on occasions. Though McGuire recognizes context moderates against universals being able to explain the individual case, he recommends exploring the pattern of contexts in which a hypothesis does or does not obtain and identifying the reasons why it does or does not. Flyvbjerg (2003) similarly denies the possibility of laws in the social sciences on the grounds that findings are context-dependent.[47]

A change in perspective can completely reverse an interpretation. Edward Gibbon, the 19th-century historian, claimed that, by undermining the ruthless courage of Roman manhood, the Christians were as much responsible as the barbarians for the decline and fall of the Roman Empire. This is not the perspective of Peter Brown (2003), who sees Christianity as a positive force and in no way undermining.[48]

Tim Reid (2003) in the *New York Times,* talking about intelligence and weapons of mass destruction, reports a CIA official as saying about the Pentagon's Office of Special Plans (OSP): "they were so crazed and so far out and so difficult to reason with—as if they were on a mission from God. If it doesn't fit their theory, they didn't want to accept it."[49] If we are to change a perspective, abstract logical reasoning is unlikely to be the way to go as this does not induce people to look at an issue from a different perspective (Toulmin, 1990).[50] People are induced to see a different perspective through, say, the use of narratives that resonate or the imagery that metaphors give. Thus consider the pictorial metaphor of pigs eating your money,

which was the visual metaphor employed by one competitor in describing Comcast, a cable company.

We can never be absolutely sure our theories or models are true, however much they are corroborated. Nor can we be sure that a theory that has failed some test is necessarily untrue. We neither prove nor disprove any theory in any absolute sense. This claim about absolute proof and disproof underpins the doctrine of *fallibilism*, which asserts that there is no certainty: all knowledge is subject to modification and change. Factual knowledge at best can only be probable in that we cannot prove the contrary to be absolutely impossible. There are always potential alternatives for any theory we might regard as true. Experiment is not the answer since in a final analysis we can never be certain of distinguishing cause from coexistence. As Fay (1996) says, getting out models in social science is analogous to mapmaking in that no mapmaker believes there is a unique pre-mapped world waiting to be discovered.[51] This is a very fine analogy.

Interpretive methods are subject to criticism. Those who reject the exclusive focus on interpretive methods argue about the validity of the methodology for developing scientific theory. Others claim that there are often unconscious causes at work, or that objective external causes should always be sought, or that functional analysis should be used to understand capacities for action and so on. Perry's (1984) *Intellectual Life in America*: *A History* notes that the social sciences today are not a coherent movement but a set of alternative approaches to knowledge—with diminishing likelihood that any one approach could be used to disprove the other.[52] Perry goes on to say that, while the individual scholar might feel his choice was the best one, his choice is often a matter of chance, like admiration for a great teacher, social rewards for one style of research and so on. He also points to the willingness of most social scientists to concentrate on some small patch of human experience and cultivate it without ever asking fundamental questions about either their approaches or methodology. Academic marketing is no exception. In interviewing applicants for academic appointments, it is amazing how candidates, imbued with great faith in whatever is the new religion, will ridicule the orthodox paradigm of previous years and push what is now current as the cutting edge of a major breakthrough, when it, too, gets similarly displaced over the years.

An early model for doing qualitative research in the social sciences was 'ethogeny' promoted by Harré and Secord (1973) with inspiration from Erving Goffman's writings. This focuses on how action is made meaningful by those who carry out the action and those who observe the action being carried out.[53] The book undermines the pretensions of positivist approaches to social science and was seminal in making non-positivist research respectable. Harré was a physicist who made his reputation at Oxford writing about the philosophy of science but later became a professor of psychology at Georgetown. However, though the book stimulated research (e.g., Rosser and Harré,1974)[54] and others have found in it support

for developing their own variation (O'Shaughnessy, 1987),[55] the approach is not commonly applied because social scientists still hanker after 'theory' with universal law-like generalizations. Techniques like ethogeny are useful for managers who are not concerned with developing universal laws and we should give it a return visit.

Law-like generalizations are the canon in social science when in fact there are no universal law-like generalizations that are not simply truisms or statistical regularities. As Jerome Kagan (2006) says, after a lifetime in psychology: "We yearn for absolutely true knowledge about human nature, but the best history can produce is beliefs that last a few lifetimes"[56] (Kagan, 2006, p. 117).

This is sometimes denied by sociobiologists like Edward O. Wilson (1998) who claim, for example, that xenophobia is rooted in our (evolutionary) natures, present sex roles are inevitable and that intense competition is part of every society which in turn gives rise to inevitable inequalities.[57] Few psychologists agree that nature is so deterministic of social behavior or even that these are 'laws of nature'. Wilson's view goes along with his aspiration of bringing the sciences and the humanities together, based on his belief that the world can by explained by a small number of natural laws: a reductionist stance that has few adherents.

Statistical generalization, by definition, is unlikely to have direct applicability to the unique situation except as suggesting something to consider. Thus, even if we knew that 90% of new products fail, this particular statistical generalization tells us nothing about the likelihood of our individual product's success: the product may fail or it may not, but the fact that 90% of new products have failed in the past is irrelevant to saying whether an individual product will fail, particularly if the generalization is based on products outside the markets of interest. It simply gives us pause to think.

It is sometimes argued that, because every case is unique, each case must always be considered on its merits. This is the other extreme. As Schauer (2004) points out, no individual is really able to judge a case purely on its merits, as individuals implicitly fall back on some generalizations.[58] What matters is trying to ensure that the generalizations used are non-spurious. Once we accept that all decisions rest on generalizations of one form or anther, we are in a better position to think which are more applicable to the case at hand. Stereotyping, as one form of generalization, is unavoidable. As Schauer says, instead of trying to avoid it, we should concentrate on delineating the best stereotypes we can!

Singularism or Multiplism in Interpretation

A persistent controversy in interpretation is whether a single interpretation should be sought or not. Krausz (1993) labels the two rival positions 'singularism' and 'multiplism' [59] while Nehamas (1981) uses 'critical monism' for singularism and 'critical pluralism' for multiplism.[60] As Krausz says,

those like E.D. Hirsch,[61] adhering to a singularist position, claim to seek a single interpretation that conclusively 'unseats' alternative interpretations. On the other hand, the multiplist argues that, while singularism would be ideal, it is an impossible ideal: competing interpretations may be equally defensible yet incommensurable. No doubt there are occasions where one interpretation 'unseats' all rivals (as we often see in criminal cases) but this is not generally true in life.

There are occasions where a decision about 'betterness' in choosing among products is stymied through incommensurability or indifference. Elster (1999), in his discussion of the concept of incommensurability, distinguishes 'indifference' from 'incommensurability'.[62] If the consumer is indifferent as to whether to buy A or B, a one dollar discount on A would lead her to buy A. 'Indifference' is an important concept for marketers since it explains why the simple addition of a feature (e.g., a global positioning system on a car) can lead to a highly profitable increase in sales. Indifference typically gives rise to 'picking behavior' where choice is random, analogous to picking a cigarette out of a packet of cigarettes. Markets are full of consumers who are indifferent to the various brands on offer so a feature advantage may be all that is needed to swing the sale. Similarly, a consumer, who would otherwise be indifferent as to which brand to buy, buys the brand whose name she recognizes: the name makes a difference. The individuals who win the gold medals at the Olympics only need to be just ahead of rivals to win. It is often the same in business; the winner need not be that far ahead.

If the buyer remains indecisive in spite of the discount, the two brands are incommensurate. Incommensurability implies the absence of a common metric for deciding which is best. Incommensurability does not imply products, models or theories are not comparable but that it is impossible to weight the attributes of the alternatives on a common scale to obtain a conclusive answer. Incommensurability does not mean interpretations cannot be compared. It is always possible to compare competing interpretations even though the comparison may not be sufficient to decide *conclusively* among the rival interpretations. Different cultures may on some level be incommensurable but this does not rule out critical comparisons of cultures, as no culture is entirely unintelligible. Incommensurability just makes the grounds for preference *inconclusive*. It does not mean that the grounds for preference must lead to indecisiveness; being 'inconclusive' is a logical notion, but being 'indecisive' is a psychological notion. In interview, consumers will willingly admit the evidence for preferring brand A to brand B is inconclusive but still do not admit to being indecisive about their final choice. Comparisons imply criteria as a basis for making the comparison.

It was Plato who said that looking for the 'real truth' was always naïve, as we can never know. In any case, two researchers arriving at the same interpretation does not mean they arrived there by the same route. To

favor a particular interpretation does not even imply similarity in criteria employed, no more than the selection of the same brand by two consumers means that they employed the same choice criteria. This is important, as it tends to be forgotten by many marketers who put great emphasis on revealed preference or actual choices made.

Intent and Singularism

As Dennett (2002) says, interpretation often hinges on hypotheses about the intent of the author. If, for example, we question whether the red light on our computer, signaling the battery is running down, means the battery is abnormally running low or just running down in the course of normal operation, we must consult the 'author-of-record'.[63] Intentions have to be made clear if the questions are to be construed in the right way; interpreted as intended. A complaint of students after any examination is that they did not know what the examiner was getting at. This will be true if the student has not studied the required texts! As Sollace Mitchell (1983) says: How can a string of words constitute a text if they cannot be read as having an intentional description? (p. 84).[64] He points out that, if a text is denuded of its intentional character or author intentions are ignored (as postmodernists would have us do), it ceases to be writing because writing is an intentional activity.

Behavior qualifies as action only if it admits of a description involving reference to the agent's intentions. Intention can be crucial in considering guilt or innocence in a court of law. We make a distinction in war between deliberate (intentional) attempts to kill civilians and civilians killed as 'collateral damage'. This can be a dubious distinction when it is known in advance that innocent lives will *inevitably* be lost, just as it would be dubious to claim that soldiers are innocent of torturing prisoners on the ground that the intent was to extract information, not to inflict pain. Fay (1987) accepts that a major task of an interpretive social science is to discover the intentions which people have in doing whatever it is they are doing. Schauer (1991) too stresses the importance of knowing intentions and makes the point that, if interest lies in achieving continuity and consistency in the legal system or any system of rules, we usually need to know the original intent behind the rules. On the other hand, if rules are designed to coordinate social life (as Lewis shows so convincingly[65]), as with traffic rules, the aim must be to determine how the gaps are filled when there is indeterminacy.

Semantic Autonomy of a Text

Meanings in a text go beyond the author's intentions and this needs to be borne in mind in any text interpretation. As Schauer (1991) says, there is the *semantic autonomy* of any language text in the sense that words,

phrases, sentences, paragraphs and so on carry meanings that are independent of the intentions of the author. It is this semantic autonomy of language that evokes ambiguities and creates new meanings and this is a point emphasized by postmodernists.

Ads have semantic autonomy and consumers interpret ads, drawing not just on the literal meaning of words used, but on contextual understandings which have nuances unique to the individual interpreter. Important meanings can be implicit outside the author's intentions though; as Dennett (2002) reminds us, the author's intentions in many texts are transparently clear in the context (e.g., KEEP OFF THE GRASS). On the other hand, Dennett acknowledges that 'artifact' hermeneutics (hermeneutics as applied, say, to paintings and sculptures) are notoriously open to rival interpretations in which the artist may be a very unreliable guide.

An author's intentions cannot always be accurately accessed. This is particularly so if the text is a group creation (e.g., the output of a buying committee) rather than the work of a single individual. When a group of opposing viewpoints seeks to agree on a compromise, the result may be a deliberately vague and ambiguous document. Each may look for meanings outside the author's intentions or where the author's intentions are irrelevant.

The Postmodernist View of Original Intent

For post-structuralists and postmodernists, any attempt to recapture the author's original intention is pointless. This is a crucial thesis for Derrida (1991), who views a text as a material trace cut off from what lay behind it.[66] For Derrida, imaginative freedom requires displacing the dominance of authorial intention. Derrida's *deconstruction* of a text does not seek intentions but whatever the words and statements will support. He views deconstruction as never final: deconstruction is always open to further deconstruction, implying there is no final interpretation.

Derrida's deconstruction shows little concern with meaning in the sense of what is *signified* than with the words themselves as *signifiers* so the *style* of the discourse is revealed. Derrida rightly says that every reading of a text should recognize that what is said is in part dependent on the mode of expression. This is the attraction of deconstruction for marketers, who must necessarily be concerned with mode of expression, as it is not just a matter of what is said but *how* it is said that is often crucial to persuasion. In deconstruction, whatever is signified is just one point in a chain that links one signifier to another signifier, just as a dictionary leads us from one definition to another. The signified gives way to other signifiers and so on ad infinitum. Derrida does not regard this as a license for adopting any interpretation that appeals: a text will not sanction just any reading.

A fundamental criticism of singularism is Quine's (1970) thesis of the 'indeterminacy of translation', which applies to all psychological theories

that rely on the interpretation of verbal behavior as data.[67] Quine attacks the concept of determinate meanings and determinate interpretations on the grounds that researchers can never be absolutely sure their interpretations reflect, say, the structure and meaning of the thought which the speaker intended to communicate. Statements can be interpreted in many different ways depending on purpose and there is no justification for saying one way is the absolute right way.

Quine shares with Derrida the view that no interpretation can be proved to be the correct one. For Quine, all interpretations are *underdetermined* by the evidence, that is, the evidence is never sufficient to completely validate a particular interpretation. If we accept Quine, any hypotheses, tested through the use of questionnaires, cannot be certified as valid testing, as interpretations of questions and replies will vary. For Quine there is no such thing as truth in interpretation. No theory that relies on linguistic evidence, as most theories do in the social sciences, can be given a truth-value, that is, a measure reflecting its probability of being true. No one can demonstrate his or her interpretation is the true one. This is not as damning as it sounds, as no one can be sure in the natural sciences that explanations are absolutely true either.

Questions Having Sense-meaning But Little Referential-Meaning

Questionnaires may ask questions that are only superficially meaningful. Thus voters repeatedly say they would pay more taxes for better services but reject the part that proposes more taxes for better services. This is because 'more taxes', 'better services' are relative terms: until the respondent is made clear as to what is 'more taxes' and the term 'better services' is explicated in a concrete way, the question has sense-meaning but little referential-meaning. When Wilkinson Sword first marketed the stainless steel blade, Gillette was misled by respondents who said they would prefer a blade that gave a 'good shave' to one that lasted longer—again a question that had little referential- meaning . . . what constitutes a 'good shave' versus what constitutes a longer lasting blade? Again it was once popular to report that workers in questionnaires claimed they preferred a 'more interesting job' to 'more money' which, not surprisingly, was not consistent with worker behavior since 'more interesting job' and 'more money' had no specifically agreed referential-meaning.

Many models of buyer behavior are loaded with hypothetical constructs which have sense-meaning but no operational meaning, which is another way of saying they have no referential-meaning. Even when an attempt is made to obtain operational measures of the constructs to establish referential-meanings, the measures frequently capture a different concept than that originally proposed. The result may be lots of little boxes linked with other boxes which claim to be mental processes but really just link a rough set of sense-meanings. The result is misleading boxology, misleading in the sense that it suggests substance where none exists.

Arriving at Better Interpretations

We need to distinguish between *practical* certainty and *logical* certainty. If truth demanded *logical* certainty then nothing is immune from doubt. It is the same with interpretation: there is no logical certainty but commonly there is practical certainty. Krausz (1993) argues that interpretation defies the use of algorithmic rules that ensure correctness and quotes Hilary Putnam (1992) in support.[68] Putnam sums up the current view of the limited extent to which interpretation can be a formal, rule-governed activity.

> We all realize that we cannot hope to mechanize interpretation. The dream of formalizing interpretation is as utopian as the dream of formalizing nonparadigmatic rationality itself. Not only is interpretation a highly informal activity, guided by few, if any, settled rules or methods, but it is one that involves much more than linear propositional reasoning. It involves our imagination, our feelings—in short, our full sensibility. (Putnam, 1992, p. 129)

Rules have certain incompleteness or the subject itself resists rule-like expression. As Krausz (1993) says, a musical score is notation for a performance but is typically incomplete in the sense that it does not cover all aspects of performance, so any score is likely to comply with a whole range of performance practices. He sums up by saying that scores in general underdetermine interpretations and interpretations underdetermine performances, with the term 'underdetermine' used to imply 'cannot completely specify'.

Rule-Governed vs. Rule-Following Behavior

The term 'rule-governed' as applied to behavior may be viewed as (or like) an instruction consciously obeyed and in this sense decides behavior. Interpretation is easy if behavior is rule-governed. But human action in general cannot be said to arise from a conscious application of rules. An alternative view is behavior as rule-following, which suggests simply regularity in behavior in which case behavior describes the rule.

Algorithmic Rules vs. Rule-sensitive Particularism

An *algorithmic* rule is a precisely specified instruction or series of steps for reaching a solution as is typified in doing arithmetic or in the hierarchical sequence of steps in a computer program. But even if detailed rules are laid down, the application of the rules still involves interpretation. Applying algorithmic rules requires training—as witness the extensive training needed to reasonably absorb the algorithms of PMTS (predetermined motion time standards) in industry, even though the rules can be stated on

a postcard. In any case, interpretation in the social sciences presupposes an understanding of how things hang together to form some coherent system, drawing on an overall context. We can look at information to discern a pattern to help understanding or hypotheses generation. This seems to be something more than simply identifying rules.

Following *algorithmic* rules contrasts with *rule-sensitive particularism* that treats rules simply as heuristics or rules of thumb. The consumer uses indices, surrogate indicators or proxies to establish a product's attributes, like that most quoted example of the car door closing neatly as an indicator of car quality. Such indicators act as heuristics in choosing. All intentional action is rule-following even if every situation has unique features. In interpreting behavior of others, we implicitly look for the rules being followed and try to explicate them.

The aim of rules in any organization is to achieve greater definiteness (e.g., in delegating, or achieving uniformity in handling cases) while the aim of fewer rules is to achieve greater flexibility. Both definiteness and flexibility are desirable goals, so a balance has to be struck. As in law, we need to understand the rules by noticing how they are interpreted in practice. To ask someone to apply rules rigidly assumes the rules are such that there are no problems in interpretation. The rigid application of rules may be efficient in minimizing the time taken to reach a decision but cannot always be effective since the reasons lying behind any set of rules are seldom *absolute* reasons that cannot be outweighed by new considerations in a novel context (Schauer, 1991).

4 Interpretation and Concepts

CONCEPTS AND CATEGORIZATION

When we interpret some happening, we categorize it through the use of concepts. Concepts organize reality for us. As Prinz (2002) says, concepts are the cognitive mechanisms by which we categorize and structure the world.[1] Concepts, like the concept of dog or automobile, act as mechanisms to direct classification as concepts are the basis for classification. We apply concepts to carve up the world into classes which are the foundation on which knowledge is built.

The principal condition for progress in marketing is to improve and widen its conceptual base: so many debates reflect conceptual confusion that no amount of technological sophistication will in itself be sufficient. For example, it is conceptually deteriorating to conflate 'confidence' in a supplier with having 'trust' in the supplier. Quantification is premature if the mathematical superstructure lacks an adequate conceptual base since no amount of mathematical manipulation can make up for that poverty.

We can have top-down deductive classification (logical division) where we break down some class into subcategories as we might break a market down into segments or bottom-up inductive classification where we group individual items into classes as we might group individual wants into want-segments. But the basis for classification may *not* be an all-or-nothing affair but a matter of degree, as would be the case in forming segments on the basis of a quality like sweetness where categories would be formed from along a continuum. Forming subcategories (e.g., segments) from along a continuum is *ordination*. Grouping may thus not be a matter of a 'yes' or 'no' decision but a matter of ordering where neat pigeonholes are replaced by reference to spaces of several dimensions. We can also have spectrums forming continuums such as angry to pleased; attract to repel; beautiful to ugly; impartial to biased; trustworthy to unreliable and so on.

Cultural Understanding Mediated by Concepts

We constantly speak of 'concepts': the concept of free trade, the concept of globalization, the concept of a market, the concept of a product life cycle

and so on. If the concept is socially constructed for use within a discipline, it is called a 'construct', like the words 'attitude' or 'self-esteem' are called 'hypothetical constructs' in that they have constructed sense-meaning while also hypothesized to have a mental referent.

A consumer's understanding of a product or anything else is mediated by concepts. Without the relevant concepts, the consumer has limited understanding of the product. This is important, as we can erroneously equate the consumer's knowing the *referential*-meaning of a concept, for example, knowing what a DVD recorder refers to, without having the relevant understanding, for example, of the distinctive features of a DVD recorder. We are all aware of the names of many illnesses but conscious of the fact that a medical practitioner has absorbed more (concepts) about these illnesses and so knows about them in a much deeper way. All this implies we understand and consequently interpret concepts with different degrees of depth.

Concepts were given a renewed significance with the publication of Peter Winch's (1958) book *The Idea of a Social Science* proclaiming how concepts construct our reality and the cultural rules being followed.[2] Thus in saying 'I bought this brand because it is familiar', it is in the concept of 'familiarity' that we find the rule being followed: 'Other things remaining equal, I buy the brand that is most familiar'. Prinz agrees, concepts do indeed structure our reality, as without concepts, there would be no thought. Concepts, for Prinz, are the basic timber of our mental lives. Shutz (1977), like Winch, argues that to understand how someone thinks, we need to explore the concepts he or she uses to describe and structure her environment.[3] There is no perception without conception and this claim is entirely neutral in respect to whether particular perceptions of reality are more rationally defensible than others. Understanding others implies interpreting or seeing things their way and this means grasping the concepts used in expressing their thoughts. It does not mean we necessarily accept their versions of reality. Winch, as a student of Wittgenstein, is right in arguing that to understand others, particularly those in other cultures, we must understand the thought models (perspectives) with which others comprehend the world, and this means understanding the concepts being employed in that perspective. All of this implies that, if we are to interpret what others say, sufficient to understand them, we need to have absorbed the relevant concepts.

Nature of Concepts

Prinz views concepts as the constituents of thought and, as such, play a foundational role in cognition. His book discusses the received views about concepts before setting out his own view. These received views are:

1. The *image* based accounts of concepts, based on the claim that people form images when they think about any category of thing. But not all concepts can be represented by a mental image while some of those that can be are ambiguous. The concept of justice is a case in point.

We have difficulty visualizing justice, which leads us to use symbols such as the blind lady with the scales. Prinz presents evidence demonstrating that only basic level categories can be represented by a single mental image.

2. The *definitionist* thesis that possessing a concept amounts to knowing what conditions have to be satisfied for something to fall under the concept. This is not always easy. Take the word 'emotion'. If we seek a single definition of emotion that describes its essence, an answer will elude us as it describes states and processes that only have a family resemblance. Wittgenstein (as we have seen) quotes the concept of 'games' as an example of their being only a family resemblance as no single 'differentia' defines the word game.
3. *Similarity-based* accounts based on the recognition that people group objects on the basis of similarity judgments. On this view, concepts are typically described as mental representations of some 'prototype', exhibiting the maximum number of typicality features. Prototypes may just be lists of features or, alternatively, features given different weights corresponding to assumed importance. As in segmentation, an object (product/brand) can be compared with a prototype as a basis for classification. Defining a 'basic level concept' as the highest level at which category members still share salient features, the basic level of categorization is that which maximizes both intracategory similarities and intercategory differences. Prinz says this claim accurately predicts that 'car', 'triangle', 'apple' and 'dog' are basic level concepts. But in practice prototypes cannot establish reference (referential-meaning) since they may be created from what may be superficial features. Prototypes do not single out an exact reference and categorization commonly takes place ignoring any prototype similarity. Prototypical features that arise from combining concepts may be something distinctively different from either of the originals. Prinz's example is the carpenter with a Harvard degree being perceived as non-materialistic, when this would not be assumed for carpenters or Harvard graduates when considered singly. When concepts are combined, they contribute their core features, not their prototypes. In trying to capture a central tendency, prototypes may embrace features with no resulting prototype instances among the category members.

   Seeking 'exemplars' rather than prototypes does not resolve the problem. Exemplars of a class are real examples taken to represent the class whereas prototypes are composites of typical attributes. Exemplars, like prototypes, may be images or points in multidimensional space or sets of features, and categorization takes place by comparing the item to be categorized with the sets of stored exemplars. Given the concept of 'large spoon', an exemplar is likely to be a wooden spoon (since large spoons are typically wooden spoons). On the other hand, since 'wooden' is not part of either 'large thing' or 'spoon',

'wooden' would not be part of any prototype of large spoons. When exemplars are used in illuminating a concept, they can be used flexibly according to context, whereas a prototype has to be computed, even though it is easier to think about. Exemplars tend to do better than prototypes when it comes to recognizing generic categories like 'vehicles' and 'clothing', whereas single prototypical representations have difficulty reflecting the typical constituents of broad categories. But exemplars, like prototypes, explain categorization on the basis of judgments of similarity and so have the same failings as the use of prototypes. Exemplars make concept sharing difficult.

4. The *informational atomism* approach to explaining the nature of concepts was pioneered by Jerry Fodor, who argues that all lexical concepts are unstructured symbols (hence the term 'atomism') that get their identity, in part, from embodying information about the environment (hence informational).[4] A symbol is unstructured to Fodor when none of its components are semantically interpretable because the smallest semantically interpretable part is the concept itself. Fodor argues that whether we (e.g., consumers) classify (e.g., segment) according to defining attributes or similarities to prototypes, we will not capture actual decision processes which involve additional analysis, elaboration and inference. People (e.g., consumers) take account not only of the relations among attributes of brands but relations between brands and other things in the world.

For Fodor, concepts (e.g., of a certain product class) are indicators of properties. In this way, an indicator carries information about something else in a law-like way. The number of rings on a tree indicates its age, just as the rising tide implies the moon is rising and so on. On this basis, for two people to have the same concept they must possess the same indicators. Thus two buyers may claim they want the same set of benefits but, by choosing different indicators of benefit attributes, choose different products which demonstrate they do not possess exactly the same product concept. Buyers use indicators to judge all manner of qualities or attributes if they cannot be ascertained from direct observation. There is no guarantee different buyers will use the same indicators to judge the same qualities or attributes. On the other hand, if a product is sold in many stores under the same brand name and all appear tokens of each other, consumers are right to assume they are the same. But some products are sold to a retailer with a specific number which allows the retailer to say he will match any lower price that can be obtained elsewhere—and not fulfill his obligation by showing item numbers are different! A serious objection to informational atomism is that a concept we may be entertaining (the concept of a laptop computer) may be caused by things other than some referent (Dell computer). Fodor gets round this problem of how concepts are acquired by regarding most lexical concepts as innate. This seems somewhat odd when

it comes to concepts of products. Prinz rightly argues that atomists, with their assumption of unstructured mental representations, cannot explain how people categorize.

Concepts as Perceptual Detection Mechanisms and Proxytypes

What does Prinz himself suggest? Prinz labels his approach *concept empiricism,* which borrows something from all the approaches but identifies most with imaginism (including auditory images). Concept empiricism claims that concepts are copies or combinations of copies of perceptual representations. For practical purposes, concepts are perceptual detection mechanisms that mediate between indicators and what we believe is indicated, e.g., Indicators → Concept → Quality. Concepts are mechanisms for classification, usually instantaneous classification without any conscious interpretation. Once an object is encountered and perceptually represented, the representation can be stored in long-term memory. If it is not, recognition is impossible, though this does not mean concepts are picture-like entities that resemble their referents.

Concepts do not necessarily have sharp boundaries. Everything depends on purposes. In fact Kuhn (1962) points out that 'living' scientific concepts are not particularly precise. That said, in marketing there has been a cavalier disregard for conceptual clarity which gives rise to conceptual confusion as when we confuse brand loyalty with buying the brand regularly. We can, of course, define loyalty this way but this stops us from developing a more precise and rich vocabulary for making nice distinctions that further understanding. Scientific terms are not entirely free of ambiguity. Thus the term 'electricity' is a vague term applied to very different phenomena like electric current, electric charge, electrical energy and so on with meaning very tied to context.

Prinz suggests that concepts can be equated with *proxytypes* as they are proxies for the categories they represent. In thinking, we *simulate* the manipulation of real things by manipulating proxytypes in their absence. This is a very different picture of thinking than that presented by cognitive psychology where thinking is viewed as analogous to computing with symbolic representations having a subject-predicate structure, manipulated by logical rules.

Prinz argues *proxytype theory* provides an appealing account of *basic level* categorization, e.g., basic product categories. To the objection that many concepts cannot be identified with perceptually derived representations such as unobservable entities like attitude or intangible concepts like truth or like those in mathematics—none of which we see, hear, smell, taste or touch—Prinz replies that all of these must be amenable to perceptual representation on pain of vacuity. Thus if the indicators of democracy receive their meaning from reliably detecting democracies, then democracies are perceptually detectable. Prinz rejects the rationalist view, often

promoted by cognitive scientists, that the mind is innately equipped with many non-perceptual concepts. But cognitive psychology in borrowing more and more from neuroscience is abandoning this viewpoint since neuroscience makes no such assumption. Prinz rejects as 'absurd' the accusation that empiricists like him claim that *nothing* at all is innate. Something must necessarily be innate; otherwise how could a simple chunk of tissue learn anything at all?

Prinz claims proxytype theory, as a version of concept empiricism, promises to be more valid than any of the other theories discussed. But when not concerned with some overarching theory of concepts but concerned with some specific problem, Prinz admits that it may be more fruitful to be pragmatic and take the approach which is seen to be most useful.

Winning this debate over the nature of concepts is not what is important, but the amount we learn from the debate about categorization is important to a whole host of social science and marketing problems. To repeat what Prinz (2002) says, without concepts there would be no thoughts as concepts are the basis for categorizing whatever we perceive: concepts are the cognitive mechanisms by which we categorize.[5] Every categorization employs concepts to carve up the world into classes and subclasses. Categorization is not just a matter of *sorting,* since sorting is just arranging into first-level classes while categories go on to be a classification system. Categorization in fact may have as its purpose the discovery of more profound similarities among the items in a category. Darwin saw in the classification system of Linnaeus evidence for the theory of common descent. This is part of the argument made for identifying market segments.

Classifications are important, not only for directing thought, but because classification affects how something is treated. Thus to classify someone as a 'terrorist' or a country as part of an 'axis of evil' automatically implies such a person or country is to be hated and eliminated. How things are classified can be important to a government's 'brand image'. Hence the 2004 Economic Report of the President sought to classify jobs in fast food restaurants as manufacturing jobs to hide what was happening to manufacturing but Congress would not agree.

Sense-meanings of Concepts Can Differ

Since the understanding of every concept is tied to experience, the sense-meanings of a concept can differ. Thus we may all have the same referential-meaning for the term 'dog' but the sense-meanings (connotations) attached to the term dog will differ, certainly between cultures. Similarly this is the case with products and brands. None of us may differ in classifying a 'Hummer' as a car but think about it differently and accordingly interpret things differently about the owner.

McGaugh (2003), a neurobiologist, shows how a strong emotional reaction helps ensure an experience is vividly fixed and in the process can

change sense-meanings.[6] What is remembered relates to what concerns us and major concerns always have an affective tone. As we recall an experience, we recall that affective tone, validating the memory's authenticity but in doing so attaching certain emotional sense-meanings to what is recalled. Since the affective tone of the 'same' experience can differ among consumers, concepts associated with that experience can differ in sense-meaning to different people. Or, alternatively, different concepts are associated with that experience by different people. Two consumers may classify an experience as poor service but one may just take the incident 'in their stride' while the other reacts angrily: the first consumer may use concepts like 'sluggish' to describe the service while the second consumer may just speak of the service as 'cavalier'. A service that is provided by a firm with a non-established reputation suffers most from a lapse of service as there is no previous reputation to challenge that experience.

Information Content of a Concept Tied to its Power to Discriminate

Our interpretation of a concept is tied to its information content. Auyang (2001) argues that the *information content* of a concept is a function of its power to discriminate.[7] Thus the information content of the concept of 'convertible' is higher than the concept of a 'car'. This is so because the meaning of a concept depends on the range of entities to which it applies: the smaller the range, the less equivocal the meaning (both referential and sense-meaning). Auyang argues that extending the range of entities to which a concept applies devalues (debases?) the concept as commonly happens with concepts in marketing. We dilute the concept of 'customer' when we apply it to patients and students in that differences between them and customers for consumer goods have to be erased with the information content being reduced. We might also say that we devalue a brand name the more there are brand extensions.

Auyang takes Dennett (1987)[8] to task for extending intentional concepts like beliefs and desires to all manner of artifacts such as talk of lightning *desiring* to strike a particular object; water *desiring* to go downhill; and magnetic needles *believing* that a certain direction is north. Dennett conceived his 'intentional stance' as the perspective typically adopted in undertaking interpretation as we attribute intentional mental states both to ourselves and to others. Dennett contrasts this intentional stance with the *physical stance* of the natural sciences and the *design stance* in describing artifacts. The design stance makes predictions based on knowledge of the system's functional design. The physical stance makes predictions on the basis of the physical state of the system. Dennett argues the concept of 'intentional stance' is helpful in understanding things other than human actions since even with humans it is only 'as if' they possess desires and beliefs. It might be argued in reply that the 'as if' in the case of humans can be defended in that there are criteria for the application of the terms but, in

the case of artifacts, the term 'function' is more appropriate in that artifacts perform functions not actions. Natalie Angier (2007), who writes science articles for the *New York Times,* adopts a similar anthropomorphic stance in seeking to popularize science; for example, she talks of electrons needing some reason to get out of bed in the morning and off the couch in the evening.[9] This caricatures science and is positively misleading.

Dennett is interested in how we have this built-in tendency to ascribe agency to things that are in no way agents, just as we talk of the rain falling or jumping off the roof. Dennett views intentional mental states as 'propositional attitudes' in arguing that to *share* a *belief* that it is Christmas day is to believe in the same proposition. But, in this, he is not following the philosophical concept of propositional attitude. As Bennett and Hacker put it, the belief would not be a proposition (not be *about* something) but simply that it is Christmas day, while there are psychological happenings that are not intentional, not *about something,* such are moods and sensations like pain.[10]

The Role of Concepts in the Social Sciences vs. the Natural Sciences

Interpreting concepts in social science reflects a different reality than in the natural sciences. 'Bacteria' is a man-made label for phenomena that are a real part of nature. In contrast, there is nothing observable in nature that can be called a 'want', a 'belief', 'self-esteem', 'perspective', 'society' or 'culture', though we develop indicators of these concepts to demonstrate it is 'as if' they are really as described. In other words, we have criteria for the application of these terms. Hypothetical constructs, like self-esteem, are assumed (not proved) to reflect a reality that has significance for us, without being directly observable, though it is possible in experiments to see if self-esteem, as measured through questionnaires, can fluctuate when things that are assumed to affect it are changed.

Kagan (2006) talks frankly about the vague generality of psychological concepts (e.g., self-esteem, intelligence, etc.) as opposed to the specificity of terms in natural science.[11] This vague generality brings with it a lack of constancy in interpretation. Terms developed for a limited set of events are borrowed and applied, without modification, to very different phenomena with vagueness and ambiguity arising as a result. Kagan points to the pervasive use of the word 'stress', for example, even though the biological reactions to a physical threat are very different to that which comes about from worrying over a job interview. Hence it is not surprising that different operational measures of the same concept do not show much relationship. The verbal expressions and facial expressions used to interpret emotions by psychologists are not highly correlated with the brain states that are presumed to be their foundations. Kagan claims there is not one example in the history of the social sciences in which any specific measure has turned out to have a single, unambiguous meaning. He reminds us

that personality traits are invariably based on answers to questionnaires and such a restricted source of information is unlikely to reveal the most enlightening set of personality types.

Disagreement among psychologists commonly arises from the same concept being applied to very different phenomena. The word 'aggressive', for example, is used to cover many types of behavior. This leads Kagan to suggest that social scientists should generally reject context-free concepts and to speak in full sentences to embrace the context of the concept. No longer just the single word to represent a concept like 'attitude' but a full statement of concept/context, e.g., 'the middle-class mother's attitude to cloth diapers in the spring of 2006 in the USA". As Kagan says, the belief that contextually unspecified concepts are theoretically useful has not fared well. The attempt to ignore context is tied to the desire to establish universal 'laws' in accordance with methodological monism.

Concepts in social science are not like trees, part of nature, but man-made (social) constructs that may not fit nature. As Kagan says, 'rejection' is a symbolic invention of the mind and not a property of social experience. Alternatively, if the concept is in daily use there is the danger of its referent (referential-meaning) being too broad for scientific purposes. Kagan recommends inventing new words that have unequivocal meaning-in-use rather than falling back on the layperson's language. He notes how physicists invented the new words 'boson' and 'gluon' to describe atomic events to avoid inappropriate connotations. While it is true these terms have no referential-meaning, they retain sense-meaning in that words always come with connotations attached, e.g., boson, unlike gluon, suggests something to do with boats while gluon, unlike boson, conjures up images of sticky things.

Kagan implicitly takes to task researchers who start with a bag of abstract concepts, semantically linked together through sense-meanings, and, if they seem true, construct a coherent semantic argument to support a model without giving referential-meaning to the concepts via operational (empirically represented) measures. This has been a common approach in consumer research, stretching back to what is now regarded as a seminal work in the field, namely, Howard and Sheth's (1968) *The Theory of Buyer Behavior*.[12] Farley and Ring (1970) tested the model providing results consistent with the relationships shown in the Howard-Sheth model, but their operational measures were too remote from the sense-meanings of the Howard-Sheth model. The consistency they achieved internally was the result of the operational measures being conceptually related.[13] It is not enough for the variables in a model to cohere among themselves but to check the model against the real world. There is clarity in the interpretation of the sense-meanings which makes the constructs intelligible but they do not necessarily have any correspondence to the real world.

Kagan recommends proceeding from observational data to appropriate concepts:

> I was critical of concepts that bubbled up from intuition rather than plucked from the red-hot kiln of direct observation. . . . I cannot think of one theoretically important psychological concept originating in intuition, without the support of reliable observations, that survived more than twenty-five years. . . . Psychologists like abstract words—'emotion,' 'memory' and 'learning'—that bury the natural phenomena under a blanket of semantic networks. Too many investigators begin their research with concepts like 'intelligence' or 'reactivity' and look for evidence to prove their existence. (Kagan, 2006, p. 179)

Constructs inferred from direct observations, he argues, are the ones that have proved most fruitful. He refers to Danish physicist Niels Bohr, who just took for granted that the mathematics of quantum theory were correct and then imagined what reality corresponded to the equations. On the other hand, Albert Einstein started with the facts and only then created the mathematics that would explain the experimental evidence. But, as we have seen, Einstein did not always start with the 'facts' as in later life he sought to create his 'unified theory' from reasoning alone.

With regard to Kagan's observation approach, I once followed my wife for a whole year when out shopping in 1972 and recorded before (anticipatory report), during (contemporaneous report), and after buying (retrospective report) what she had to say 'off the back of her head' and in the next 13 years had students do the same with other shoppers and used the same technique in consultancy. (The result was *Why People Buy,* 1986, OUP.) Academics do not typically go out into the field to study the consumer first hand: this is one reason why there is so much silliness said about consumer decision making in the literature. Kagan's observation approach echoes that of Francis Bacon in the late 16th century, who talked of fixing on the facts to avoid the inherent danger of confusing a dream of our imagination for a pattern of the world (Gribbin, 2006).[14] That said, we see that which we are taught to look for, and today, going over the recordings of 1972, in the light of social science sensitizing concepts, I note many things I missed at the time in interpreting the protocol statements taken before, during and after buying.

For Kagan, facts do not speak for themselves but need interpretation through concepts. Yet the promotion of theory, ignoring the facts on the ground, is flawed. Kagan contrasts 'semantic' vs. 'perceptual' representations. He quotes, as an example, the word 'heavy' in discussing semantic representation. 'Heavy', as a *semantic* representation, has branches stemming from nodes for boulders, arcane arguments, and serious plays and so on. Heavy has an opposite ('light') and is part of a hierarchy of concepts ('magnitude' being higher in the hierarchy). It is the actual context that determines which route we go. On the other hand, there is no *perceptual* representation of the word 'heavy', no opposite, and it is not part of any hierarchy. There are only objects with this property. Infants below eight

months have only perceptual knowledge but no semantic concepts, so such a child staring at the divide between sky and sea has a perceptual representation without any semantic component. Many consumers have only a perceptual representation of some feature of a product. Without the semantic representation they not only have less understanding of that feature but are less likely to even notice it. We see what we have been taught to see and this means having the right words for it. Kagan claims that it is the right hemisphere of the brain that plays the more significant role in perceptual matters and the left plays a larger role in semantic matters. If we want our target audience to have both perceptual and semantic representation, we have to educate them about the product.

Kagan places great emphasis on knowing the context. This is not surprising since the reason there are no universal law-like findings in the social sciences is because contexts differ. But what constitutes context in any particular case becomes an issue. In talking about IQ tests, it is race as well as geography. Thus Kagan quotes one popular IQ test which asks: "What should you do to make water boil?" Apparently in certain areas, African-American do not use the phrase 'should you do' in speech and so do not fully understand the question and answer incorrectly. But they do answer correctly if the examiner rephrases the question: "How do you get water to boil?" We might recall Winch here and his admonition to approach a different culture by trying to grasp the concepts embedded in the language of the culture. The same can be said about understanding a subculture or a sub-subculture.

Kagan offers the following five rules in respect to contextualization: (i) scientists restrict their inferences to specific types of people (male or female, young or old, introvert or extravert, anxious or depressed); (ii) specific long term histories (associated with social class, culture, ethnicity); (iii) the immediate context (familiar or unfamiliar, challenging or relaxed); (iv) the season of the year and time of day; (v) source of evidence. This demand by Kagan is overwhelming particularly when we try to measure these contextual factors. We must inevitably have developed criteria for each study to determine the 'relevant' contextual factors. What is relevant needs investigating as it is not something that can be determined a priori. Not surprisingly Kagan sees few of today's de-contextualized concepts surviving the preceding five rules. In any case, disciplines should first focus on the phenomena they wish to understand rather than start with debating meanings of abstract words and ways to measure them.

Identicality

In physics, electrons are indistinguishable, so it could be claimed that an electron's individuality is the species itself. Similarly, if a brand is composed of members that are tokens of each other, we can focus on the individuality of the brand, with no mention of any single brand member. Pesic (2002)

uses the term *identicality* where members of a species have an identity only as instances of their species, without having any attributes that distinguish one individual from another.[15] Unless a brand has identicality, consumers could not be sure of what exactly they are getting in subsequent purchases. Interpretations that identify identicality are basic to branding.

Hypothetical constructs are 'as if' entities used to make certain phenomena intelligible. Sometimes the natural sciences, not just the social sciences, assume certain entities that are later found not to exist, as witness the belief in the 'ether' filling empty space. It was the Michelson-Morley experiment that questioned its existence. But quantum mechanics was to show later that that empty space was not absolutely empty! Many eminent physicists like Ernst Mach (1838–1916) once believed that 'atoms' were just convenient fictions, but doubters were finally persuaded of their existence by the Brownian motion studies. Now we believe that all matter is made of atoms.

Interpreting Action Presupposes Understanding the Concept under Which the Action Falls

Interpreting an action presupposes first and foremost an understanding of the concept under which the action falls. If someone lacks the concept of "shopping", it is conceptually impossible to shop or describe an act as shopping since what counts as "shopping" is determined by the rules governing the use of the concept and not by the attributes of the movements themselves. We absorb the implicit rules that allow us to say that some movement counts as shopping. We cannot identify which movements are what types of action without understanding the social rules and institutions within which the actions take place. This echoes the Wittgenstein concept of language game. As Hartnack (1972)[16] says:

> It is from the behavior a person displays that I am able to infer what kind of act he is performing. I observe that he is walking and I infer that he is taking a walk (and not just going to the grocer's). I observe that he is looking at an open book and that his eyes are moving in a special way, and I infer that he is reading a book (and not just heeding the kinesthetic sensations caused by the movements of the eyes). . . . It is only because I already understand the language of acts that I am able to infer an act from a particular instance of behavior. Behavior is a necessary but not a sufficient condition for inferring another person's acts. (Harnack, 1972, p. 111.)

Hartnack uses the word 'infer' but 'interpret' would be more correct since some conjecture enters into his observations. In looking at the quote as involving interpretation, we see the role of concepts in interpretation.

A problem in market research is the inability of respondents to talk about product aspects covering the concepts of taste, smell, touch or shape.

This is because the 'properties' of taste, smell, touch and feel are not properties at all and cannot be described as if they were. Advertisers try to get over the problem by showing the feelings people have when consuming the product.

Inability to Fully Capture Sense-meanings in Operational Measures and the Concept of 'Surplus Value'

We have made a distinction between referential-meaning (denotation) and sense-meaning (connotation). Not all the consumer's thoughts about a product are captured by pointing to the product but sense-meaning is verbally more elusive than referential-meaning. This fact is particularly important when we try to obtain an operational measure of a concept, as the measure is unlikely to capture all sense-meaning of the concept. There is no operational measure of any mental construct that fully captures all of its sense-meaning. Whenever we use an operational measure (a measure that captures observable indicators of the concept), there is a danger of other operational measures capturing a different assemblage of sense-meanings. The result is that all social science concepts have 'surplus value' in that operational sense-meaning measures do not exhaust the entire concept's content. Hence the advice: we need to use several operational measures.

We have noted that the same referent may refer to different concepts, just as 'the market' can refer to the two different concepts: 'the market *in*' and 'the market *for*'. These terms have different sense-meanings. 'The market in' coffee (say) refers to the market in the sense of the network of institutions, like wholesalers and brokers, dealing in coffee. On the other hand, when we speak of the 'market for' coffee it refers to the demand, within some territorial areas, for those products that serve the same purpose for the buyer.

In thinking of how buyers segment a market, some academics in marketing quote the buyer's use of prototypes and exemplars. But, as already pointed out, some psychologists reject this and support what has been called the 'theory-theory' view, producing evidence to show that people bring much more knowledge to bear in categorization than prototype and exemplar theories recognize. They show that concepts embody a wealth of beliefs about causal mechanisms, functions, hidden features and this knowledge needs to be tapped to understand consumer categorization. The theory-theory view admits that categorization can sometimes be based on superficial similarities, but those beliefs about hidden essences and causal relations influence weighting and feature selection. The theory-theory view eschews any segmentation that does not incorporate the customer's perceptions.

We made a distinction between 'natural kinds' such as animals and trees and 'artifacts' like manufactured products. Superficial changes do not change the categorization of natural kinds, but categorization of artifacts

changes as functions change—as when a product is repositioned in the market. This is not entirely true, however, in that evolutionary classifications of animals (cladistic classification) can change categorizations.

The Concept of Similarity and Interpretation

The concept of similarity is important for categorization and particularly important for segmenting a market. Yet similarity, as Goodman (1972) reminds us, is not a quality of things in themselves: similarity is relative, variable and culture-dependent.[17] Thus we can interpret Marxism in terms of its similarity to Christianity in that it has a soul (class consciousness), a chosen people (the proletariat), has congregations (comrades), has sinners (capitalists), has transfigurations (the Revolution) and has paradise (the classless society).[18] What one consumer takes to be similar properties might only haphazardly correspond to what is taken to be similar by other consumers since everything depends on a person's frame of reference or perspective. It is this frame of reference that distinguishes attributes that will be treated as similar. But much depends on purposes in that a biologist might classify humans and apes as similar but not someone marketing clothing.

Perceptual maps, employed in 'market structure analysis', show the position of various brands in a market relative to the attribute dimensions which interest the consumer. The relative position of the brands is based on consumer interpretations of the degree of *similarity* and *dissimilarity*. In showing how the brands are related in the consumer's mind, there is generally a reliance on how consumers compare the similarity of different brands on each of their attributes. Analysts identify the dimensions of most interest to the consumer by asking consumers how they evaluate brands and, via factor analysis, reduce the dimensions to just two factors. The consumer then rates the rival brands on the two dimensions for positioning on the map. Alternatively, consumers may move the brands about on a map until satisfied that the relative positions of the brands represent the respondents' *perceptions* of relative similarity. Just a map is given, without the axis being given names, with respondents simply asked to position the brands in the map according to perceptions of similarity. Later an attempt is made to identify the axis attribute dimensions since they are needed to give real substance to the map. There is the assumption that the closer the positioning of two brands on the map, the more intense is the competition between them because closeness is directly tied to perceived similarity and similarity to the likelihood of substitution. But closeness does not necessarily imply likelihood of substitution as sometimes the consumer prefers to forgo buying the product altogether. Thus one woman in talking during shopping refused any substitute yogurt for her favorite Dannon yogurt.

Nelson Goodman (1969), in an article entitled *The Seven Strictures on Similarity,* was an early pioneer in discussing the problems involved in gauging

similarity.[19] In seeking to identify the dimensions of interest, the tendency is to list the shared attributes of the rival brands that might enter into evaluation. This seems reasonable and in line with Medin (1989), who argues that judgments of similarity between items increase as a function of the number of attributes they share and decreases as a function of mismatching or distinctive attributes.[20] But this is simplistic. As Aronson et al. (1994) say, interpretation of similarity for practical purposes (e.g., marketing purposes) cannot be determined purely in terms of the number of matches of attributes among, say, rival brands.[21] This is true even if similarity, viewed as a function of attributes held in common, weighted for salience or importance, is the definition favored by Tversky (1977).[22] Tversky seems to assume that the problem of selecting similar features is unproblematic, which it is not. Any two brands have an *infinite* number of features in common that could be used in evaluation—if we think imaginatively enough. As Aronson et al. show, the key lies in determining what attributes are relevant for the purpose at hand. Simply using shared similarity as the sole criterion for grouping can lead to groupings where members of the group may not have any *relevant* attributes at all in common for the purpose at hand. This is made clear by Murphy and Medin (1985), who point out that even plums and lawnmowers have infinite features in common.[23]

Another problem in interpreting similarities is illustrated by the case of a Portland, Oregon, lawyer accused of being implicated in the Madrid 2004 attack by terrorists. In detecting similarities, the FBI had gone on to interpret fingerprint similarities that were just not there, illustrating how easy it is to see what we expect to see. What are needed are empirical facts to establish how brands *actually* interrelate in the market. Such facts are needed to identify what attributes are to be counted as relevant for judgments of similarity when similarity is tied to purpose, in marketing, the purpose of gauging relative competitive postures. It is common to assume we can short-circuit facts about the market. Theodore Levitt (1960) is a case in point when, in a classic article, he advocated defining a business in terms of the generic need for which the firm catered as *the* way to define the firm's competition.[24] The trouble is that products can appear to serve the same generic need or function without being in competition. Thus sundials and watches serve the same generic need to measure time but they are not in the same market. The reply, that the primary function of a sundial is ornamental and not to measure time, implicitly concedes the need to fall back on collected facts about the market. The competitive arena is not to be identified by armchair reflection on the generic need served but on empirical data collected on the market. Similarly, competitive brand clusters cannot be satisfactorily defined by any listing by consumers of attributes reflecting similarity. Nor does the solution lie in merely letting consumers position brands on the map (though this is helpful) on the assumption that this is how they actually perceive things.

There is evidence from psycholinguistics that people often categorize on the basis of prototype or exemplars without resort to the individual

comparison of attributes (Gibbs, 1994).[25] Thus if asked to classify birds, people think first of a prototype bird (e.g., a blackbird) and on this basis are unlikely to classify a kiwi as a bird, as it has no wings. A layperson's classifications are not relevant to zoologists with their reliance on *cladistic* clustering algorithms that draw on evolutionary history. The layman does not possess the scientific concept of a bird for organizing into interwoven patterns of similarity and dissimilarity. They have a prototype in mind and judge similarity using this as a base. Or they may think in terms of exemplars. Exemplars, as opposed to prototypes, are actual examples (not composites like prototypes) that take account of context recognizing this can alter classification. Positioning brands on a map in relation to some consumer prototype or exemplar may be far removed from groupings that mirror perceived competitive sets by the consumer.

We need to research facts about the actual competitive sets in the market as perceived by consumers and the firm, knowing these competitive sets move back to attributes not vice versa. We would then quickly realize that competitive sets are not fixed but vary with context. Two brands may be close competitors on one use-occasion but not on another use-occasion. As Tversky (1977) points out, similarity cannot be assumed to be symmetrical in that the statement X is like Y does not entail Y is like X.[26] This means that the consumer may see *Pepsi Lite* as similar to *Diet Coca-Cola* but not see *Diet Coca-Cola* as similar to *Pepsi Lite*. In such a case, the consumer may not buy *Pepsi Lite* when *Coca-Cola* is unavailable (preferring not to buy at all) but buy *Coca-Cola* when *Pepsi Lite* is unavailable. The mind may interpret or infer what types of sets are likely but only research will give us the actual relevant sets.

Are we then saying that there can be no recognition of similarity by the marketer without investigation of market facts? Not quite since, according to the gestalt principle of similarity, visual items that are like each other in respect to form, size, color, or direction are perceived as forming a whole based on similarity among the parts. This would certainly seem to give substance to consumer groupings. However, such gestalt perceptions of similarity may or may not serve any particular purpose for marketing as they are not tied to buying goals. It is only by looking at the way competitive activity is organized and takes place in the market that we are properly able to identify relevant similarities. As Griffiths (1997) says, there is no such thing as overall similarity, only similarity in relation to the particular set of attributes, so the selection of relevant attributes is all important and this requires empirical investigation in the market itself.[27]

Reality as Conceptually Described

No "reality" is conceivable except through the perspectives we have adopted. Two scientists (one an 18th-century biologist and one living today) with different conceptual frameworks will interpret reality (say, a

slide with bacteria on it) in different ways. Science is always mediated by theoretical frameworks, so no sharp distinction can be drawn between theory and observation: scientific observation directed by theory is theory-impregnated. However, this does not mean that all observation is theory-laden as commonly claimed. Observation is concept-laden but this does not imply being always theory-laden. Bennett and Hacker (2003) point out that psychological concepts are not concepts of unobservable entities like viruses nor concepts of theoretical entities like mesons or quarks, as they are not concepts of *entities* at all.[28] Psychological concepts such as beliefs, hopes, fears, expectations are simply abstractions from believings, hopings, fearings, expectings and so on.

Quine, who first argued that what we consider a 'fact' depends on the theories we hold, is an empiricist who denies his position is one of relativism. Taken to extreme, the claim that there are no facts independent of theory does represent a relativist position but only in the sense that "facts" are relative to the theory proposed. This species of relativism is defended on a number of grounds.

- Facts are entirely conceptual, arising from concepts tied to 'theory' or one's perspective. Thus we are only able to label an activity shopping, bidding, choosing, and so on because we understand the concepts of shopping, bidding, choosing etc. Different explanatory systems in psychology and sociology employ different concepts for classifying and this can give rise to different interpretations and explanations of behavior.
- Facts in science are theory-loaded, though science is also fact-correcting in that a new theory can and often does deny the facts assumed in the theories it displaces (e.g., the denial of facts, for example, like phlogiston being given off by burning).
- There are no invariant facts on which science builds an independent foundation for knowledge. Correspondence rules or operational definitions of concepts (constructs), like attitude, always remain hypotheses about the relationship of observational measures to theoretical constructs. Thus any attitude measure is tied to whatever theoretical construct of attitude is adopted; if different researchers hold different conceptualizations of attitude, their measures will reflect this. But it is just not true that different operational measures necessarily imply different concepts. When scientists use different tests for detecting, say, the presence of electrons, this does not imply they have different concepts of the electron. Everyone accepts, for example, that the electron is an elementary particle in that it cannot be broken down into smaller particles. The problem, though, is more acute when a social science construct is vague and so not easy to identify. This is the case with 'emotional intelligence' (EI), which refers to the ability to identify, express, understand and assimilate our own emotions and the emotions of others into our

thinking. But as Mathews et al. (2002) point out, the scientific evidence for a clearly identified construct of EI is sparse, though this has not prevented the most extravagant claims being made for EI.[29]

- Experiencing is always experiencing in terms of the conceptual structures already absorbed. Thus consumers in the U.S. watching TV will interpret and experience the event differently from someone elsewhere who has never previously seen TV.
- Is observation always biased towards hypothesis confirmation? While accepting that observation is typically theory or concept-loaded and theoretical concepts direct what is perceived, traditionalists argue that it does not follow from this that scientific observation is biased toward hypothesis confirmation. This is true. But this misses the thrust of the criticism, which is that theory directs attention toward a certain type of explanation rather than considering rival explanations based on other frameworks. In other words, systems of psychology and sociology seek solutions that cohere with their basic explanatory system, perspective or paradigm.

Pluralistic Approach to Testing

What some critics argue for is a pluralistic approach to testing in science that embraces:

(a) An *interpretive* theory that provides the so-called facts;
(b) An *explanatory* theory that seeks to explain the facts.

There is the recognition that what passes as a fact is concept-dependent and all facts are interpreted facts in the light of the concepts embodied in the perspective adopted. The problem for the scientist lies in reconciling inconsistencies between the explanatory theory and the interpretive theory that provides the so-called facts. Those adopting this view argue that we cannot just regard 'facts' as unproblematic and go on to refute hypotheses considered to be in conflict with the facts. There is a need to give more attention to what are considered the facts.

Analytic Philosophy and Action Concepts

Fay (1996) sums up the contribution of analytic philosophy's *theory of action* to interpretive approaches:[30]

1. There is the recognition that most of the vocabulary of social science is comprised of 'action' concepts and the theory of action makes a contribution to interpretive social science by examining the logical implications of employing this class of action concepts

2. Philosophy's theory of action constitutes a source of conceptual clarity for such terms as wants, beliefs, intentions and so on: action concepts are doings, not just happenings, and have an explanation in terms of concepts like values, wants, beliefs, decisions and intentions.
3. The criteria for applying action concepts involve more than looking at physical movements. To say someone is shopping goes much beyond looking at physical movements. What counts as shopping, as described earlier, depends on the socially constructed and shared rules of society: descriptions of actions to be intelligible are always tied to social norms and practices.

Analytic philosophy is pre-eminently concerned with conceptual analysis where the focus is on meaning, usually in the Wittgenstein notion of meaning-in-use. There is a notion that our ordinary language carries the accrued wisdom of the past and conceptual clarity is achieved by applying the network of fine distinctions already embodied in the language. There is a need to examine how words are used, as words are often used in ways that seem correct but actually make no sense. Analytic philosophy together with linguistic philosophy has forebears in logical positivism, though few today would recognize that ancestry. John Searle, a student of J.L. Austin, was the American leader in the field, though in his recent writings he has moved to considering the mental realm as more fundamental.[31]

The Concept of Intentional Action

A wink (an intentional action) is not the same as the concept of a blink (an involuntary movement), even if they cannot be distinguished physically. Intentional action is always purposive behavior, which is distinguished from mere reactive behavior in that intentional action is reflectively conscious enough to discount what is not relevant to purpose. We talk of *intentional* action since not all actions are intentional even though they may not be involuntary movements. Thus I cannot help but read print material on a billboard or on the TV screen.[32] This is neither intentional nor involuntary movement and is one of the reasons for using print in TV advertising, since we may refrain from listening but we cannot help reading. Voluntary action is *not* always intentional.

The Concept of Truth: Seeking Truth and Fuzzy Logic

It is acknowledged that no interpretation can be demonstrated as the true one. But interpretation in social science tries to track truth, as do scientists generally. Plato held that seeking 'real truth' was naïve. Many in history, like Montaigne (1533–1592), had doubts about the power of reason to reach the truth. On the beams of Montaigne's study was written: 'all that is certain is that nothing is certain' (Burke, 1994).[33] As Joanna Overing

(1997) says, it is difficult to reconcile our thirst for the 'really real' with the fact that most of our existence is expressed through 'the really made up', since social life is a socially constructed life.[34]

Bernard Williams (2002), in his usual subtle way, points out that the virtues that go with a passion for truth are accuracy and sincerity and those who deny that truth is a useful, coherent or a defensible concept risk losing these important virtues and with that loss comes a breakdown of all intellectual activities.[35] He reminds us that there are indeed plain truths, like Paris is in France, and that all beliefs intrinsically aim at truth in that they aim to tell us what the world is like. It may well be that we do not know when we have arrived at the truth but, by eliminating obvious errors in reasoning, most people feel they at least are on the right path.

The sharp distinction between truthhood and falsity is being challenged by 'fuzzy logic' (Negoita, 1985).[36] Fuzzy logic accepts that between the poles of true and false, there may be an infinite number of possibilities. This avoids to an extent the false precision of saying something is either true or false (however emotionally satisfying). With fuzzy logic, things can be sort of true or only partially false with a truth value of 0.5 meaning the statement is half-true and so on. While academic statisticians worry over achieving precision and accuracy, it is fuzzy logic that allows us to produce computer-generated fuzzy systems.

5 Interpretation of Effects (Causes)

CAUSAL MODELS

This chapter is on the interpretation of effects for which causes are sought. A broader understanding of people is made possible by the investigation of causes. As Fay (1987) says, interpretive theory will not serve all our purposes. This is because we are often interested in how various causal factors contribute to the rise of certain meanings for the individual and also because there can be unintended consequences caused by our actions of which we are unaware. Fay argues that self-understandings and actions can be at variance while interpretive procedures have failed to come to grips with social change and structural conflict in society.[1]

In testing some causal model, we impute the model onto the data to ascertain whether the causal model is consistent with the pattern of relationships found among the variables of interest. But in most cases we are not testing any model but simply seeking the cause(s) of some event. This has more in common with abduction, discussed in the next chapter, than with imputing a model onto data to judge applicability. In fact, a good deal of the material in this chapter is relevant to abduction, though abduction is not confined to causes.

Not just scientists but laypersons interpret certain events as *effects* that call for investigation as to their *cause*. Not everyone feels content with saying 'stuff happens'! We all want to know what caused the lights to fail, the plumbing not to work and the cause of our illness. What we generally understand by a scientific explanation is an explanation in causal terms, an explanation that identifies the mechanism that operates as a forcing variable in bringing about the effect. If we are concerned with the consequences of our actions, we are concerned with what actions are likely to cause (bring about) what consequences. Common sense tells us that if we are to intervene in bringing about changes in behavior, it helps to investigate the causes of that behavior.

Cause in Statistics

Traditionally, statistics has downplayed talk about causation as a too theory-loaded term but employs terms like determine, bring about, give

rise to and so on that implicitly suggest causation or contributory factors to causing some effect. Inevitably so, since explaining why something has occurred typically involves the notion of causality. Perhaps eschewing the term 'cause' has something to do with the notion of cause implying inevitability or, for academics, simply the ambiguity surrounding the term.

Structural equation models (SEM) are one approach in statistics to causal analysis. These express the relations among exogenous and endogenous variables. *Endogenous* variables are those which form an inherent part of the system while *exogenous* variables are those that impinge on the system from outside that system. Thus price and demand in an economic model are endogenous, while government policy would be an exogenous variable. It is not uncommon for one variate to be endogenous in one model while exogenous in another. (While a variable is simply any quantity that varies, a variate is a quantity which may take any of the values of a specified set with a certain relative frequency or probability.) In spite of its seeming potential, social scientists and marketing academics are held back from using structural equation models because of the restricting assumptions tied to their use. There is also confusion over the nature of cause. In any case, there is always the need to ensure that so-called causal relationships are not simply conceptual truths (e.g., a high credibility source causes more change in opinion than a low credibility source). There is also the matter of stability across contexts in that findings can be specific to a certain context.

Any meaningful manipulation of variables to bring about desired effects presupposes some implicit or explicit theory about what causes what among the relationships of interest. But any supportable scientific belief in X causing the effect Y is only tenable against a background theory as to why this might be so. This theory, or some implied model from the theory, determines what data are relevant and what methods of analysis to use. Analysis aims to test whether the data are consistent with the theory or model. But this alone will not do, since many rival causal models or theories can be consistent with the same data. As Pedhazur (1997) says:[2]

> It is possible for competing causal models to be consistent with the same data. Consider, for example, the following competing models:
>
> (1) $X > Y > Z$;
>
> (2) $X < Y > Z$.
>
> According to the first model, X affects Y, which in turn affects Z. The second model, on the other hand, indicates that Y affects both X and Z. As I will show, both models may be consistent with correlations among the three variables. The decision as to which of them is more tenable rests not on the data but on the theory from which the causal model was generated in the first place. (Pedhazur, 1997, p. 769)

In practice the identification of causal factors in complex cases usually arises from bringing together the results of many individually flawed studies. Not every problem involving cause can be solved by randomized experimental

designs as not all problems lend themselves to such an approach. In any case, even in experiments, we cannot be absolutely sure we are not confusing cause with mere coexistence. On the other hand, it is not true that a faulty experimental design cannot be modified during the experiment. The technique called *sequential analysis* permits the researcher to recognize what modifications can be made and what modifications cannot be made.

Lipton (1991) raises three objections to any causal model of explanation.[3] *First*, we have no analysis of causation that is noncontroversial. This is true, though controversies over the exact nature of cause tend not to be a major stumbling block. *Second*, there are many non-causal explanations that possess explanatory depth. Mathematical explanations are never causal, while philosophers in their explanations seldom resort to causal explanation. *Third*, the causal model is weak in that it seldom provides an account of the selectivity criteria used to select the causally relevant factors. Whatever cause we might select, we could ask for its cause and so on to an ever receding (futile) search for a first cause. This is so, though most information on the causal history of a phenomenon is not relevant to explaining what we want explained. In fact, we do not so much explain events as *features* of events.

Lipton asks what makes one piece of information about the causal history of an event explanatory and another not. He answers that the causes selected to explain facets of the events will tie to our interests. This reduces the number of factors we need to consider. Beveridge (1950) illustrates this well:[4]

> The cause of an outbreak of plague may be regarded by the bacteriologist as the microbe he finds in the blood of the victims, by the entomologist as the microbe-carrying fleas that spread the disease, by the epidemiologist as the rats that escaped from the ship and brought the infection into the port. (Beveridge, 1950, p. 126)

For many purposes, it may be enough to know the meaning of an action (voluntary movement) from the viewpoint of the agent: an agent being someone who can consciously reflect and interpret happenings. But if we are interested in background causes, there is a need to look at the effects of interest and undertake causal analysis. This is not easy. since (unless we can do a physical trace) identifying causes involves a good deal of interpretation. Leo Bogart (2003), talking about federal elections, points out that it is rarely possible to reason back, with acceptable validity, from the specific effects to specific causes.[5]

The Regularity View of Cause and Mill's Five Canons of Inductive Inquiry

The most commonly quoted account of causal inference is captured by the five canons of inductive inquiry, popularized by John Stuart Mill in the

19th century. We use the word 'popularized' because they were originally developed by the astronomer John Herschel (1792–1871). They rest on a Humean concept of cause. Hume (1711–1776), a tough empiricist, argued that the notion of something being the cause and something being the effect was simply an idea that arises from observation but nonetheless *felt* to be a necessary relationship even though this cannot be demonstrated. All that observation can tell us is that there is a *contiguity* of two events, with the antecedent labeled cause and what follows the effect. Anyone pressing a button on a remote to change the TV channel or pressing something similar to lock her car or open the garage door would reject the notion that contiguity was all there was to identifying a 'cause', but Hume is right in saying contiguity is the only thing she can actually observe.

John Stuart Mill's five canons embody a Humean concept of cause: they assume cause (X) and effect (Y) are contiguous in time and place; that (X) precedes (Y) and that the relationship between (X)-type events and (Y)-type events is one of constant conjunction. For Mill the canons were both methods for discovering causes and also proving causes. They are neither, even though useful. Mill's five canons are:

1. *The Method of Agreement*

Mill's statement of this canon is as follows:

> If two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which alone all the instances agree is the cause or effect, or an indispensable part of the cause, of the given phenomenon.
>
> Thus, the canon argues that if
> AB precedes E
> AC precedes E
> AD precedes E
> etc.

Then A, being the factor common in all instances, is causally connected to E. In other words, the method of agreement relies on identifying the common independent variable associated with a particular outcome. The method of agreement depends on having a large number of instances that are different in all respects but one. It attempts to establish that A is a *sufficient* condition for E. If A is a sufficient condition for E, then if A occurs E always follows. Thus, if a sales manager employed a sales supervisor in a number of different regions and on each occasion labor turnover increased, the manager might conclude the supervisor was to blame.

The problem with the method of agreement lies in ensuring the agreement is in one relevant respect or one set of factors only, since the method cannot distinguish between true cause and mere coexistence. We can never

be sure, for example, that some additional factor is not at work in each region to which the supervisor was appointed. The method does not take account of the possibility of many different causal patterns giving rise to the same outcome. Nonetheless, the method of agreement is commonly followed in research . . . and is usually responsible for most errors made by laypersons in respect to making causal claims. Porter's (1990) *The Competitive Advantage of Nations* points to four commonalities (agreement) among the 500 most successful export industries in various nations:[6]

i. Factor conditions. The presence within the country of a technical infrastructure, needed human resources and the other factors necessary in production.
ii. Demand conditions. The presence of a sophisticated and demanding set of home customers whose needs anticipate those abroad.
iii. Supporting industries. The presence of home-based suppliers and related industries that are internationally competitive.
iv. Firm's strategy, structure and rivalry. The innovativeness of the firm and its related strategies are important, but most important of all is the stimulating effect of the presence of fiercely competing local rivals.

This agreement characterizing the most successful export industries does not establish the four conditions that are necessary. Japan showed the largest increase in exports post-war but did it without having the four conditions. In any case, successful export industries are likely to have many, many factors in common.

Peters and Waterman's (1982) *In Search of Excellence*, another best seller, also relies on the method of agreement, claiming that all its "excellent" firms had eight characteristics in common.[7] No attempt was made to show that the firms were 'different', just having the eight characteristics in common, nor did they show that the eight characteristics were absent in the underachieving firms. In fact, there were no hard measures even demonstrating the presence of the eight characteristics in the "excellent" firms. The popularity of this book with managers depended on the promise of its title, the reputation of the authors, and its intuitive appeal, as it owes little to its evidential base.

2. *The Joint Method of Agreement and Differences*

Mill's statement of this canon is:

> If two or more instances in which the phenomenon occurs have only one circumstance in common, while two or more instances in which it does not occur have nothing in common save the absence of that circumstance, the circumstance in which alone the two sets of instances

> differ is the cause or the effect or an indispensable part of the cause of the phenomenon.

The joint method of agreement and difference brings in negative instances together with the positive. It tries to establish both the necessary and sufficient conditions for event E. If A is a necessary and sufficient condition for E, if A occurs, then (and *only* then) will E occur.
Those who accept that the same cause always produces the same effect and the same effect is always produced by the same cause (providing the cause is analyzed as finely as the effect) believe, as a matter of faith, that this is what science seeks.

3. *The Method of Difference*

Mill's statement of this canon is:

> If an instance in which the phenomenon under investigation occurs and an instance in which it does not occur have every circumstance in common save one, that one occurring in the former, the circumstance in which alone the two instances differ is the cause or an indispensable part of the cause of the phenomenon.

Thus, the method of difference argues that if

> AB precedes E
> $\underline{A}$B precedes $\underline{E}$
> etc.

(where $\underline{A}$ or $\underline{E}$ indicates absence), then there is a causal relationship between A and E. The method is reflected in the use of experimental groups (to which stimulus A is applied) and control groups (to which no stimulus is applied) in the design of experiments. As an example, the marketing manager may note a dramatic increase in sales. Nothing has changed except the salesman's incentive plan. The manager concludes that the incentive plan is the cause.

The method of difference requires instances that are alike in all respects except one. It attempts to establish a *necessary* condition for E to occur or, in other words, to identify the independent variable giving rise to different outcomes. If A is a necessary condition for E, then if A does not occur neither will E. A must occur for E to occur. The absence of A is thus a sufficient reason for the nonoccurrence of E. The absence of a necessary condition for market success is a sufficient condition for failure. This is what lies behind the idea of identifying "critical success factors", success factors which are not just necessary but the ones most likely to present difficulties.

The method of difference is employed in comparative research. In comparing Japan and the U.S. when Japan seemed so successful, it was argued

that the Japanese gave lifetime employment; sought consensual decision making; emphasized collective responsibility; promoted on seniority of service and so on in contrast to the U.S. These differences were presented as explaining the relative success of the Japanese vis-à-vis the Americans in spite of the fact that many of these practices by the Japanese were traditionally the factors quoted as explaining the general inefficiency of the U.S. civil service vis-à-vis American industry!

Both the method of agreement and difference assume the presence or absence of E rather than changes in the degree to which E can be present. The *analysis of variance* in statistics would take into account that E could vary by degrees, that several factors may affect E and that the effect of each one on E needs to be estimated. It recognizes that all conditions cannot be controlled, so chance plays a part in determining E.

4. Mill Describes the Method of Concomitant Variations as Follows:

> Whatever phenomenon varies in any manner whenever another phenomenon varies in some particular manner, is either a cause or an effect of that phenomenon, or is connected with it through some fact of causation.

The method of concomitant variation assesses the variation between factors that may be causally related. Instead of merely identifying the presence/absence of crucial variables, concomitant variation actually measures the variations of the variables and relates them. The method finds contemporary expression in the techniques of regression and correlation in statistics. It suggests a cause by establishing a high correlation between the independent variable (the "cause") and the dependent variable (the "effect"). In social science there is interest in establishing the relationship between some dependent variable (Y) and some independent variable (X). We plot the relationship on a graph and use (say) the method of least squares to fit a regression line through the scatter of points on the graph. We might then calculate the correlation coefficient "r" to see how well the regression line fits the observed data. After that we proceed to calculate the residual standard deviation to estimate the range of likely error in our predictions. The dependent variable, for example, might be the degree of commitment to intention to buy while the independent variable might be some measure of attitude toward the buy.

When physicists use a regression line to predict, they know a true regression line does actually exist, following from some validated theory. As a result, the deviations from the straight line in the scatter diagram represent just a random scatter with the line of best fit being the best depiction of the causal law. It can be assumed in calculating the residual standard deviation that the errors are normally distributed with the sample of points emanating from some normally distributed population to which the Gaussian theory of error can be applied.

The question arises as to whether such assumptions can be made when undertaking regression and correlation in social science and marketing. If we cannot define the future conditions under which the same regression line would be obtained, our results are not repeatable and deviations of any individual score from the regression line cannot be said to be a deviation from any true value line. The basic question is whether there are any natural constants in the regression equation, as there are in physics, when, in contrast to physics, the subject is mental states where stability over time cannot be guaranteed. While the physicist uses regression and correlation, already knowing a causal law is there, regression and correlation are frequently viewed in marketing as if they themselves were capable of establishing a probabilistic law. In spite of warnings in every statistics text about extrapolating beyond the range covered by the observed data, such extrapolations are common.

1. The Method of Residues

Mill's statement on the method of residues is:

> Subduct from any phenomenon such part as is known by previous inductions to be the effect of certain antecedents, and the residue of the phenomenon is the effect of the remaining antecedents.

The method of residues is not a distinct method but is supplemental to the others, and depends on having explained some of the events already. The manager might explain a reduction in sales by pointing out that X percent is accounted for as a result of discontinuing a particular line and Y percent as a result of losing certain accounts, so the remainder can be accounted for, by the only other factor in the situation, namely, the weather.

All five canons share the limitation of not applying to unobservable causes or to those causal inferences where the cause's existence (e.g., mental phenomena) is inferred, while the idea of identifying a single agreement or difference is seldom possible. Mill's canons suffer from reflecting Hume's concept of cause. As a consequence they neither guarantee the discovery of causes nor can they provide proof that the cause has been identified—if for no other reason than there may be several causes that can produce the same outcome.

The Concept of Cause

In looking for causes of buying action, the cause may be external as happens when an item out of stock causes frustration. But those who confine themselves to interpretation of action reject the notion that we need to go beyond the meaning (significance and/or the intention of action). This is to reject the idea that we have purposes beyond just understanding meanings

or that we believe that looking for external causes is futile or at least the job of someone else.

Interpretivism focuses on setting out the reasoning processes giving rise to intentional action. This confines causal analysis to understanding the reasoning process that leads to the action. But researchers may not want to confine research on consumers to reasoning processes in arriving at meanings. They recognize the limitations of just seeking the meaning of action when there can be many distortions in interpretation along the way. Many interpretations aim at going beyond meanings attributed by the agent since there are more unconscious mental processes involved in behavior than most people think (Wilson, 2002).[8]

We speak not just of causes but of 'causation' and 'causality' as synonyms for the process of causing. Cause is tied to context and our interests. No causal explanation is a total causal explanation in that no causal explanation will cite all the necessary antecedent conditions for bringing about the effect. Oxygen is a necessary condition for fire but we do not feel the need to say this in asserting the lighting of the match to dry timber caused the fire. In speaking of X being the cause of Y, we are giving priority to X over other conditions that could have been labeled causal.

The notion of cause is suited to talk about human behavior where precision is not demanded or impossible to achieve. In the physical sciences, where precision is needed, the notion of cause is generally replaced by the concept of functional relationships. Scientists speak less of cause and effect than of functional relationships. They stress the continuity between the set of conditions labeled 'the cause' and the set of conditions labeled 'effect', for it is the relationship itself that is of interest and not the properties of the cause. As Feigl (1953) comments:[9]

> On the whole, the ordinary cause-effect terminology fits best the qualitative macro-level; thus it is part and parcel of the language of commonsense and of those levels of science which deal with gross behavior and have not as yet introduced quantitative (metrical) concepts. Once measurement is introduced, the gross cause-effect relation gives way to a mathematical formulation in terms of a functional relationship. (Feigl, 1953, p. 410)

The concept of a functional relationship is a less conceptually loaded (burdened) term than the notion of cause. Thus Y is functionally dependent of X if Y is uniquely determined for each value of X. If $Y = X^n$, then Y is a function of X, and X is a function of Y. Both are functionally related without assuming any explanatory concepts about necessity or the sequencing of events. There is just functional dependence.

Bertrand Russell (1953) argued that the notion of cause and effect was not a consistent one and condemned the whole notion of cause:[10]

> The law of causality, I believe, like much that passes muster among philosophers, is a relic of bygone age, surviving, like the monarchy, only because it is erroneously supposed to do no harm. . . . What I deny is that science assumes the existence of invariable uniformities of sequence of this kind, or that it aims at discovering them. . . . There is no question of repetitions of the 'same' cause producing the 'same' effect; it is not in any sameness of causes and effects that the constancy of scientific law consists, but in sameness of relations. And even 'sameness of relations' is too simple a phrase; 'sameness of differential equations' is the only correct phrase. (Russell, 1953, pp. 387–95).

Why this antipathy to the notion of cause? Because the notion that 'X causes Y' could not be accommodated within Russell's and Whitehead's *Principia Mathematica,* which was meant to cover all forms of reasoning, while the concept of cause itself did fit into the rules of symbolic logic. Russell proposed to substitute for cause and effect the concept of material implication (e.g., proposition X implies proposition Y) borrowed from symbolic logic. In commenting on this passage, Gardiner (1961) argues that to accept Russell's dismissal of the concept of cause would be to accept that only the language of physics is legitimate.[11] Or as Dorothy Emmet (1985) says, the laws of physics are distinguished by being high-level generalizations in theories from which lower-level generalizations can be deduced to support predictions about how natural processes will be found to be. Causal explanations are unlikely to invoke the most general laws of nature, just as the cause of why a building collapsed would not be likely to be caused by the law of gravity, however much this might be a background condition.[12]

If there are no universal laws in social science and the search for universal laws is a search for the Holy Grail, is the search for empirical generalizations the best strategy for marketing? But generalizations have no necessary application in the individual case. Thus students of marketing are warned that around 70% of new products fail. Even if we knew exactly what was included in the term 'new products', the population of 'all new products within the years X to Y' may be far removed from our own market of, say, shaving creams. A company's new shaving cream may fail or be a success but the statement that 70% of new products fail has little relevance to that success or failure. This is not to deny that we find empirical generalizations useful. They provide 'red flags' as to things that can happen and need to be anticipated, such as the generalization that product failure is commonly the result of poor strategy implementation. As Emmet (1985) says, all explanations implicitly assume generalizations based on how people are likely to behave under a confluence of influences and pressures. Otherwise there could be no interconnected narrative in history. Any singular event will have attributes which belongs to some class about which generalizations can be made. Whether such treatment is appropriate depends on the extent to which contextual factors make the case unique.

Why Go Beyond Reasons to Causes?

The justification of an interpretive approach starts with the recognition that most of the vocabulary of social science is comprised of 'action' concepts. Any interpretation of human action leads to understanding only to the extent it enables us to "see" how things happen in the social world. While such understanding is a form of explanation, some advocates of an interpretive social science eschew applying the word 'explanation' on the ground that no laws are sought, while understanding does not carry the same logical force as do explanatory laws in the natural science. The dichotomy between explanation being the concern of the physical sciences and understanding the concern of the social sciences has not had wide support in philosophy on the ground that to understand, say, the meaning of social action like buying or the reasons for buying action are attempts to explain why such actions occurred. As Gibbons (1987) says, in reference to interpreting politics, to understand the intersubjective meanings, rooted in social life, is also a way of explaining why people act in the way they do.[13] Yet no interpretation is entirely neutral and causal analysis can refine an interpretation.

Causal Chains

If we think at all of causal chains we think in terms of *recursive models,* which are models with unidirectional causation. In social science research recursive models are generally unrealistic as reciprocal causation tends to be common. In taking any list of interrelated hypothetical constructs, like self-esteem and success-experience, they tend to form an interdependent system, both affecting each other, just as self-esteem influences success but success-experience affects self-esteem

In setting out a *causal chain,* there is the problem of identifying where along the chain to choose as the cause. This depends on purposes. The cause of an air crash looks different from the perspective of the lawyer, the engineer, the pilot and so on. In human affairs, factors are selected as causal by reference to our concerns and, most important, what appears to be *actionable*. In legal cases, where interest typically lies in assigning responsibility, 'cause' can even be regarded as the omission of some act. It involves counterfactual propositions: If action X had happened, Y would not have happened and so on. The definition of action is extended to include non-action so that responsibility for some occurrence does not go unpunished. In causal chains there is always a danger in selecting a single factor as the cause when multiple causal factors are involved.

Equifinality

Multiple causality or *equifinality* implies alternative causal paths leading to the same effect. Emmet (1985) lists many examples in social science of

the error of ignoring the likelihood of alternative causal paths, including Marxism theory, the monetarist diagnosis, Weber's view of Calvinism as the cause of capitalism and so on.[14] She reminds us that the Roman historian who became known as 'Malaria Jones' claimed that the decline and fall of the Roman Empire was due to the debilitation of the population through malaria while in contrast, as we said earlier, the 18th-century historian Edward Gibbon quotes the triumph of barbarism and religion!

Kitcher (2001) acknowledges that selections of cause will be in tune with the interests of the intended audience. That audience may be interested in *early antecedent events, triggering* events or *enduring* features or *intentions* of agents or sometimes with the conditions that maintain equilibrium. Objective causal explanation is only objective against some background of questions and interests.[15]

There is commonly an implicit assumption that there will be just one cause or one set of causal conditions that produce the effect. For example, there was a search at one time for just one answer to the question: What style of leadership is best? Any question about 'what is best' should be answered with another question: Best for what? Whatever answer we get, we will find (if we are prepared to look) different leadership styles will be able to achieve the same effects in the same context. To assume a specified effect or outcome must result from just the one cause or set of causal conditions is to take for granted that the researcher will be able to discover *both* the necessary and sufficient conditions for that effect or outcome. Of course, we can specify necessary conditions that are just truisms like saying water is necessary for human life on earth.

Modes of Causal Explanation

We associate causal explanations primarily with modes of explanation where some precursor X results in some outcome Y under certain conditions Z or, alternatively, with chains of discrete events, linked together through time in some causal way. Thus we have:

- *Simple causal chains:* X > Y > Z

In this simple causal chain, there is an intervening variable Y between the initiating event X and the effect Z which can effect (moderate) the outcome Z. In seeking out such linear chains of cause-and-effect relationships, much is sacrificed by way of understanding the nature of contributory factors and the multiple effects likely to be occurring. Between the triggering factor and the final effect, there may in fact be a sequence without any transition mechanisms of a concrete (material) nature but simply a conceptual connection between one point and the next. This is frequently the case in models of mental happenings leading to action, for example, like the hierarchy of effect models: awareness → comprehension → conviction → action.

This is a logical chain of mental events but none of the mental states is necessarily a forcing variable and the events may only be separate conceptually without occurring sequentially.

- *Multiple causal structures:*
  (Note: Y U B means Y or B or both)

$$\begin{matrix} X \rightarrow Y \searrow \\ A \rightarrow B \nearrow \end{matrix} (Y \cup B) \rightarrow Z$$

This formulation implies there are rival causal routes to bring about the effect Z. Both cause and effect may in fact be caused by a third factor that causes both of them. There will always be rival hypotheses that explain the effect of interest.

- *Multiple effect structures:*

$$X \rightarrow Y \begin{matrix} \nearrow \\ \searrow \end{matrix} \begin{matrix} A \begin{matrix} \nearrow B \\ \searrow C \end{matrix} \\ D \begin{matrix} \nearrow E \\ \searrow F \end{matrix} \end{matrix}$$

There will always be multiple effects of any cause; some expected, some unexpected, some intended, some unintended. A big problem is anticipating the unintended consequences. A constant question is whether the unintended consequences could have been anticipated.

- *Reciprocal causal structures are shown by double arrows:*

$$X \leftrightarrow Y$$

Reciprocal causal structures are common, e.g., mental illness causes physical illness and physical illness causes mental illness. (X) Causes (Y) and (Y) Causes (X). If reasons (X) are regarded as the cause of buying (Y), then (X) causes (Y) but the relationship between (X) and (Y) is still apt to be reciprocal. This is because buying (Y) is a learning experience which might change buying reasons (X) and hence brand purchase next time around.

The concept of reciprocal causal structures undermines any belief that there must be a first term in any series. But this does not mean intervention cannot be guided. Thus if perceptions influence behavior and behavior influences perceptions, the question then is to determine which "cause" is the more *actionable*.

The preceding causal patterns are familiar in all the sciences, though causal language may be eschewed in favor of talking about one variable being a function of another.

Scientific Realism's Concept of Cause

It is doubtful whether the causal structures illustrated previously ever capture the conceptualization of cause as promoted by scientific realism. Scientific realism conceptualizes 'cause' as a mechanism, structure or powers that cause the effects of interest. The realist does not look for single causes linked to single effects but argues that any effect is more likely to result from complex interrelations among background causal mechanisms. For the realist, the causes of any effect are usually complex, unobservable structures and processes. The realist does not view cause as some immediate antecedent event, but like lung cancer results from causal factors (e.g., smoking) that only slowly take their effect. This is what makes it so difficult to establish the cause of many injuries allegedly linked to some prescription drug—unless there are biological theories in support.

Causal structures and processes can be out of phase with the events they cause, with the consequence that causal relationships are often hidden. This comes about because the world is composed of open systems, not closed ones; open to intervening and countervailing causes, resulting in instability in cause-and-effect relationships. The result is that prediction is always problematic, as we can never be sure which set of generative mechanisms is at work.

Accepting that prediction is problematic (except in the 'closed system' of the laboratory), the realist does not consider prediction the acid test of theory but seeks explanations in terms of causal necessity. Bhaskar (1979), a scientific realist, claims that science moves from knowledge of manifest phenomena to knowledge of the (causal) structures that generate them.[16] However, he argues that the sort of closed systems available to the physical scientist in experimentation are not available to the social scientist. As a consequence, tests of hypotheses, even in experiments, are likely to yield mixed results. His own approach is captured in what he terms his RRRE model of explanation. This consists of a four-phase process:

1. *Resolution* of a complex event into its components (causal analysis);
2. *Redescription* of the component causes;
3. *Retrodiction* to possible (antecedent) causes of the components; Retrodiction is defined as the transition from the resolved components of a complex to antecedent cause.
4. *Elimination* of alternative possible causes of components (Bhaskar, 1979, p. 165).

What is neglected in the RRRE model is what counts as a causal connection. This depends on 'theories' held. The role played by theory is neglected. Thus two different theories might suggest quite different candidates for the status of cause and effect in any single event sequence (Hanson, 1971[17]). Related to this is how professional expertise dictates where to look for cause, in that people look for causes within their own area of expertise. The causes sought

by the behavior researcher may have little significance for the marketing manager either because he or she does not see the cause as actionable (e.g., culture) or requires education as to why it is in fact significant.

Action Theory and Cause

Juarrero (2003) critiques how the word 'cause' is employed in social science from the point of view of action theory.[18] Action theory or theory of action is a branch of philosophy that has relevance for anyone interested in human action, since its subject matter is the analysis of the whole process by which human action originates and how it is explained, whether in the social sciences or in folk psychology.

Juarrero questions much that we take for granted in researching behavior. She starts by drawing on the distinction between voluntary and involuntary, non-intentional behavior. This is the difference between the wink, which is voluntary, intentional behavior, and the blink, which is involuntary behavior. She defines action as voluntary, purposive behavior, chosen as a result of deliberation. Thus a yawn is not action, as it is not deliberately chosen. But Juarrero's view of action can be contested on the ground that it rules out all choices not based on deliberation such as 'impulse buys' or when buyers fall back on the 'likeability heuristic', buying purely on the basis of 'gut' liking. There can in fact be 'choosing without deciding' and 'choice without decision' (O'Shaughnessy, 1986).[19] These are all intentional though not considered to be actions under Juarrero's definition of action.

Juarrero claims intractable problems arise in action theory from a flawed understanding of 'cause' and 'explanation' as they relate to human action. She argues the psychological sciences implicitly follow David Hume (1711–1776) in adopting the Mill's canons that assume causation adds up to nothing more than the psychological anticipation of a previously experienced constant conjunction: that all we can be aware of when we think we perceive a causal relationship is the contiguity and succession of events. No necessary connection is perceived because sense impressions alone do not reveal any forceful, necessitating connection between cause and effect. Observation tells us only that some things regularly follow other things.

As we have seen, according to Hume:

- The cause X and the effect Y are contiguous in time and place.
- X precedes Y or at least does not succeed it.
- Causality is inferred from the constant conjunction between X and Y.

In marketing, Bagozzi (1980) quotes Hume as introducing a modern notion of causation.[20] After all, ascribing causality usually does start with a de facto correlation. Hume's thesis is the *regularity theory of* causation asserting that cause refers to a constant or statistical regularity that obtains between some antecedent S-type events and some subsequent Y-type events.

The regularity theory contrasts with the *natural necessity view* where some necessity is assumed in X causing Y. A causal explanation ideally accounts for the effectiveness of a particular cause in producing its effects.

There is a good deal of controversy over Hume's position on causation (Beebee, 2007).[21] Some philosophers claim Hume was not interested in expressing views about metaphysical causation and, given his views generally, would not have been so presumptuous as to deny the existence of causation and would have been completely confident in its existence. He has been misinterpreted because his focus was on the *semantic* concept of causation and not about causation as applied to the natural world. It was Immanuel Kant (1724–1804) who said that no one was ever misled by regularity into thinking the succession of day and night meant one caused the other. Even those who quote Hume admiringly accept that a causal account must describe more than just observed regularities, though they deny the possibility of causes coming after effects.

While we do sometimes take high correlations to signify some sort of causal connection, it is usually only if there are reasons suggesting a causal connection. Even in Philosophy 101, students will point out that Hume's view fails to distinguish spurious regularities from causal relationships, a distinction that becomes obvious if we manipulate what we believe is the cause. In one hospital it was observed that whenever a certain cat sat next to a patient, that patient was the next one to die. No one suggests the cat caused the death. We need to have a rational reason for assuming a causal connection. Even infants seem aware that contiguity and succession are not enough (Leslie and Keeble, 1987).[22] If causal thinking were not so pervasive, there would have been no adoption of tools by our early ancestors, while those who see God's intervention in the good things that befalls us are seeing God as a causal agent (Wolpert, 2006).[23] That said, to insist that we label something the cause only if it is a sufficient factor to bring about the effect envisions complete determinism. Outside the laboratory there is no such determinism when it comes to human action, since what determines Y is not just the so-called cause X but the cause X together with an accompanying context of factors. As Bhaskar (1979) says, causal relationships in the social sciences manifest empirical invariance only under closed conditions as in the laboratory. As a scientific realist, Bhaskar believes that generative (causal) mechanisms are normally out of phase with their effects.[24]

Identifying the likely cause of an observed effect assumes appropriate background knowledge; the idea that X is the cause of Y is tenable only against background knowledge as to why this might be so. Juarrero in response might argue that, when confronted with strong correlations, there is a tendency for social scientists to invent ad hoc hypotheses about what might be the cause which implies an acceptance of the regularity view of cause. We see this in medical pronouncements, based on correlation data, on what factors affect our health; modifications, and revocations are made all the time, so we hardly know what to believe.

The functional conception of causality where 'if X, then always Y' becomes $Y = \int(X)$ suggests mathematical certitude. Juarrero argues it is just a refinement of the regularity theory. Isaac Newton may have demonstrated that the laws of nature can be expressed as differential equations, but no one has developed equations demonstrating any laws of human behavior. As Fay (1996) says, causal ascription ultimately must be backed by causal theories. If we are to license inferences from alleged causal relations, there is a need to indicate why the alleged cause and effect are more than accidentally related.[25] Take, as an example, a family firm called B&P Company that manufactured and sold a product called Frownies, 'stick-'em-on nighttime facial pads that smooth out forehead wrinkles and crow's feet'. This firm shipped about 225 boxes of the product a week. Suddenly phone orders quadrupled and store orders doubled. It was apparent something had happened. Looking back there was one factor that seemed to be the cause. Rene Russo, an actress, had been quoted in *Good Housekeeping* as saying that she used Frownies to smooth out the crease in her forehead. Few could doubt that this endorsement was the cause of the sales increase, as ethnopsychology tells us that endorsements count (Deutsch, 2003).[26] Another example is the character of Harry Potter, who has made the wearing of glasses 'cooler': the sales of glasses to those fewer than 16 years of age have risen 40% since the first Harry Potter film.

The Natural Necessity View versus the Realist View

The *natural necessity* view is an alternative to Hume's *regularity view*. This insists there must be some necessity to the relationship between antecedent and consequent. The scientific realist takes for granted that causal mechanisms exist; that behind every observable action there are real but unobservable structures, capacities or powers acting as causal mechanisms. Scientific realism seems to be the current favored position and Juarrero's concept of cause is in line with the scientific realist position. On the surface the realist view echoes Isaac Newton in his insistence that causes necessitate their effects. But Juarrero rejects the Newtonian view on the ground that it has led to the billiard ball (collision) view of cause rather than the realist view of unobservable causal structural mechanisms.

As we said earlier, to the scientific realist, the scientist's job is to find the mechanisms, structures or powers that cause the effects of interest. Realists do not reject the existence of theoretical entities like the "ego" or the "electron" just because they are unobservable. Realists generally argue that a statement is true or false independently of whether or not we can verify or falsify it. Whereas the positivist's focus is on observable events themselves, the focus in scientific realism is on the causal powers of entities and their interrelationship in bringing about effects. Scientific realists like Bhaskar (1979) are not concerned with individual cause-and-effect relationships but look for distinct structures that causally mesh together. If, to the realist, prediction is always problematic, we can never be sure which set of generative mechanisms will be at work.

This means that even scientific laws describe a high probability law, not a universal law.

If the positivist sees explanation as a deductive argument, exemplified by the deductive nomological model (D-N model) where cause (if admitted at all) is simply constant conjunction, the scientific realist seeks explanation in terms of causal necessity. Hume's analysis of cause led to a particular account of explanation where the *explicandum* (that which is to be explained) is deduced from a universal law as illustrated by the deductive-nomological (D-N) or covering law model of explanation promoted by Hempel (1965), e.g., "X has expanded. This is because X is metal and all metals expand when heated".[27] The 'law' from which the explicandum is inferred could be statistical. This gives rise to the inductive-statistical (I-S) version of the covering law model. Since these models predict, as a matter of straight deduction, from a universal or statistical regularity, the claim arose that the aim of science is captured in the sequence: explanation → prediction → control. This is still quoted in an unreflective way in texts on social science. This sequence is purely an idealization in the case of the social sciences since there are no universal non-trivial generalizations in social science. As Juarrero says, even Pavlov's dogs did not salivate when the bell rang unless they were hungry.

We are given the impression by Juarrero that Hempel's D-N or I-S model implies a complete acceptance of Hume. But Hempel insists that the D-N model constitutes an adequate explanation *only* providing:

1. The explicandum (the thing to be explained) is a logical consequence of the explicans (that which explains).
2. The law(s) in the explicans were *verified* general laws (s).

Juarrero might claim the so-called verified general laws are not laws at all but amount to little more than confirmed regularities. As a scientific realist, Juarrero would be dismissive of any verification based on a billiard ball collision concept of cause. She claims that without Hume's concept of cause and the covering law it spawned, there would have been no radical behaviorism, as Skinner's radical behaviorism relies on the constant conjunction of stimuli and responses; with the assumption that whatever works is reinforcement. Behaviorists place an organism into an environment, assuming that, when the appropriate stimulus appears, boom!—and the organism automatically responds. Behaviorism, she claims, sought to submerge the flexibility and social appropriateness characteristic of human action. Nonetheless, she praises behaviorism for resuscitating the role the environment plays in action since bringing context back into the picture requires a different type of cause than the collision-like trigger of mechanics. This resuscitating the role of the environment as a causal factor is important as external stimuli in psychology are all too easily ignored (Foxall, 2005).[28]

Juarrero is sensitive to the limitations of cognitive psychology based on the metaphor of the computer. Viewing the mind as a computer raises the problem of coping with meaning (significance and/or intentions) while the

metaphor of the computer cannot capture the contextual embeddedness of action and can never explain the way background history is incorporated into conscious behavior. For her, even cognitive psychology's concept of serial processing cannot adequately handle any of these issues because it has the wrong dynamics. In any case, temporal and contextual factors undermine any search for universal laws.

The Pervasiveness of Belief in Covering Law Model

Juarrero shows how entrenched and pervasive is faith in covering law models of explanation throughout social science. For her, even those who see action as rule-following are behaviorists; *logical* behaviorists looking for covering laws. She contrasts rule-following with rule-conforming where behavior is not determined by rule but simply fits a rule. (A more traditional way of saying this is to talk of rule-*governed* behaviors and rule-*following* behavior in that *regardless* of the action we can infer, ex post facto, some rule is being followed whereas rule-governed implies the rule governs the nature of the action.) Those endorsing the rule-following or the rule-governed approach to understanding action would be surprised at Juarrero's view since they regard the rules covering behavior as underpinned by no more then social norms. Peters (1958), whom she quotes, views people as chess players writ large, with overall actions constrained by the rules of the game. The individual moves, incorporating individual creativity, become impossible to predict beyond that offered as a consequence of assuming rational behavior.[29] This is analogous to language. Language is governed by an overall structure of rules but such rules cannot predict exactly how the rules will be applied in the individual case without knowledge of an individual's linguistic history.

Ryle (1949) dismissed Cartesian dualism that made mind separate from the body as 'the ghost in the machine'. He argued this is a category mistake which incorrectly assigns some term to one linguistic category when it more correctly belongs to another, just as it would be wrong to say pains are emotions because they could be felt. (The Archbishop of Canterbury has talked of 'creationism' being a category mistake, as it assumes the Bible is a theory like the theory of evolution.) Ryle, a behaviorist philosopher, argued mental terms like belief, attitude and want do not refer to an inner private mental world but are dispositional terms. Reference to mental constructs is dismissed in favor of using the concept of *disposition* (e.g., an attitude is a disposition to respond in a certain way to some item, person or thing). Juarrero criticizes this approach on the ground it ignores 'motive'—given we may characterize two examples of the same behavior as different actions if they reflect different motivations.[30] Thus I may take the action of raising my hand to wave or push back my hair. (It would in any case still be legitimate to ask what lies behind a disposition and how the disposition does came about.)

Reasons as Causes

The question of whether wants and beliefs are both reasons and causes of action is regarded by Rosenberg (1988) as of fundamental importance.[31] He argues that if the reason-giving explanation is causal then the philosophy of naturalism is fully vindicated. If, on the other hand, the reasons for action explain, not because they are causes, but because they are reasons, then social science must focus on interpretation of action to demonstrate its intelligibility.

Juarrero claims philosophers typically regard reasons (wants plus beliefs) as causes. Brown (2001) supports this view, arguing that this is the general position among philosophers.[32] In opposition, Bernard Williams (2002) insists the relationship between motivational state, conviction and action is purely conceptual, not causal.[33] Davidson (1963), the philosopher most instrumental in making the case for reasons being causes, dismisses the view that reasons cannot be causes of action because the connection between 'intention to do x' and 'doing x is merely logical'.[34] He forcefully argues that, once it is understood that the 'intention to do s' is a shorthand for some complex of neural events like nerve fibers x, y, z firing, there is no problem in accepting reasons as causes.

Fay (1996) disagrees. For him, it is misleading to view reasons as the cause of action on the ground that reasons per se cannot be causes since the content of thought is neither a state nor a process.[35] Only assenting to those thoughts can be a cause. This a nice distinction, not made by others. After all, there is a distinction between the *expressed* reason for action and the *actual* reason for action. Fay (1996) argues that we come to possess reasons for acting as a result of a practical reasoning process, and this practical reasoning process is one where antecedent wants and beliefs are brought together and modified to form the basis for action.

For Fay, to specify our reasons for action means to specify the *reasoning process* that led us to act: reason-giving explanations constitute causal explanations only when they explain an intentional act as the effect of a corresponding, antecedent reasoning process. There is a need to expose the reasoning process leading to the action, acknowledging that some of this reasoning may be at the non-conscious level. Fay agrees, however, that the real reasons for action can be overlooked if actions take place for reasons hidden from the agents themselves, as may happen when we practice self-deception.

How do we access the reasoning process? By asking, say, the consumer to speak 'off the back of her head' about the purchase before buying (anticipatory account), during buying (contemporaneous account) and after buying (retrospective account) so there is a recording of the reasoning process at the time (O'Shaughnessy, 1986).[36] But practical reasoning processes are not always conscious while not all reasons for action can be recalled and verbalized. In fact the more psychologists study the problem of *recall*, the more

it is found that people forget, distort, edit, select and generalize (Schacter, 2003).[37] Brains, it seems, are designed more for intention and anticipation, not for retrospection. Recollections are not replays of incidents in past experience but reconstructions. Every memory is a reconstruction, not like a file stored on the computer.

Schacter (2003) tells us that those participating in memory championships will admit they are very absent-minded in daily life and survive on Post-it notes! He tells the story of the Dutch researchers asking people, "Did you see the television film of the moment the plane hit the apartment building?" in testing memories of the El Al cargo plane that crashed in 1992 into an Amsterdam tower block. More than half said yes and went on to give details about the speed and angle of the plane, whether it was on fire and what happened as its body fell. In fact, there had been no TV footage of the actual impact, or the aftermath!

Concept of Intention

It is commonly claimed that intentions trigger action and guide, sustain and direct action to its completion. Juarrero quotes Searle (1983), who suggests that the unique feature of intentions-in-action (the intention-to-do-X to bring X about) is that any intentional-level description of an intention-in-action includes, as part of its content, its own conditions of satisfaction.[38] She quotes Charles Taylor (1964), who points out that human goals play a role in bringing about the behavior of interest in that the goal the behavior is designed to bring about is involved in the production of the behavior itself.[39]

Juarrero concurs that explanations in terms of reasons are *teleological* (goal seeking or purposive) explanations, and so they are often dismissed because it suggests the end/goal of action is its cause which violates the logic of 'cause' preceding the effect. As Juarrero says, teleology is neglected because it violates the dogma of the required separation between cause and effect. No one has offered a concept of cause that both triggers action and structures and sustains behavior in an ongoing fashion. She argues we are still stuck with the standard billiard ball model of Newtonian science, one particle bumps into a second particle, which it then activates even as it disengages.

Juarrero's Realist Conception of Cause

In the 1950s and 1960s, communications theory, as initiated by Shannon and Weaver (1949),[40] and systems theory emerging from the work of Bertalanffy (1955),[41] Herbert Simon (1960)[42] and other writers like Hall (1962)[43], Ross Ashby (1952)[44] and Forrester (1961)[45] heralded a new set of concepts that moved beyond the standard models being pressed into service in operations research (or operational research in the UK). In developing a realist conception of cause in human action, Juarrero goes back to this literature in developing a realist conception of cause in human action.

What follows is a brief description of Juarrero's view of the causal process. Juarrero draws first on a distinction made by philosopher Dorothy Emmet (1985), who makes a distinction between *immanent* and *transeunt* causation.[46] Immanent causation is concerned with changes within the system (e.g., like the mind), where effects are not separated from their causes in time. For example, in making certain cerebral events occur, there is immanent causation as we bring things to mind. With immanent causation the correlations of variables are co-temporal as opposed to being successive. The absence of any temporal priority of cause to effect is what defines immanent causation. With transeunt causation, there is temporal separation of cause and effect and this is how we generally view causation. In the case of immanent causation, Hume's rule about cause having to precede the effect does not hold.

Emmet contends that mind and body constitute one unity with different levels of functioning affecting each other. This view is both a rejection of dualism and a rejection of epiphenomenalism. Dualism is the claim that mind and body are distinct entities. If thoughts are claimed to be epiphenomena, it means they are caused but have no effect, analogous to shadows cast as the light falls on us: the shadows are caused but they themselves have no causal power. Reasons are sometimes viewed as epiphenomenal or (to use the philosopher's term) *supervenient* by those who deny free will. In viewing consciousness, as some cognitive scientists do, as nothing more than a 'qualitative feel', it is logical to treat the mind as epiphenomena. But we can reflect on reasons or desires that come to mind, evaluate them and think about consequences, before single-mindedly seeking to satisfy them. Anticipation, contemplation and self-reflection lead to revised desires or forbearance, while the social and material environment constrain what we do.

In line with Emmet's concept of immanent causation, Juarrero maintains there is a need to account for causality where mental cause and behavioral effect are internally interwoven so causes flow into their effects. She insists human action is best interpreted as a complex *adaptive system*, characterized by positive feedback processes. Systems consist of interacting and interdependent components, with parts influencing wholes and wholes influencing parts. Any emergent system can be qualitatively different from the earlier one, just as an integrated system like slime mold has properties that the independent amoebas that compose it do not. This coheres with Bertalanffy's general systems theories that when living things are embedded in an orderly context, properties emerge that do not happen with isolated individuals. This circular, nonlinear causality is a form of self-cause which is the key concept in Juarrero's conceptualization of cause in human action.

The concept of self-cause has traditionally been rejected on the ground that nothing moves itself; that cause is best captured by the metaphor of collision. Yet growth and maturation are examples of self-organizing causality. In fact, all organisms manifest self-cause. She quotes research findings for the claim that nonlinear feedback makes human neurological

processes self-organize. Self-organized systems exhibit interlevel causality, both bottom-up and top-down. The parts interact to create systems that in turn affect their components to bring about interlevel causality. Complex adaptive systems exhibit true self-cause in that the parts interact to produce novel, emergent wholes and, in turn, these distributed wholes regulate and constrain the parts that make them up.

Like Danto (1973), action for Juarrero is trying to make the world fit one's desired representations.[47] *Attractors* in the agent's conscious landscape are the agent's concerns and it is these that guide behavior in forming intentions. The causal process she views as the operation of contextual constraints. Contextual constraints limit or close off alternatives. As Juarrero words it, context sensitive constraints sculpt a chute that progressively and automatically narrows until it terminates in actual action. The contexts in which action is embedded causally constrain whatever is done. As an analogy, she quotes the constraints that the tibia's relationship with the knee places on the tibia to limit the number of ways in which the lower leg can move. The 'narrowing of possibilities' is a function of the significance and meaning that the alternatives have for the agent. Action, successfully executed, is as a trajectory necessitating an uninterrupted flow of information from intention to behavior. The particular trajectory developed emerges as the result of the interplay among intention, other existing attractors, and the continuous input from the environment. Intentions open up and close off downstream alternatives because meanings and the logic that govern intentions rules out logically or physically incompatible alternatives.

While Fishbein and Ajzen (1975)[48] claim "I intend to A" implies "I believe I will A", Juarrero goes along with Mele (1992)[49] in inserting 'other things remaining equal' as a qualification. McGinn (1982), with his focus on volition as the trigger to action, goes further in arguing *intention* is like going into gear, but the *will* to act is like pressing the accelerator.[50] The concept of volition has not fared well in psychology since there is a lack of any sense of performing an act-of-will while the will-to-act appears to require the will-to-will and so on. But showing there is a problem with the concept does not mean the concept is not valid. But Emmet claims 'setting oneself' to do something is a better candidate than act-of-will. This seems a mere re-description of what is meant by 'an act-of-will'.

In Juarrero's view contextual factors do not function as a trigger in the way behaviorism would have it. Because the environment and other contextual considerations have been internalized as a result of positive feedback, one's external structure automatically selects from the various alternatives and eliminates certain alternatives (e.g., brands) as meaningful options. As Juarrero points out the traditional view of cause in bringing about action is unable to account for the direction and monitoring that intentions exercise over behavior. This shows the perspective to be inadequate. For behavior to qualify as intentional action, the intention's meaningful content must constrain possibilities with the meaningful

content flowing interruptedly into action. Actions, however, can be interrupted and distorted. Juarrero uses two terms borrowed from communications theory to illustrate this, namely, 'equivocation' and 'noise'. The information generated initially can be lost in transmission: if this happens, it is known as *equivocation*. Conversely, information reaching the receiver may not have all been generated at source: *noise* may have entered into the transmission. If all information generated initially at 'a' is received at terminus 't', no equivocation is present. If all the information available at 't' came from 'a', there has been no noise. Thus, as she says, a semi-paralyzed patient's lack of success in moving his legs is due to noise and equivocation.

Hermeneutic Interpretation of Action

Juarrero lends her support to a hermeneutic approach to interpreting action on the ground that the approach mirrors the logic of nature's open, adaptive dynamics while hermeneutic interpretations in general are tied to context and explain by showing the nonlinear, interlevel processes at work. In the *hermeneutic circle*, the meaning of the whole is inferred from the relationships among the individual parts and, in turn, the meaning of each individual part is inferred from the meaning of the entire whole in which the parts are embedded. The whole point, she says, of the hermeneutical interpretation of action is to show how meaningful intentions emerge and purposively constrain the behavior that flows from them, unless equivocation and noise interrupt and compromise the intended trajectory. (This is not the only form of hermeneutic interpretation.)

Juarrero enriches the hermeneutic methodology by using her own model of complex human action in undertaking hermeneutic interpretation. She says, as already pointed out, that the whole point of the hermeneutical interpretation of action is to demonstrate how meaningful intentions emerge and purposively constrain the behavior that flows from them. First, there is a need to describe the anticipatory 'mental dynamics' in arriving at the set of choices available to the agent. She refers to this evoked set of choices as the agent's 'contrast space' to emphasize the fact that separate perceived choices necessitate their being distinct in some way. In contrast to the covering-law model, it is an interpretive process that moves up and down, from whole to parts, from parts to whole, from inside to outside and outside to inside. This is helped by context-sensitive cues that help the interpreter reconstruct the agent's thinking. Next, the interpreter needs to describe the path taken in making a final choice by seeking to identify how much action is specifically constrained by:

(a) Early intention
(b) The context or situation
(c) How much through feedback.

As she says, the authentic interpretive narrative explains by knitting together sequential but interconnected threads so the narrative comes out describing a temporal and contextual pattern.

Juarrero maintains that hermeneutical interpretations conflict with causal explanations *only* if we insist on a Newtonian ('collision') model of cause and a Humean (deductive nomological or covering-law) model of explanation. Hermeneutic interpretations are reasons that stem from considering part to whole and whole to part in interpreting action; they embed behavior in a context, reproducing the nonlinear, interlevel interaction between the agent's internal dynamics (both mental and motor) and the physical, social and temporal environment in which the agent lives and acts.

Realism's Role in Social Science: One Social Viewpoint

Realism, with its focus on causal mechanisms, remains an attractive approach in social science once it is acknowledged that causal explanation will be limited to some episode. Shapiro's (2005) *The Flight from Reality in the Human Sciences* is a defense of this view.[51] This is a book of six essays, two of them co-authored, focusing on related themes. In terms of the book's content, the title has a double meaning. One meaning is that the human sciences are becoming less and less relevant to real world problems. As Shapiro says: 'In discipline after discipline, the flight from reality has been so complete that the academics have all but lost sight of what they claim is their object of study' (Shapiro, 2005, p. 2).

The other meaning is that 'reality', as sought after by the human sciences, is not that of scientific realism, which equates reality with the scientific picture of the world. The human sciences, in ignoring scientific realism, which seeks causal explanations, are confining themselves to shallow understandings of human phenomena.

Shapiro, as many have done before him, echoes dissatisfaction with the achievements of social science. It is this dissatisfaction that has led the social sciences to adopt the methods assumed to be those of the natural sciences, particularly physics: the ultimate in scientific achievement. It is this same dissatisfaction that encouraged psychology to move from 'introspection' as the way to psychological insight to behaviorism and from behaviorism to cognitive psychology and, for some, a return to the interpretive methods of the humanities. With the recognition that various paradigms in social science are either different windows onto a problem or developed to answer different questions, many philosophers have accepted 'perspectivism'. Claims about viewpoints being tied to perspectives contrast with the belief associated with 'positivism' that we can attain knowledge that reflects *the* Reality *as it is* (Fay, 1996).[52] Fay describes perspectivism as the claim that there can be no intellectual activity without an organizing conceptual scheme that reflects a perspective. However, Shapiro does not take

this route but argues that debates about social explanation are dominated by two antagonistic schools of thought: logical empiricism and interpretivism, which are challenged by scientific realism with its focus on causal explanation.

For Shapiro, logical empiricism has degenerated into (a) 'Logicism', embracing a view based on Hempel's deductive-nomological model, that good explanations are sound deductive arguments emanating from a general theory or universal law and (b) An empiricism that looks to observation as the basic foundation for knowledge claims.

Shapiro's exemplar of logicism is the economist's rational-choice theory (RCT). Shapiro argues that rational choice theories have 'degenerated' into elaborate exercises to salvage the notion there are universalist-scope theories. He points to the many variants of RCT, imposing different assumptions about the sorts of utilities people maximize, the sort of beliefs they endorse and the way they acquire and process information. He concludes by saying that few applications of RCT are at once arresting and sustainable.

For Shapiro, RCT is an illustration of *method-driven* research in contrast to the need for *problem-driven* research. While rational choice theorists see themselves as simply seeking the boundaries for applications of RCT, Shapiro sees them as putting the cart before the horse in not first selecting problems worthy of investigation. Instead they are prone to select descriptions of phenomena that favor RCT and manipulating data to fit RCT presuppositions. In illustrating how method-driven research leads to fallacious analysis, he chooses Richard Posner's microeconomic conception of judicial efficiency. Richard Posner is a judge of the U.S. Court of Appeals, 7th Circuit, who founded the law and economics movement. A prolific writer and commentator, his prowess with words makes him easily quotable and a formidable opponent. But Shapiro takes him on and shows how, in being so method-driven, Posner's logic slips up badly, with Shapiro arguing that Posner's theory of wealth-maximization, as the reality of judicial activity, tries to turn a highly controversial thesis into an axiom.

Shapiro makes a major issue of the human sciences being method-driven; that they need to become problem-driven, guided by scientific realism. Shapiro uses a variation of the metaphor of the method-driven researcher being like the little boy with the hammer who finds everything needs pounding. With his bag of statistical techniques, the researcher sees his job as seeking applications, resulting in the manufacture of problems that match his techniques. Furthermore, this method-driven research has the researcher selecting a topic and a description of the topic that fits the methods he wishes to employ. Shapiro maintains that method-driven research conflates theory-driven and method-driven research in that rational-choice theory is manipulated to act as a method instead of a theory. (It could be argued that imputational interpretation, where we impute our model or paradigm onto the data, does make a theory into a method!) A

researcher who is problem-driven needs to specify the problem divorced from any consideration of the theories or methods deployed to study it.

In marketing it is a common complaint that top journals with a quantitative orientation concentrate on 'error terms' in that the main criterion for evaluating a piece of research is whether it predicts outcomes like market share. This reflects the wide adoption of instrumentalism. If prediction is crucial, then explanation is less so—quite the contrary to the natural sciences. Oxford physicist David Deutsch (1997) puts it well:[53]

> Whereas an incorrect prediction automatically renders the underlying explanation unsatisfactory, a correct prediction says nothing at all about the underlying explanation. Shoddy explanations that yield correct predictions are two a penny, as UFO enthusiasts, conspiracy-theorists and pseudo-scientists of every variety should (but never do) bear in mind.
>
> I have already remarked that even in science most criticism does not consist of experimental testing. That is because most scientific criticism is directed not at a theory's predictions but directly at the underlying explanations. Testing the predictions is just an indirect way (albeit an exceptionally powerful one, when available) of testing explanations. (Deutsch, 1997, pp. 65, 66)

The fact is that prediction in social science is beyond what is possible except where the hypothesis is a trivial truism or a conceptual truth or in some other way the study is designed to make prediction a certainty. Shapiro rightly says that the decisive role of contingent events typically rules out ex-ante prediction of success, though the theory may be effective in predicting failure. In any case, even the word 'error' is unfortunate since it implies (unlike the word 'mistake') the outcome arose from the violating of some rule. In point of fact, given the importance of context and the inherent absence of universal (non-trivial) laws, being error-free becomes being significance free. Shapiro points out that an excessive preoccupation with prediction drives researchers to select trivial but tractable questions while theory is often spelt out in such a capricious manner that some version of it may be consistent with every conceivable outcome so it cannot be falsified. This is true of dissonance theory. In political science as in marketing, it seems, decisive predictive tests minimize problem significance and consequently fail to illuminate the subject for their intended audience.

But is Shapiro correct in grouping logicism under empiricism? We defined empiricism as the philosophy that would confine 'reality' to that revealed by sensory experience, claiming that what we know we know only because the empirical evidence so far happens to point that way. Empiricism contrasts with 'rationalism', which asserts that the world is knowable only through reason, since sense data need to be connected in the light of reasons. Shapiro's logicism (rational-choice theory) falls under rationalism,

not empiricism, as he claims. There is no way 'logicism' can be categorized as empiricism. Shapiro acknowledges logicists ground their theories on assumptions that may or may not reflect observations about the world, so how can logicism be a species of empiricism? He views logicism as cohering with Hempel's deductive-nomological model, so just assumes logicism is a form of logical empiricism.

It is true that the *logical* positivists did see explanation as a deductive argument and if they considered 'cause' at all, it was simply the constant conjunction of events as claimed by Hume. However, Hempel in his D-N model went further and aimed to set out the necessary and sufficient conditions for something to be accepted as a scientific explanation. The law in the D-N model is meant to be a universal law of nature, being true regardless of time and place. This means that generalizations like 'all our customers are price conscious' will not suffice as they refer to some finite class. Hempel viewed a law as incorporating general terms referring to general kinds of things, not to individuals. In addition, the law must have withstood empirical testing. Shapiro's logicism exemplified in rational-choice theory (RCT) does not fit the D-N model.

Von Wright (1971) sees the primary test for the validity of the D-N model in whether it captures reason-giving explanations.[54] As he saw it, the only thing that came near a law-like statement explaining action is the 'principle of rationality', asserting that people rationally choose the best means to maximize their goals. But this principle is a *rule* and not a law of nature in that, like all rules, it can be broken without anyone believing that it is thereby falsified. All rational-choice theory (RCT) is based on the rationality principle . . . a normative principle pointing out what acting rationally would dictate. This is so even if economists assume people will actually act as the theory dictates.

Logical empiricism has its roots in logical positivism, as Shapiro points out, but the major goal of the logical positivists was to provide criteria for distinguishing between those problems and assertions that deserve to be considered science and those that do not. A later generation, which included A.J. Ayer, Richard Braithwaite, Carl Hempel, Ernest Nagel and May Brodbeck and also some of the original members of the Vienna Circle, like Carnap and Feigl, were to evolve logical positivism into "logical empiricism". It was Carnap, a prominent member of the Vienna Circle, who substituted the term 'logical empiricism' for 'logical positivism'. Carnap preferred the term 'logical empiricism' to 'logical positivism' because, unlike early positivists, he saw the focus of the Vienna Circle to be on logical analysis as a tool for clarifying concepts. The logical empiricists are less united in doctrine than were the logical positivists but share with the logical positivists the central tenet of methodological monism, that is, there is only one scientific method and that is the method or methods of the natural sciences.

Logical empiricism insists that all scientific claims be evaluated on the basis of empirical evidence. On this basis there is no way that Shapiro's

logicism can be considered part of logical empiricism. Logical empiricism sees the goal of science as *explanation* (not mere description like the logical positivists), insisting that all scientific hypotheses be testable and potentially falsifiable. I suspect Shapiro included logicism under logical empiricism because Miller (1987), a realist whom he mentions, describes positivism as the worship of generality in the philosophy of science.[55]

Shapiro does not mention 'naturalism', though it relates to realism with its stress on causal explanation. Nagel was a logical empiricist who promoted the doctrine of *naturalism,* which asserts that whatever occurs, including mental events, is contingent upon the occurrence of physico-chemical-physiological events and structures. In other words, like physics, it accepts that everything is made of matter whether it is a solid, liquid or gas, thus ruling out supernatural explanations or any concept of mind being different from body. Naturalism's perspective for interpreting phenomena is that of a closed system of cause and effect with nothing beyond it or transcending it. This for some scientists subscribing to naturalism is just a programmatic rule for doing research, not a reflection of absolute truth. As an approach to the social sciences, naturalism asserts that people can be studied in the same way as the rest of the physical world: that human behavior can be explained in terms of causes without resort to supernatural explanation. Interestingly, while recommending that the social sciences focus on *overt* behavior, Nagel accepts that the subjective states of people have to be understood if we are to understand their actions, even claiming that the logical canons used to address the evidence for imputing such subjective states are not essentially different from those used in science generally.

An alternative view to that of Humean regularity view is, as we have seen, the "natural necessity" view, which comes in various disguises. Those who regard cause as something more than constant conjunction claim, like the *scientific realist*, that to identify (X) as the cause of (Y) necessitates showing how (X) *produces* (Y). There are several forms of realism but all involve claims about the actual existence of certain entities. "Naïve" realism or "commonsense" realism concedes to observation direct acquaintance with the physical world, that is, that we perceive reality not through sense-impressions but directly (Ayer, 1973).[56] But *scientific* realism is something different. Hacking (1983) argues that there are two kinds of scientific realism:[57]

(i) Realism about theories: Realism asserts that theories are either true or false since truth is how the world is.
(ii) Realism about unobservable theoretical entities: Realism accepts the existence of many theoretical entities even if they are unobservable.

There are those who are realists about theories but not about entities and vice versa. Thus, Bertrand Russell was anti-realist when it came to theoretical entities but was a realist about theories. Also, some people may be

realists about *some* theories and *some theoretical* entities and anti-realist about others. In general, controversies about realism center on realism about theoretical entities. Hacking's own realism is a robust belief in the independent existence of certain theoretical entities ("if you can spray them, then they are real") but does not believe in the objective truth of models or theories. The "realist" takes it for granted that real causal mechanisms exist and need to be identified. Such mechanisms can refer to "powers", "capacities", "structures" and so on. To the argument that objects do not exist in the world independently of how we conceptualize them, Hacking (1983), as a realist, asserts that the fact that we do partition the world into what are possibly incommensurate categories does not itself prove that all such categories are mind-dependent. For the realist, whenever the consumer sees, feels, smells, and touches a product, these experiences are not created by the mind, but are abstractions from an independent reality.

Shapiro describes himself as subscribing to *transcendental* realism, which means a realism that goes beyond direct empirical evidence. This was Karl Popper's position, combining empiricism with rationalism to achieve a satisfactory epistemology. Shapiro takes the core commitment of scientific realism to be that the world consists of causal mechanisms that exist independently of any study and that the methods of science offer the best way to grasping their true character. He argues that scientific realism differs from logical empiricism in that it accepts that causal *mechanisms* and unobservable entities like the electron, posited in scientific theories, actually exist. It shares with logical empiricism the need for empirical tests. Shapiro is right in claiming logical empiricism is generally agnostic about unobservables, leaving the question open to developments in science. But, for the realist, just citing any cause is not enough; there is a need to specify the causal mechanism(s) at work.

The question that arises is whether the search for and the identification of causal mechanisms are always desirable, feasible and viable.

Desirable? If we accept that the adequacy of any explanation depends on purposes, are causal explanations always desirable? Ernest Nagel (1961), as someone subscribing to naturalism and logical empiricism, describes a causal law model as follows:[58]

> The sense of 'cause' we wish to identify is illustrated by the following example. An electric spark is passed through a mixture of hydrogen and oxygen gas; the explosion that follows the passage of the spark is accompanied by the disappearance of the gases and the condensation of water vapor. The disappearance of the gases and the formation of water in this experiment are commonly said to be the effects that are caused by the spark. Moreover, the generalization based on such experiments (e.g., whenever a spark passes through a mixture of hydrogen and oxygen gas, the gases disappear and water is formed) is called a 'causal law'. (Nagel, 1961, pp. 73–74).

This causal law could form a law in the D-N model. Yet a universal law may be expressed as a simple formula requiring much background to be properly understood, like Einstein's $E = mc^2$, which expresses the interchangeability of mass and energy. Would the addition of mechanisms usefully add to such formulations?

In social life, we are content with explanations couched in terms of people's reasons for doing what they do. In the social sciences, interpretive approaches, as Shapiro says, focus on the meaning of the action. He argues that Wittgenstein's focus on meaning as meaning-in-use led to a shift in focus away from the relationship between language and reality, toward language as reality. As a consequence, the interpretivists conceive the task of understanding the social world as elucidating the rules governing linguistic use. Certainly Winch (1958), a student of Wittgenstein, did direct attention to understanding a society through identifying the concepts of the culture, on the ground that underlying these concepts are the rules being followed. But meaning-in-use is not in general the type of meaning that is generally of most interest. It is meaning in the sense of the significance to the individual that commands most sway. Thus, we want to know what is significant for the buyer because significance is tied to concerns and people's concerns have an emotional resonance.

Shapiro is right in claiming that, in line with literary hermeneutics, it has become typical to regard human actions and processes as a 'text' for interpretation. He argues that it is a small step from this to regard society as a text, whose meaning is best recovered by interpreting the web of linguistic conventions within which social agents operate. But this wider adoption of the text metaphor had more to do with postmodernism than with Wittgenstein.

Shapiro in effect asserts the interpretive approach is too superficial to form the foundations for a social science. Interpretive approaches are defective in failing to take account of (a) ideological distortion and (b) dimensions of actions that ignore or neglect unconscious intentions. He concludes by saying that so long as no generalizations are made about their completeness and epistemic significance, the resulting weak interpretivism may be unobjectionable. However, to what degree people's beliefs and self-understandings explain their actions is a matter of empirical investigation, not armchair reflection. But the interpretive approach is one window through which to view human actions. It cannot claim to answer all the questions that might be asked but it could be argued it is sufficient for answering many questions.

Shapiro describes the realist view of causation as a relation between mechanisms and outcome, not as with the D-N model, the relation between premise and conclusion. This is so as even in the natural sciences the D-N model might embrace 'causal laws' but may not provide the mechanisms realists have in mind. The realist is not hostile to the reliance on predictions of empirical regularities as evidence for the validity of causal claims.

In closed systems, causal powers produce such predictions. However, there needs to be prediction of novel facts, unforeseen by existing theories, and it should be possible to successfully intervene, in the sense of removing the factor and seeing what happens. To the scientific realist, the scientist's job is to find the mechanisms, structures or powers that cause the effects of interest. Whereas the logical positivist focus is on observable events, the focus in scientific realism is on the causal powers of entities and their interrelationship in bringing about effects.

Shapiro claims instrumentalism makes sense within the D-N framework on the ground that the prediction of events is intended to check the validity of the claims. Instrumentalism justifies science in terms of its ability to predict and control. Although Shapiro associates instrumentalism with logical empiricism, this is not so. One criticism by Nagel (1961) of instrumentalism is that a consistently held instrumentalist view precludes its adherents from admitting the physical reality of any 'scientific objects' postulated by a theory (p. 145).[59] If scientific theories are merely instruments for prediction and control, this leaves no independent explanatory function for theories. Whether or not theories capture hidden aspects of reality is subservient to their predictive ability; theories are no longer true or false but merely useful or not so useful.

Feasibility? Without a physical trace, it is not easy ex post facto to identify the true cause or causal chain. Shapiro seems to have great faith in abduction as a way of discovering causes but it is not clear there is much here by way of unique techniques for the job to be done. In any case, we select from along the causal chain the factor that is *actionable* according to our interest.

Viability? The final question is whether, searching for causes, will produce benefits that outweigh the labor costs of searching for the cause or set of causal conditions. We do not have any general laws in social science of a non-trivial nature because contextual factors reign supreme. Shapiro endorses qualitative methods using case studies with the hope that the inductive process will allow limited range theories. He endorses observation and abductive inference as the research method to describe how causal mechanisms work, acknowledging that realists support identifying empirical regularities as one kind of evidence for the existence of causal mechanisms. Shapiro claims that, because the primary task is to describe how causal mechanisms work, realists tend to favor qualitative research methods, using information-intensive case studies. Scientific realists, contrary to the logical positivists, deny that what exists must be restricted to what is observable, so causal mechanisms may just have to be inferred. As in the natural sciences, social science should be concerned, he says, not with comparing 'theories' against the evidence, but against alternative theories that may be better explanations. Statistical techniques offer a conventional way of bringing about closure in research when there would otherwise appear to be no end to the disputes over the degree of support for a hypothesis.

But such closure is often purchased, as Shapiro would agree, at the price of abandoning the need to eliminate rival explanations.

A question with Shapiro is whether we are able to define a problem without 'theoretical biases'. The recognition of a problem is not the identification of the problem. We do not so much discover a problem as *diagnose* a problem, which means making a choice about how to formulate the problem. This, in turn, depends on what we believe *counts as a solution* to the difficulty encountered. The ability to solve a problem is not much help, if the wrong problem has been diagnosed. We cannot even understand a problem without understanding what would count as a solution, just as we cannot understand an objective without understanding what would count as the achievement of it. This does not mean there will always be diagnosis. Often professionals define a problem in terms of their own expertise without any diagnosis.

Shapiro concedes too much to critics in accepting the notion that all observation is theory-loaded. If I observe my son is jogging, in what sense is this observation theory-loaded? There is a need to draw a distinction between 'theory-loaded' and 'concept-dependent' in that any description will draw on concepts. Ernest Nagel (1979)[60] comments on the Feyerabend claim that all observations are theory- loaded:

> ' . . . observation statements' occurring in the natural sciences are held to be 'theory-impregnated' in the double sense: in the sense that they assert more than is ever 'given' in experience, so that they can never be completely verified but have the status of hypotheses; and in the sense that the meanings of the terms in them can be explicated only by way of theoretical assumptions, so that changes in theory bring with them changes in the meanings of all observational terms, and therefore changes in the commitments to what Feyerabend calls the 'ontologies' postulated by theories. (Nagel, 1979, p. 78)

Nagel goes on to demonstrate that there are observation terms whose meanings are neutral with respect to the theory being tested, and whose meanings are invariant under changes in accepted theories of a certain class. Nagel denies all observation terms involve theory and are therefore unavoidably "theory laden". He claims in fact that:

> . . . most if not all the terms employed in describing the observations that are made with the intent of testing a given theory usually have established meanings that are not assigned to those terms by the very same theory—It is simply not true that every theory has its own observation terms, none of which is also an observation term belonging to any other theory. (Nagel, 1979, p. 93)

Hacking (1983) similarly argues that it is false to assume that observational reports will always embody theoretical assumptions unless Feyerabend

subsumes under the word "theory" every assumption being made. If this is, in fact, Feyerabend's definition of theory, then the assertion that every observational report is theory-loaded may be true, but trivial. Hacking, while agreeing that we see things because our paradigm or theory points in that direction, points out it is also possible on occasions to notice things because there is no theory to give direction!

6 Interpretation of a Problematic Situation (Abduction)

INDUCTION

Charles Sanders Peirce (1839–1914) used the term 'abduction' for the type of reasoning or method of discovery that moves from a given set of facts to an explanatory hypothesis.[1] Abduction is illustrated in science by the way Kepler reached his hypothesis about the elliptical path of Mars from the observed irregularities in the movement of Mars. For Peirce, the founder of pragmatism, abduction was one of three forms of inference: induction, deduction, and abduction. Before discussing abduction, it is useful to describe induction and the hypothetico-deductive method by way of contrast.

In philosophy of science the aim is to describe the way science proceeds to establish truth. Two methods receive central stage. One is "induction" and the other the "hypothetico-deductive method". The term 'retroduction' is a synonym for abduction and this term is used by Mowen (1979) in arguing that researchers could develop marketing theory through retroduction.[2]

Hacking (1983) contrasts the two methods by comparing Carnap's 'verification' and Popper's 'falsification'.[3] Carnap, one of the original members of the Vienna Circle, claimed scientific progress comes about through the verification of empirical facts, which is a bottom-up approach. In contrast, Popper's hypothetico-deductive (H-D) method is a top-down approach. With Carnap, we move from facts to generalizations which are tested by subjecting them to empirical verification. This is the method of induction.

Hacking reminds us that Carnap (1891–1970) wrote in a tradition that stressed induction as the scientific method, referring to the natural sciences as the "inductive sciences". The scientist was viewed as making precise observations, conducting experiments, developing generalizations and finally working up to hypotheses and theories. Carnap regarded the scientist's observations as the foundation of knowledge, seeing how they added up to confirm some tentative law-like generalization even if only probabilistic. As Hacking says, he spent the later part of his life in an attempt to develop an inductive logic to explain how observational evidence could support

hypotheses of wide application. Popper, on the other hand, believes there is only one logic, namely, deductive logic, and that rationality in science proceeds by the hypothetico-deductive method, namely, conjecture (conjecturing a hypothesis) and refutation (seeking to falsify that hypothesis).

In its broadest sense, induction is any process that proceeds from empirical statements made about some things of a certain kind (e.g., consumers) to a conclusion or generalization about all the remaining things of that kind. For those who subscribe to induction as the scientific method, science always begins with the direct observation of single facts on the ground that nothing else is observable, certainly not regularities. (Methodological individualism, discussed earlier, goes with such a program.) The observed facts are then defined and classified on the basis of similarities and differences. Once the facts are ordered, inductive generalizations can be made. It is only when numerous observations are compared is it possible to generalize. The passage from observed facts to generalization is *induction*. Such generalizations evolve into 'laws' if they withstand testing. Laws are related to other laws to form theory. Science, on this view, is primarily concerned with the collection of data, forming generalizations from these data, with laws and theories later emerging through the testing process.

The problem for the inductivist is to find a method that provides inductive *proof*, that is, to show how observational evidence can be used to validate laws of wide generality or provide criteria that certify "good" inductive inferences. Unfortunately, universal laws cannot be absolutely verified by any form of inductive logic, so how is induction justified? One rationale to justify induction is simply the claim that it works. However, having worked in one set of circumstances in the past is no guarantee of future success. A second rationale to justify induction is by assuming the uniformity of nature as opposed to regarding nature as chaotic. This assumption seems much less true when it comes to the social world than to the world of physics. But even if nature is uniform, it does not imply that the particular uniformities being observed (e.g., in a market) will hold in the future. The uniformity of nature assumption itself relies on induction. A final rationale relates to sampling theory in statistics, but no sampling theory can justify induction because it too depends on induction. Faith in induction manifests itself in a belief that, with enough studies, the truth will out with the evidence being overwhelming, e.g., that all the studies in marketing journals will converge into some grand theory. This relies on faith in the possibility of universals, stability and uniformity of behavior.

Many sociologists recommend an inductive strategy for building sociological theory:

(a) Observe how people behave in different groups.
(b) Develop concepts and generalizations to describe such behavior.
(c) Move onto other groups to confirm, modify and augment earlier concepts and generalizations.

This procedure is misleading if it suggests that equally intelligent people will be 'good' inductivists since those with a social science background are guided in their observations by the sensitizing concepts they have learned. A physicist is unlikely to perceive what the sociologist perceives, as their theories and categories differ. All observation is selective and the more fruitful observations are likely to be made by those already knowledgeable in the area. We see what we have been taught to see or what seems relevant to our concerns.

Zaltman and Bonoma (1979) recommend induction as a basis for theory building in marketing.[4] They suggest moving from observing successful marketing practices to the building of sound theory by adopting a two-stage approach:

(i) Observing the rules of thumb used by good marketing managers.
(ii) Deducing from these rules of thumb some model or the set of assertions lying behind the rules.

Although a study of what managers do might reveal hypotheses and creative tactics, the procedure is misleading if it gives the impression that identifying rules is a simple matter of observation since observation is selective *and* concept-driven. Induction, as recommended by Zaltman and Bonoma for marketing, takes little or no account of how conceptual and theoretical presuppositions determine what "facts" are seen and how they are ordered. Kuhn (1970) argues that scientists come to their research with a theory-loaded conceptual lens (a paradigm) without which certain phenomena would be overlooked and scientists with different conceptual lenses see (interpret) things differently.[5] Hanson (1958) argues that contrary to the inductivist position, a theory is not pieced together from observed facts but from fitting the observed phenomena into systems.[6] In fact, it is not clear how we could know some datum was relevant without hypotheses to guide us and there are no rules for moving from data to relevant hypothesis.

Hypothetico-Deductive Method and Deductivism

Induction goes with the tenets of logical positivism, and early positivists like Auguste Comte (1798–1857) and Herbert Spencer (1820–1903) equated the scientific method with induction. But Mach (1838–1916), whose views about science had a strong impact on his fellow logical positivists, was not concerned with laying down any specific method as long as it was empirical and had predictive power. Today, those of a positivist orientation are likely to support the hypothetico-deductive (H-D) method. These critics of induction argue that science does not proceed from assembling lots of individual facts and assuming these facts will throw up generalizations leading to theory building. The only fact is that there are no pure facts since all

assembled facts are *described* facts. Also, what facts are considered relevant depends on the theories and concepts held.

With Popper, we start with a hypothesis and devise tests to see if it can be falsified. A hypothesis that withstands falsification is spoken of as being corroborated. This is the hypothetico-deductive method, which is Popper's application of *deduction* to the problem of making scientific progress

With the hypothetico-deductive (H-D) method the first priority is to generate hypotheses to guide observation and experiment. As Popper says, the simple command to observe cannot be followed since there is an indefinite number of things that might be observed: observation is selective and science is a combination of inspiration and deduction. Inspiration is needed to postulate the hypothesis or corresponding model, which in turn directs the process of testing. Explanations do not just emerge from collections of facts as per the method of induction but from ideas, incorporating concepts that provide criteria on what to look for. Advances in science are often occasioned by major changes in concepts since faulty conceptual baggage can hopelessly bias the selection and description of the facts.

Popper argues that all observation in scientific inquiry rests on theoretical assumptions, so scientific knowledge, contrary to logical positivism, does not start with sensory experience. Scientists follow the hypothetico-deductive method, whereby bold hypotheses are suggested, tested, accepted, rejected or modified. Popper refers to the hypothetico-deductive philosophy as *deductivism* to distinguish it from inductivism. For Popper, the H-D method is a method of falsification in that it can falsify a hypothesis but never prove one. Popper claims that the more easily falsified hypothesis should be selected for testing first. The more easily tested hypotheses tend to be those widest in scope so that, if the hypothesis withstands all attempts to falsify it, we learn a great deal. Also, a hypothesis may be more easily falsified because it makes *precise* predictions, neither vague nor ambiguous. But falsification may be very elusive. We have yet to test the existence of gravitational waves (ripples in the fabric of space and time, which is one of the predictions of Einstein's general theory of relativity), as the technology for doing so is still being developed.

The basic question is, What constitutes 'falsification'? Few scientists throw out a theory because of a few anomalies, at least not until a better theory comes along. In any case, how do we choose between theories spun off by the different explanatory systems in psychology and sociology? Popper was later to acknowledge that, while falsification is still best for testing *within* theories to improve them, the evaluation of competing theories (*between*-theory choosing) will involve a wider range of criteria since competing theories may survive all feasible types of testing. Popper argued that competing theories must be assessed *togeth*er rather than each in isolation, applying all types of criticism but particularly searching for inconsistencies.

The hypothetico-deductive method has come to enjoy wide acceptance among social scientists because it legitimizes the postulation of unobservable theoretical entities like 'attitudes'. In contrast, induction seeks purely observational sciences composed of descriptive regularities. This is strange since even in the eighteenth century some of the most successful theories in physics and chemistry assumed unobservable entities. As Ernest Nagel (1961) argues, no interesting scientific hypothesis restricts itself to what can be directly observed but includes nonobservable constructs like the electron.[7] Such transcendent hypotheses cannot be inferred through induction.

While the inductivist views scientific progress as occurring through the steady accumulation of more and more facts leading to theories becoming more and more general in scope, this is not necessarily so with the hypothetico-deductive account. The hypothetico-deductive approach views scientific progress as involving successive formulations, modifications and rejections of theories without any absolute assurance that scientific knowledge will necessarily be steady and cumulative.

Criticism of the Hypothetico-Deductive Method

Popper's 'deductivism' went with his claim that science progresses through the falsification of theories. Thus if I claim that everyone reciprocates a favor, but I am provided with just one example where this was not so, it renders my assertion untrue. The reasoning is purely deductive in that if there exists one example where there is no reciprocity for a favor, this *entails* that my 'theory' that everyone reciprocates a favor is false. But Popper does not avoid the problem of induction with his concept of deductivism since it is in fact an inductive step to assume some theory which has passed a variety of tests will be a better guide to the future than one that has not been so tested.

The question still remains as to the grounds for expecting unfalsified theories or hypotheses to remain unfalsified and falsified theories or hypotheses to be continually falsified regardless of their domain of application. There is an inductive element in weighing the significance of each falsification or nonfalsification, and we need some way of rationally defending why so many nonfalsifications in such circumstances lead us to accept the hypothesis. Usually, the criterion is *conventionalist,* which says that we select on the basis of what is conventionally acceptable.

Popper is criticized both for his views on *within*-theory testing and *between*-theory choosing. Nagel (1979), an early critic of Popper, while agreeing that science is an honest search for evidence to eliminate rival hypotheses, rejects Popper's particular conception of the role of falsification in theory development as an oversimplification that is "close to being a caricature of scientific procedure" while the substance of Popper's later ideas on science, even when understood to be prescriptive, are "any less

dubious than when they are taken to be descriptive"[8] (pp. 76–77). Popper was inspired by Einstein, whose theory of general relativity appeared to be a bold conjecture with Einstein inviting scientists to falsify his claim. But what Nagel (1979) and others find simplistic about falsificationism is that it fails to show how knowledge can advance though applying tests designed to falsify hypotheses.

As Ravetz (1990) says, if the hypothesis is falsified, we gain only the knowledge that some particular hypothesis is false.[9] On the other hand, if the test does not falsify, we learn only that the hypothesis has not yet been proved false. As a principle of method he regards such an approach as bankrupt. What many object to in Popper is the notion that positive instances cannot confirm a hypothesis as if lots of empirical evidence is not relevant to confirming a scientific law. Even if falsificationism is a limited tool for suggesting how science should proceed, the recognition that hypotheses and theories need to be falsifiable is an important criterion in science.

Putnam (1981) does not regard Popper's scheme for *within*-theory testing to be that much different from the more traditional approach.[10] Both views proceed by arguing theories/hypotheses/models imply predictions which, if falsified, falsify the theory. On the traditional view, if sufficient predictions are true, the theory is "confirmed" while Popper simply substitutes the word "corroboration" for confirmation. Putnam argues that scientific activity cannot in general be thought of as simply a matter of testing theories or models. As Harré and Secord (1973) point out, much scientific research does not involve the sequence: hypothesis → prediction → test, but is exploratory with the scientist having no clear idea of what is likely to occur but simply aims to find out.[11]

ABDUCTION

Abduction is Peirce's third category of inference. Abduction proceeds from the observation of unexpected fact(s) to a hypothesis that explains the fact(s). The move from data to hypothesis and the testing of hypotheses involves interpretation all the way.

There is a link between abduction and causal analysis in that the explanatory hypothesis could be causal but this is not necessarily so, as Peirce's example of abduction makes clear. This example involves a docking at a Turkish seaport and seeing a man on horseback, surrounded by many horsemen holding a canopy over his head. It would be reasonable to infer that this was the governor of the province if unable to think of any other man who would be so honored. Mowen (1979) believes Peirce today would probably have followed Popper in labeling retroduction (abduction) the process of theorizing by conjecture. But abduction and the hypothetico-deductive method are different. Abduction is a process that starts with anomalous facts, moving back to seeking antecedent determinants and

ending with explanatory hypotheses, whereas the origins of Popper's conjectural hypotheses remain unexplained while the focus of Popper is on ways to falsify the hypothesis.

When surgical departments in hospitals hold 'mortality and morbidity' investigations to analyze mistakes that have been made, they are practicing abduction. Similarly, investigations by the National Transportation Safety Board into airline crashes involve abduction. We visualize companies doing similar 'postmortems' to explain product failures but this may be less common than it should be. As Karen Arenson (2006) says,

> . . . institutions are not always hungry for more information. Investigations can be costly and they can assign blame. They can uncover things that might give ammunition for lawsuits. They may delve deep into assumptions made when a system was put together, which may be outdated or expensive to change.[12] (Arenson, 2006, August 21)

She quotes Merck's failure to act on evidence that Vioxx might be linked to heart disease. Yet a willingness to examine failures (and puzzling successes?) provides an opportunity to benefit from them.

Lipton (1991) contrasts Popper's hypothetico-deductive (H-D) model with abduction, which he describes as 'inference to the best explanation' by pointing out that the H-D model is an account of corroborating evidence rather than inference.[13] Inference does rather better since it brings in the competition. In fact, the H-D method cannot falsify conclusively while we reject hypotheses, not just because the hypothesis is incompatible with the data, but because the hypothesis turns out to be inadequate in explaining what we want to explain. As he says, it is a mistake to claim that disconfirmation operates exclusively through refutation, in data being incompatible with the hypotheses: scientists reject theories as false because, while they are not refuted by the evidence, they fail to explain salient contrasts. Lipton concludes by arguing that inference to the best explanation (abduction), linked to contrastive explanation, provides an alternative to the D-N model in its account of:

(a) The context of discovery
(b) The determination of relevant evidence
(c) The nature of disconfirmation in that it lends positive support that contrastive experiments provide

He points to three fundamental weaknesses in the H-D approach:

- It neglects the context of discovery.
- It is too strict in discounting relevant evidence that is either not entailed by the hypotheses under investigation or not incompatible with it.
- It is over-permissive, counting some irrelevant data as relevant.

We are often faced with a situation that is puzzling and seek to explain it by making inferences from what is observable. We work back from what seem to be the relevant facts and construct the most plausible explanation that stands up to cross-examination. Sometimes the explanation can be corroborated through predictive implications: predictive in the sense of what we might find if the explanation were true, and not likely to find if the explanation were not true. Abduction is the method of Sherlock Holmes with his focus on inferential methods. It is also common in marketing. As an example, take the case of explaining the reduction in viewership in the USA by men aged 18–34 of the prime-time shows of ABC, Fox, CBS, UPN and WB. This male segment is an important one for advertisers, so there was concern over the decline. One response from Nielsen was that younger men are defecting to play videogames or surf the Internet and watch DVDs. Another explanation was that the prime-time schedules of the six broadcast networks had included new series that appeal more to women and older viewers than to this younger male segment. We always start with some idea as to an explanation and proceed from there. The explanations in this case were not mutually exclusive, as both factors may have contributed, but abduction could be employed to arrive at a more valid answer. There are always alternative explanations and those arising through abduction cannot be regarded as ultimate truth but 'well-constructed Sherlock Holmes stories'.

There is abduction in the natural sciences. Thus we are told by physicists that an atom is mainly empty space with a central core called the nucleus. This nucleus is made up of protons and neutrons, while circling the nucleus is a cloud of electrons. Each electron carries a negative electric charge and collectively the electrons cancel out the positive electric charges of the equal number of protons. The result is the whole atom is electrically neutral. But how can scientists know all this when these subatomic particles are too small to be seen even by the most powerful electronic microscopes? Abduction comes into it when, through the use of a bubble chamber, these particles are made to leave tracks.

EVOLUTIONARY PSYCHOLOGY (EP)

Darwin, in looking at the similarity among species, and seeking an explanation for that similarity, essentially embarked on abduction. And evolutionary psychology (EP) is a social science discipline we might expect to use abduction most since its methods seek to explain behavior by trying to identify the adaptive problems faced by our ancestors and moving on to infer the psychological adaptations that needed to evolve to solve them.

EP claims that we have propensities for certain wants and these are evolutionary adaptations. It accepts the evolutionary basis of innate behavior and tries to theorize as to how it might have arisen. The metaphor of the 'selfish

gene' has created the misleading impression of genes with motivations and intentions (substituting the man-in-the-gene for Ryle's dismissal of dualism as the man-in-the-machine). But to speak of the 'selfish gene' is not to claim that genes have motivations, but to suggest that natural selection is a process of evolutionary change rooted in competition among genes. That said, EP assumes most neuro-cognitive mechanisms lying behind mental states are the result of evolutionary adaptations to ancestral environments.

EP has yet to have an impact in the social sciences, perhaps because the claims made by its advocates seem implausible and the hard evidence is missing. In one of the latest books, Nicholas Wade (2006) explains dialects as having evolved to distinguish friend from foe![14] There are simpler, less far-fetched explanations. Even the notion of our psychological makeup coming about thousands of years ago, to meet the demands on our hunter-gatherer ancestors, is somewhat speculative. Buller (2004), a philosopher in the area, claims in fact that our minds are not adapted to the so-called Pleistocene age but are continually adapting, over both evolutionary time and individual lifetimes.[15] He examines the most highly publicized 'discoveries' and concludes that none are actually supported by the evidence. Many of the claims are simply implications from the assumption evolutionary theory is true without providing corroborating evidence. Such explanations are 'just so stories'; post hoc speculations, accepting that all behavior as arising from natural selection should serve some function.

Abduction Using Case Studies and History

Those undertaking interpretive social science would like to develop generalizations from intensive study of individual cases. History seems the most likely area to build up generalizations that might help in diagnosing a problem situation. But they would be lessons *from* history, not lessons *of* history, since the latter suggests law-like generalizations are possible in history while lessons from history merely suggest history can provide useful analogies. The following is a lesson *from* history but not a lesson *of* history (my italics inserted into the quote):

> The Sunni Arabs have run Iraq since the Ottoman era under the same *illusion that affects every group in control of a society—that they are the natural rulers because they are more educated and harder working.* They view the predominantly Shia southern Iraq as lazy, corrupt and promiscuous. (Graham, 2005)[16]

The quote in italics may not be universally true but any historian would endorse it as perhaps being typically the case when the majority group in a country has all the power. The assertion seems to reflect both our experience of majority attitudes to minorities and to be in line with what we think we know about people.

In looking for lessons *from* history for the Iraq situation, the U.S. government might have noted that when the Americans sent 6,000 American troops into Veracruz to unseat the Mexican dictator Victoriano Huerta, American forces expected to be greeted as liberators, but instead their presence prompted riots all over Mexico and united Huerta and his opponents (Judis, 2004).[17] Citizens of a country feel it is not the role of a foreign power to act on their behalf and usurp their responsibility for regime change with the invader perceived as putting themselves in a position of patronizing superiority.

Drawing on history to better interpret a problematic situation is not confined to historians. Freeman Dyson (2005), an eminent physicist at the Institute of Advanced Study in Princeton, in reviewing a book by Max Hastings on World War II, claims (for him) it teaches several lessons.[18] First is the immense importance of the Geneva Convention on the humane treatment of prisoners, as indicated by the contrast between two kinds of war, that in the West which followed the Geneva rules and the war in the East fought without such rules. He says Americans who are trying to weaken or evade the Geneva rules are acting shortsightedly as well as immorally. The second lesson has to do with the fact that German soldiers consistently fought better than Britons or Americans: the Germans always won when numbers were equal. The reason was the difference between a professional army and a citizen army: the Germans were professionals. The lesson is that professionalism combined with a society that glorifies soldiering makes the difference in fighting qualities. The third lesson is that international alliances, although slow and cumbersome, act as constraints and protect against fatal mistakes and follies, as happened with the second Iraq war. The fourth lesson is how everyone who engages in war does things which under normal circumstances would be considered criminal. An example Dyson quotes is the strategic bombing of German cities in WW II which could not be justified in terms of contributing to military victory (it helped strengthen German civilian resistance) but was continued (and has been continued in subsequent wars) because of an ideological commitment to bombing as a war-winning strategy.

Analogies from history are drawn upon usually only as a first step. Khong (1992) lists ways that analogies from history are used by policymakers in the diagnosis of a problematic situation:

(a) In defining the new situation
(b) Judging what vital interests are involved
(c) In laying out prescriptions for dealing with the new situation
(d) In assessing the chances of success
(e) In estimating the risks of adopting some policy[19] Policymakers in turn treat these as possible questions that might be asked of the past.

Jared Diamond's (2006) *Collapse: How Societies Choose to Fail or Succeed* stresses the lessons we might learn from history: its success suggests

the public's absorbing interest in all such lessons.[20] But interpreting what lessons or analogies from history are valid for the situation is always controversial, with the recognition that most policy decisions rely on the policymaker's total stock of knowledge and values to which historical (and theoretical) knowledge will be only a part.

There are always problems in moving from historical cases to firm generalization. Although an in-depth case analysis can be enlightening, there are problems in generalizing from it. Thomas (2002), in a review of an ideographic study on the Reformation by the Cambridge historian Eamon Duffy, while acknowledging Duffy's intense scholarship and insight, points out that such micro-history, involving a remote country village in England, cannot "provide an adequate explanation of the wider forces of historical change. . . . We have to look at the movers and shakers: the politicians and the bishops, the evangelical preachers and the godly layman."[21]

Bernard Williams (2002) points out that a historical narrative may contain nothing false, but it can never be complete since to describe implies selection, so there can always be further descriptions in other terms.[22] In other words, what facts we choose to interpret are themselves a selection from many possible selections.

There are historians who argue that historical generalizations can be 'scientifically demonstrable'. Simonton (1990) sets out, with impressive examples, to show how this is done.[23] What he means, however, is that the application of quantitative techniques can usefully be applied in establishing that a relationship is not spurious but a regularity. As he says, not infrequently a hypothesis looks secure by qualitative inspection but is then shown to be invalid once the data are converted into quantitative form. Also, a pattern may not be apparent when just surveying the numbers because we may not perceive probabilistic associations. Mathematics can be used to represent physical reality but in the process can offer new insights into that reality since mathematical techniques bring out the implications of data and have the distinction of achieving intersubjective agreement without argument over the validity of mathematics. On the other hand, Simonton reminds us of the choice between precise answers to trivial questions versus vague answers to profound questions; the latter may be of more use.

In marketing there are researchers who undertake only expansive studies, using lots of statistical hardware, hoping to discover broad generalizations even if not laws. On the other hand, those who undertake ethnographic-type studies are regarded as using 'soft' methodology that is too loose to be considered scientific. But the distinction between the ideographic and the nomothetic is not watertight. General laws in natural science are empirically warranted only on the basis of factual evidence that includes concrete cases. On the other hand, any focus on the unique and non-recurrent involves selection, while abstraction from the concrete occurrences being studied requires the employment of general descriptive terms and names which, in turn, assume *kinds* of occurrences. Thus as Nagel (1961) says:

> . . . characterizations of individual things assume there are various *kinds* of occurrences, and in consequence that there are more or less determinate empirical regularities which are associated with each kind and which differentiates one kind from other kinds. (Nagel, 1961, p. 549)[24]

In abduction, as with Sherlock Holmes, we are typically working back to some set of conditions that collectively we call the 'cause' of the present situation. What is not always made clear is that working back from problematic situation to identifying cause, the researcher cannot do so without some idea as to what to look for. If the researcher does not have a mental store of possible causes or reasons that includes the correct one, she cannot discover the cause. If Robinson Crusoe had found the print of an animal he had never seen, there are strict limits to what he could deduce from the print.

As we have said, the idea that X might be the cause of Y is only tenable against some background idea of why this might be so. The more experienced a person is, the more concepts he or she will have of possible causes. The experts have an implicit probability hierarchy as to what might go wrong given the situation, just as the fire investigator has a hierarchical arrangement of concepts applicable to the cause of fire. The manager who selects causes for testing in order of their probability is likely to solve the problem in the shortest time. Popper suggests, in contrast, first thinking in terms of the easiest to test. Isaac Levi (1967) is relevant here in his claim that hypotheses that are false but highly amenable to rigorous testing are abundantly available and what is more, hypotheses that are false but survive rigorous testing are also far from lacking.[25]

Few problematic situations facing the marketing manager result from never-seen-before causes, but knowledge of likely causes needs to be organized into some hierarchy of possible causes or at least into a check list. One of the most common questions asked of marketing research is to explain why some product failed or is selling below expectations. On occasions, the answer is all too apparent: a consequence, say, of a rival market entry that was simply overwhelmingly superior and backed by a huge promotional budget. The question that would be asked here is not why the product failed but why the firm failed to anticipate the competitor's entry.

In looking for defects in past strategic decision making, broad categories like the following are always helpful in abduction:

- Failure to *anticipate* what should have been anticipated;
- Failure to *learn* when the facts 'were staring the organization in the face';
- Failure to *adapt* to known changes in the external environment when such adaptation was necessary.

For instance, IBM in the 1980s failed to *anticipate* that, when it gave up leasing its computers to customers, it would lose that continuous relationship with its customers which had previously kept IBM close to its market. Similarly, IBM failed to *learn* that phasing out old technology led to a loss in leadership as rivals rushed to fill the gap. Finally, IBM failed to *adapt* to changes in the market when mainframe computers (the specialty of IBM) were losing their dominance. We can also look in our abduction for *systemic* defects:

- Errors persisting
- Solutions continuing to fail
- Solutions coming too late

Where errors persist, it suggests an absence of learning and too little self-criticism in the organization. When solutions continue to fail, it suggests either a failure in creativity or to correctly anticipate conditions in the real world. Finally, if solutions come too late, it suggests indecisiveness and a failure in knowing when or how to adapt. This failure to adapt is the most serious because it indicates that the organization is not monitoring the environment.

We look for things that are actionable. An *actionable* cause is that set of causal antecedents which can be addressed. This requires knowledge of relevant causes. For example, product failure might be attributed to one or some combination of the following.

- Higher costs than anticipated: costs cover entry costs and the costs of building market share.
- Competitor actions. This may not be a matter of competitors coming out with something better, but (if the product is new-to-the-world) not spending sufficiently on building up primary demand for the product.
- Change in wants and beliefs so that the market is less than expected.
- Capacity limitations not anticipated.
- Deficiencies in marketing strategy, analyzed in terms of product, price, promotion and distribution are the ones most considered.
- Organizational deficiencies leading to poor implementation.

If any of these go wrong, the consequence could be failure. But which do we look at first? The requirements for success involve all the aforementioned, but it is experience that suggests which factors are most likely to be responsible. Experience provides the probabilities as to which are likely to have been most significant. Postmortems about what went wrong are useful, not in laying blame but in establishing failure to *learn*, failure to *anticipate*, or failure to *adapt,* so such failures can be noted and action taken to prevent recurrence.

Sometimes psychologists talk as if making judgments about others resembles the process of abduction. Bennett and Hacker (2003) will have none of this, arguing that judgments about others do not rest on inferences but recognizing what concepts or conceptual criteria (e.g., arrogant) are appropriate for describing the behavior.[26] Thus if I refer to someone as sad, I am simply noting her behavior to see if the *concept* of being sad applies. Similarly, I recognize without making any inferences that someone is in pain because the concept of being in pain applies to the behavior. There is truth in this claim even if it does have a positivist/behaviorist ring about it. It is easy to be lulled into thinking we can delve into people's minds to make judgments about their makeup.

Abduction in Science

The value to science of abduction would seemingly lie in the progress towards the discovery of novel 'truths' that a disciplined abduction might expedite. This was the line taken by Peirce. But 'truths' are commonly rejected if they are too novel. When John Dalton put forward his atomic theory in 1808, the work was either completely ignored or not well-received. Only later when the atomic theory was shown to explain new experimental observations did chemists adopt the atomic theory.

Peirce spoke of the *logic* of abduction in generating and formulating new hypotheses and choosing those with the most promise. Here abduction becomes logic of discovery more than a logic of justification. It is still debated whether the logics of abduction are very different in kind from the logics of justification. If the search for rigorous formal logics of discovery has been abandoned, the search for weaker 'logics' continues with a focus on heuristics (rules of thumb), as illustrated brilliantly by Gigerenzer et al. (1999), *Simple Heuristics that Make Us Smart*.[27] Some philosophers, like Lakatos (1968)[28] and Laudan (1977),[29] take a different route in choosing to study the growth of rationality in science.

Abduction as Inference to the Best Explanation

Abduction is 'inference to the best explanation', though it would be better to say 'inference to the best potential explanation' since the choice is from a pool of potential explanations. Lipton (1991), in his book *Inference to the Best Explanation*, views such inference as the way we generally go about weighing evidence and making inferences. He stresses that what needs to be explained should *not* be 'Why this?' but 'Why this *rather than* that?' Instead of asking why a particular product failed, ask why sales were less than an equivalent rival product. It may not be possible to explain why sales are down in an absolute sense but only why they were less than a competitor's during the reference period. When something surprises, the contrast made is with the outcome expected, like the expected sales level.

This is a requirement to show deviations from standard in business. It is needed since without standards there can be no guidance. But an additional requirement is to contrast results, not just against predicted standards, but against the achievements of rivals. The contrastive question narrows the range of explanatory causes while explaining a contrast is easier than explaining the event itself.

Abduction and Serendipity

Abduction is concerned with *explaining* a problematic situation and making helpful inferences conducive to the discovery of hypotheses. In this, abduction connects with *serendipity,* with which it has much in common (Merton and Barber, 2004).[30] It was Walpole in 18th-century England who first used the term 'serendipity' to refer to "accidental sagacity": accidentally made discoveries. But it was not until the 20th century that serendipity was seen as something indispensable to science. Thus Roentgen accidentally discovered X-rays as a consequence of noticing their effects on photographic plates and Fleming accidentally discovered penicillin by noting the effects of a mold on bacterial cultures. Serendipity is accidental discovery arising during the process of inquiry while abduction is a process by which an explanation of some problematic situation is discovered. Serendipity can involve abduction and abduction can involve serendipity.

People practice abduction all the time, as when they interpret, say, very high-heeled shoes worn by a woman as indicating a willingness to sacrifice function for form (Scheibe, 2000).[31] Abduction seeks an explanation or, more correctly, an interpretation that accounts for the facts with a minimum of conjecture. Not surprisingly abduction, as a method, is advocated in all the interpretive approaches in social science. Every interpretation is, however, underdetermined since no single interpretation is guaranteed to be the best available. This is also true of abduction.

Case Studies and Theory Development

Abduction sanctions case studies in theory development. Few social scientists and marketing academics have not, at one time or another, reflected on whether cases could not be put to more use than just being instruments for sharpening students' acumen in class discussion. Could not bringing together 'similar' cases contribute to theory? A book by two political scientists, Alexander George and Andrew Bennett (2005), will prompt many to think afresh about the potential of case studies for theory development.[32]

George and Bennett define a case as an instance of a class of events and case studies as 'small-n' studies in contrast to 'large-N' statistical studies. They take for granted that cases can be categorized on the basis of significant similarity, for instance, problem encountered, and that it is possible to formulate generalizations of theoretical interest. But they disavow the

notion there are universal laws to be deduced from case studies, nonetheless claiming the analysis of cases can help identify causal *mechanisms* to develop contingency ('it all depends') theories of limited scope. They maintain that the difference between a law and a mechanism is analogous to that between a static correlation ("If X, then Y") and a process ("X leads to Y through steps A, B, C"). Following Merton (1957), the sociologist, they suggest case study research aim for middle range theories consisting of generalizations of limited scope.[33] They argue statistical methods do not lend themselves to capturing operational measures of 'slippery variables' and are unsuited to testing causal mechanisms in the context of particular cases, where frequency distributions from large samples are just not available.

Cases at the very minimum can test theories and the authors quote how one case study (see Lipset et al., 1956[34]) contradicted the well-known 'law of oligarchy' (how oligarchies ultimately prevail in government) put forward by Robert Michels in his work on political parties.[35] (The law of oligarchy was in line with the contention of Thomas Hobbes (1588–1679) that power is indivisible and rests in one place regardless.)

If we wish to go beyond correlation to causation in decision making, statistical methods are not much help. Case studies, the authors argue, are more efficient at discovering the scope conditions of 'theories' and evaluating claims about causal necessity or causal sufficiency in specific instances than they are at gauging generalized causal effects or the causal weights of variables across a wide range of cases that are at present the province of statistical methods. Cases can test theories as deviant cases can uncover new or omitted variables, test hypotheses or discover causal paths and mechanisms. The usefulness of statistical-correlation findings is considerably reduced when, as is most commonly the case, such studies do not identify the causal variables decision makers can act upon. The established repertoire of statistical generalizations tends to be undermined when confronted with case histories. This is not surprising when we consider the crucial importance of contextual factors in explaining behavior. As summarized by the authors:

> . . . case study researchers generally sacrifice the parsimony and broad applicability of their theories to develop cumulatively contingent generalizations that apply to well-defined types or sub-types of cases with a high degree of explanatory richness. Case study researchers are more interested in finding the conditions under which specified outcomes occur, and the mechanisms through which they occur, rather than uncovering the frequency with which those conditions and their outcomes arise . . . researchers must be careful to point out that they seek only contingent generalizations that apply to a subclass of cases that are similar to those under study or that they seek to uncover causal mechanisms that may be in operation in a less extreme form in cases that have less extreme values on the pertinent variables. (George and Bennett, 2006, pp. 31–32)

They define causal mechanisms as

> . . . ultimately unobservable physical, social or psychological processes through which agents with causal capacities operate, but only in specific contexts or conditions, to transfer energy, information or matter to other entities. In so doing, the causal agent changes the affected entity's characteristics, capacities, or propensities in ways that persist until subsequent causal mechanisms act upon it. (George and Bennett, 2006, p. 137)

This view of causal mechanisms situates the authors as adhering to *scientific realism*. The scientific realist takes for granted that causal mechanisms exist; that behind every observable action there are real but unobservable structures, capacities or powers acting as causal mechanisms. They list the methods employed in the analysis of case studies. These are very briefly sketched:

1. The Method of Structured, Focused Comparison

The method is *structured* in that it is directed by questions stemming from the research objective and it is *focused* in that it deals only with specific aspects of the cases examined. The phases of such research are:

- *Phase one* is composed of tasks involving the collection and examination of 'similar' cases that have been subject to different treatments. These may embrace cases that have been explained by theories; cases used to identity variables or hypotheses or causal mechanisms; cases used to test a theory or the scope of competing theories; cases used to determine whether intensive testing is warranted or cases used as heuristic devices to discern common patterns.
- *Phase two* focuses on explaining the outcomes. This phase utilizes *abduction:* working back from outcomes in the cases to explanations with the likelihood of integrating multiple weak inferences, rather than one strong inference, to support conclusions. Clues lead to the development of new hypotheses which lead to expectations as to what might be found that would be unlikely unless the hypothesis were true. There will always be rival interpretations of the data and with it the problem of reconciling or choosing the more likely hypothesis.

The authors point to the challenges of reconstructing past decisions; problems of data reliability; the common error of using models of decision strategies that are clever but which no one would use; and finally forgetting that members of a decision-making unit (DMU) can agree on what to do without agreeing on the reasons for doing it. They endorse the rule for all data collection, to report how the data were created and how we came to possess the data. This is similar to the advice of the great 19th-century historian Leopold von Ranke, who said historians should always ask

(a) How did these documents come into existence and how did they come to be published? (b) How is the trustworthiness of the evidence provided by the documents influenced by the answers to question (a)?

- *Phase three* consists of drawing out the implications of the case findings for theory development.

2. *The Second Method is Process-tracing*

Process-tracing seeks to identify the intervening causal process—causal chain or causal mechanisms—between the independent variable(s) and the outcome(s) of the dependent variable. This is in fact the *genetic explanation* explained by Ernest Nagel (1961) in his discussion of the historian's methods.[36] This method is promoted by George and Bennett as offering most potential for identifying causal mechanisms and theory testing. This was also the claim made by Nagel. If we are not to resort to too much conjecture, process-tracing has a problem in establishing causal paths. This is because unless we can do a physical trace from consequent to causal antecedents, the selection of the causal mechanism is prone to error. It is too easy to assume that any antecedent is the cause, providing it seems a relevant factor. Perspective can be all important. Take as an example the 1857/58 uprising in India against the British. Rosie Llewellyn-Jones (2007) points to the many 'causes' that are quoted to explain the uprising: a peasant revolt (based on a Marxist perspective); unfair treatment of the sepoy (the soldier-historian's perspective); the changing role of the East India Company (the political historian's perspective); the changing balance of trade (the economic historian's perspective); the evangelical movement originating in Britain (the social historian's perspective).[37] This list is not exhaustive while the factors can interact and interconnect is a way that it is difficult to identify, added to which is the problem of weighting the various factors to account for the resulting slaughter.

George and Bennett list a variety of process-tracing procedures:

- the detailed narrative presented as a chronicle;
- a narrative accompanied by explicit causal hypotheses. The causal path traced may not be linear but demonstrating causal interactions or how sequences of events can foreclose options and steer outcomes in unanticipated ways.
- showing how alternative processes arrive at the same outcome.

3. *The Third Method is Causal Hypotheses*

Case studies can be used to hypothesize about causal mechanisms, recognizing the possibility of 'equifinality' (multiple causality) and 'multifinality' (many outcomes consistent with a particular cause).

4. The Fourth Method is Within-case Analysis and Cross-case Comparisons

George and Bennett argue that the strongest way to draw useful inferences from case studies is the combination of within-case analysis and cross-case comparisons within the same research program. Within-case methods focus on the causal path in a single case, commonly through the 'congruence method' where the researcher starts with some theory and tries to assess its ability to explain or predict the outcome in the particular case. How do the predictions and expectations of the theory match the outcomes of the cases? There is the complication of possibly coping with more than one theory being congruent with the case outcome or the outcome being caused by a third factor not considered.

5. The Fifth Method is Typological Theorizing

Typology is the study of types, just as the sociologist of religion considers each religion a type, consisting of a different combination of beliefs and rituals. We may similarly try to classify cases into types as a basis for distinguishing the conditions under which the different types bring about different outcomes. Thus we might note the many different types of life cycle with the standard 'textbook' life cycle viewed (following Max Weber) as an 'ideal type' where an ideal type (like pure competition) is an abstraction which may or may not correspond to anything in the real world but is assumed to represent core features.[38] Perhaps if we extracted a number of life cycles from actual case studies, we might be in a position to talk about contingency theories in life cycles!

George and Bennett discuss case selection bias as when researchers unwittingly select cases that are a truncated sample along the dependent variable of the relevant population of cases. There is always a problem in interpretation. Are the different interpretations equally as defensible given the evidence? Can the different interpretations be reconciled? Are the competing interpretations simply addressing different aspects of the case?

The authors deal with the most common criticism of case research for theory building: the 'degrees of freedom' problem or the potential inability to discriminate between competing explanations. They point out that it is a mistaken interpretation to argue that a case study using one or more variables would seem to have zero or even negative degrees of freedom. As they say, statistical researchers aggregate variables into single indices to get fewer independent variables and more degrees of freedom, but case study researchers do the reverse in treating qualitatively many relevant dimensions.

George and Bennett argue that theory development itself via case studies will be an inductive process. This raises the danger of making the assumption that the accumulation of case studies will solve the problem of induction, but, as Boland (1982) says, this assumes a collective stability of belief systems with

static theories to be tested and confirmed over and over again.[39] How might George and Bennett respond, given that the conventional wisdom is aligned with Popper's hypothetico-deductive method and against induction? They would argue they are using induction, not in the sense of proceeding from a collection of observed facts, but from having tentatively identified causal mechanisms through abduction, which is something more substantive.

We can conclude that the qualitative analysis of a few case studies can add to knowledge, providing the right questions are addressed. Anyone who doubts this might read the book on 'resilient teens' edited by Hauser, Allen and Golden (2006).[40] But the researcher is unlikely to rely purely on case studies. Typically, case studies will be supplemented by interviews, historical analysis and the analysis of episodes and events. Drawing on an amalgam of such methods allows Louise Richardson (2006), in her book *What Terrorists Want,* to reach some interesting conclusions.[41] The objective causes of terrorism are not to be found in poverty, privation or in a ruthless quest for domination. Poverty and inequality are simply risk factors that increase the likelihood of terrorism. Rather, the root causes of terrorism are to be found in a combination of conditions, namely, disaffected individuals, an enabling community, and a legitimizing ideology. But when terrorists actually act, they are driven not by the desire or expectation of achieving the superordinate political objective of their organization but by three immediate objectives: (i) they want to exact revenge (typically) for perceived humiliations, (ii) to acquire glory and (iii) to force their adversary into a reaction. Richardson quotes Karl Rove, who claims conservatives saw what happened on 9/11 and said: we will defeat our enemies (p. 40). This action-oriented approach Rove contrasts with the liberals, who saw what happened and said: we must understand our enemies. It is sad that someone who was so high in the Bush administration was unable to recognize that understanding can be prerequisite for developing effective strategies to defeat the enemy. Richardson goes on to show how this is so.

BAYESIAN INFERENCE

Should not abduction in case studies use Bayesian inference? Bayes's rule shows how to manage 'conditional probabilities', which are probabilities which show the effect of one event on another. For example, the probability of a consumer being satisfied with a purchase is known to be higher if it is known she claims the purchase was a bargain. We make one event (that the consumer claims the purchase was a bargain) a condition of the other (the consumer being satisfied).

Bayesian statistics or Bayesian inference starts with each person setting subjective (a priori) probabilities and updating them in the light of new information using Bayes's rule. In other words, Bayes's rule is used to change the original subjective probabilities or degrees of belief, according to the new information. When viewed as a branch of probability theory,

Bayes's rule is a simple rule for computing the probability of each of a set of N-mutually exclusive and exhaustive events.

If our Sherlock Holmes predicts something, the validity of that prediction is related to the probability with which the basic hypothesis is true. But given additional new information we revise the probabilities and this is where Bayes comes in. It was the Reverend Thomas Bayes (1763) who discovered how to calculate the probability of 'before', 'conditional' or 'after'. Salsburg (2001) points out that: [42]

> . . . when epidemiologists attempt to find the possible causes of a rare medical condition, like Reye's syndrome, they often use a case-control study. In such a study, a group of cases of the disease is assembled, and they are compared with a group of patients (the controls) who have not had the disease but who are similar in other respects to the patients with the disease. The epidemiologists calculate the probability of some prior treatment or condition, given that the control patients had the disease. This is how the effects of smoking on both heart disease and lung cancer were first discovered. The influence of thalidomide on birth defects was also deduced from a case-control study. (Salsburg, 2001, p. 128)

In spite of Salsburg's endorsement of Bayes in medical research, there is considerable controversy over any Bayesian approach and, even among those who use it, there is disagreement over methods. Putnam (1981) points out that the Bayesian school see the problem of inductive logic as the problem of defining a confirmation function, that is, a probability function which will determine the mathematical probability of each one of the hypotheses relative to the observational evidence or, in other terminology, the "degree of support" the evidence lends to each of the alternative hypotheses.[43] Miller (1987), in a thorough review of the approach, as applied to choosing among rival hypotheses, argues that, while helpful in choosing from hypotheses about the mix of red and blue marbles in an urn, it has not resolved a single scientific dispute.[44] He says:

> Bayesian reasoning does guide us in choosing among hypotheses about the mix of red and blue marbles in an urn, on the basis of sample drawn from the urn—if we know that the marbles are uniform and thoroughly mixed after each drawing. However, when we choose among hypotheses in important scientific controversies, we usually lack such prior knowledge of causal structures, or it is irrelevant to the choice. As a consequence, such Bayesian inference to the preferred alternative has not resolved, even temporarily, a single fundamental scientific dispute. (Miller, 1987, p. 269)

Miller claims it is a mistake to view the confirmation process of theories, models and hypotheses as some lonely encounter with the evidence (as

occurs all the time in research in marketing) instead of viewing the confirmation process as the process of comparing rival explanations to select the one that seems to offer the best explanation. The comparing of causal explanations, for example, does not lead to endless evaluations since, he claims, the set of rival candidates is typically very small. However, not everyone quite agrees. Feynman (1965), a Nobel laureate in physics, would modify this in that he says every theoretical physicist will know of six or seven different representations for exactly the same physics.[45]

The Bayesian approach is tied to the concept of personal or subjective probability (what we personally believe the probability to be) and so raises the questions of the validity of the concept of subjective probability. The development of subjective probability owes most to the work of Ramsey (1931),[46] Savage (1954)[47] and de Finetti (1964).[48] Subjective probability contrasts with the view of probability as the relative frequency of occurrence of some happening. The concept of subjective probability is basic to Bayesian statistics and decision theory in general. 'Decision calculus', which is pervasive in texts on decision making, rests on estimates of subjective probabilities given by the decision maker. Thus if the marketing manager is asked to estimate the likely sales resulting from a 50% increase in expenditure on advertising, he or she is likely to rely on subjective probabilities. When subjective probability estimates are equated with degrees of belief, degree of belief is commonly measured by the odds a person is prepared to accept in a bet. Popper (1972) regards this as incredibly naïve:[49]

> If I like to bet, and if the stakes are not high, I might accept any odds. If the stakes are very high, I might not accept a bet at all. If I cannot escape the bet, say because the life of my best friend is at stake, I may feel the need to reassure myself of the most trivial proposition. . . . (Popper, 1972, p. 79)

The strength of belief and the confidence we have in a belief are not the same. Additional evidence may increase the strength of a belief in the sense of making it harder to stop believing it to be true, but this may not increase the confidence in the belief in the sense of willingness to act on that belief. Although some distinction along these lines was made by J M. Keynes, it is not always clear which of these is meant when we speak of degrees of belief. Those who claim that subjective probabilities capture what actually happens in managerial decision making argue subjective probabilities represent degrees of belief in an outcome. Since it is impossible not to have a degree of belief in any outcome, it is always possible to provide a subjective probability. This argument supports the claim that subjective probabilities are those most used in practice. But, in whatever way 'degree of belief' is interpreted, there is no evidence that the degrees of belief in an outcome satisfy the probability calculus (Kyburg, 1983).[50] Managers may assign a probability but this does not mean they had any

such probabilities in mind until asked. Subjective probabilities can always be elicited but, unless tied to relevant experience, may be no more meaningful than the number on the next bus.

The question is whether subjective probabilities are reliable or possess predictive validity. The fact is actual subjective probabilities vary with the method used to elicit them. Commenting on this, Elster (1989) points out that if we were truly measuring something in the person's mind, the result should not depend on the method of measurement.[51] Since it does, the probability is an artifact of the procedure. Kahneman and Tversky (1972) point out that people do not even have a consistent view of what different probabilities mean, and actual subjective probabilities are no foundation for mathematical modeling that is meant to reflect the real world.[52] This view, if accepted, would be a devastating blow to the quantitative decision-making literature.

Subjective interpretations of probability vary from one person to the next. There is no way to resolve differences except by changing to another type of probability (e.g., the relative frequency view of probability). If the technique cannot be demonstrated as reliable, predictive validity is automatically suspect. What we know about using subjective probabilities does not increase confidence in their validity. Thus Tversky and Kahneman (1973) found subjective probability estimates relate to the availability of items in memory with the result that people (say) overestimate sensational cases (e.g., of airplane crashes).[53] We could insist that subjective probabilities be based on experience and knowledge. But how can this assertion be verified unless such knowledge is set out?

Managers will have reasons for supporting their subjective probabilities but such reasons may or may not be reasons that would be accepted as supporting evidence. Could it be that subjective probability estimates might best arise from thought experiments? Kuhn (1973) points out that, if thought experiments are to be successful, nothing about the imagined situation must be entirely unfamiliar or strange.[54] Do expenditure levels and promotional campaigns, say, never before experienced, meet this requirement? Thought experiments embody no new information about the world, so the addition to knowledge is limited to deductions and corrections of conceptual errors.

Uncertainty is a fact of life but some are questioning whether probability theory will remain the dominant methodology by which to tackle uncertainty. As Elster (1989b) says, we simply hate to admit uncertainty and indeterminacy in decision making. Rather than accept limits to reason, we prefer "the rituals of reason" and, wanting to have reasons for what we do, we create reasons where none exist.[55]

At the beginning of this chapter we referred to abduction as the method of Sherlock Holmes. We might recall that Sir Arthur Conan Doyle, his creator, was a medical doctor, a profession in which abduction is a diagnostic method. A recent book by a Harvard professor of medicine,

Jerome Groopman (2007), entitled *How Doctors Think,* makes this clear.[56] Groopman points out, though, how even the best of doctors can misdiagnose, drawing the wrong explanation from the data. Under emergency conditions, abduction may not be undertaken, falling back purely on experience. The doctor assimilates the medical information and, as he or she does so, 'pattern recognition' takes over. Klein (1998), in *Sources of Power: How People Make Decisions,* shows how experienced fire commanders and similarly placed decision makers evaluate situations, even if they are non-routine ones, as examples of a *prototype* which point to what action to take.[57] They see a *recognizable pattern,* suggesting a prototype that fits the situation. 'Recognizable' since there is always some pattern to any data, just as I might see a pattern of a face in the rocks though others would not unless it is drawn to their attention. Pattern recognition in problematic situations is a skill honed from experience. If the prototype that comes to mind matches the situation, an immediate choice is made. A doctor faced with a medical problem may fall back on the prototype that comes to mind, leading to an immediate diagnosis. No further investigation is undertaken. Klein calls this *Recognition-Primed Decision Making (*RPD), though a better term might be recognition-primed *choice* since no deliberation on trade-offs is involved. Groopman also mentions the *availability rule* where a doctor in diagnosis selects the explanation or diagnosis that is nearest to hand, after which *confirmation bias* arises where the doctor selectively chooses 'facts' that corroborate what he or she is now prone to believe.

7 Interpretation of Words, Symbols and Behavior (Text Hermeneutics)

INTERPRETATION OF WORDS: SIGNIFICANCE AND/OR INTENTIONS

In interpreting a text for meaning, the focus is typically on the *significance* of what is said or gauging the *intentions* of the author. Thus in asking the meaning of *Macbeth* (if an answer has to be given for the whole text), it might consist of the text's significance for the reader and/or perhaps the intentions of Shakespeare in writing the play. If we view an ad as a text, the meaning for the marketing academic might be in terms of its significance to the target audience and take it for granted that the intention of the 'author' is to persuade.

In the interpretation of individual words or sentences we take account of what is denoted and what is connoted. John Stuart Mill (1806–1873) distinguished *denotative* meaning, what the word or statement denotes, from *connotative* meaning, what connotations the word, phrase or sentence conjures up. Gottlob Frege (1848–1925), the founder of modern mathematical logic, made a similar distinction as Mill in speaking of Sinn and Bedeutung (sense-meaning and referential-meaning). Frege argued we should not ask for the meaning of a word in isolation, divorced from context. If we do (as we commonly do), respondents are inclined to answer by describing the instantaneous mental images that are conjured up on hearing the word. Respondents fall back on what is immediately available in the mind, which may be very different from the mental images anchored to some context. We typically ask about meanings (e.g., what a certain brand signifies for the consumer) without the question being tied to a context. Frege refers to the corresponding mental images as the 'coloring' of the word, with the same word likely to have a different coloring in different contexts. The image is likely to be different in different contexts (various classes of store, different times, different moods) and for different consumers. A brand image is not likely to be a fixed, unchanging image, as the image is likely to be different for different people, in different contexts, at different times and even different at the point of sale. An overall brand image is a composite and marketers would be wise to talk and measure that image only for a group defined by a specific context.

Meaning is always tied to context. Thus the word 'race' can refer to human groupings or to an athlete's competition, depending on context. The meaning of words can be tied not only to situational context but to cultural/historical context in that cultural influences or background context is needed for understanding. An example of cultural context being needed is a friend from America looking up at a billboard in London and seeing the words *Take Courage*. He assumed it was a government exhortation, a left-over from WWII. In fact, it referred to a well-known brand of beer! An ad for Subaru asks: 'What makes a Subaru, a Subaru? Subaru. Here we have two distinct meanings of Subaru, the first is the name of the car while the second refers to the company behind the car.

Interpretation of Action

Intentional action is purposive action which is instrumental to achieving goals. When it comes to interpreting intentional action, it is its *significance* for the person; significance in terms of the wants, beliefs and *intentions* that lie behind the action. If we ask the meaning, we talk about intention in buying, the reasons (wants and beliefs) lying behind buying and/or the perceived significance of the purchase for enriching the life of the consumer. We might also ask about the *expressive* meaning of the action, though some might argue this is a sub-category of the significance of the action. In any case, action that is purely expressive contrasts with instrumental action since it has no purpose beyond the expression of feelings, though the action may impact others even if this is not the intention.

Reasons for Action

Analytic philosophy's theory of action equates the meaning of an action with the reasons for carrying out the action. In other words, the meaning of an action is tied to the reason-giving explanation, showing the action to be purposeful and intelligible given the circumstances and the agent's wants, beliefs and intentions. The reasons for action relate to the meaning of the action in the sense of the significance of the action and the intentions lying behind the action. To take an action is like saying we *believe* the action is significant for our wants/goals/purposes and, as a consequence, *intend* to take the action.

Action as Rule-Following

Action can be viewed as rule-following as if people are chess players writ large. There are overall rules for the game of shopping which set constraints on what would be socially appropriate behavior. On the other hand, individual actions (as with moves in chess) would not typically be predictable even though each action was intentional and backed by reasons.

The interpretation of action might draw on the 'sensitizing concepts' developed by the social sciences, sensitizing because they sensitize us to phenomena we might otherwise not have noticed. Some practitioners in the interpretive disciplines warn against using social science concepts on the ground that there is a need to understand people in terms of their own self-understandings and so drawing on the concepts people themselves use to describe their actions. But knowing the meaning of an action as described by those taking the action may not be all the understanding that is sought. We may seek a *fusion of horizons* by bringing our own stock of concepts to help in interpretation. There may also be a need to consider the *causes* of behavior. On the other hand, interpreting the meaning of action in terms of significance and intentions, while explicating the reasons (wants, beliefs and intentions) for the action, may be all that is required to explain buying in the way most useful to management. This is because the type and depth of explanation sought depends on our purposes.

If we can gauge the relevant wants and beliefs in the context, we have a general format for making actions intelligible. But no observation of an action points unambiguously to the wants (motives), beliefs and intentions that lie behind it. This is why the concept of 'revealed preference' so prized by economists is of little value to a psychologist. Little can be understood in general from just watching the actions of actors, if they are speaking in a language we do not understand. We say 'generally' because the old silent films were designed to make clear the intentions of the actors. In law the question of intent can be important but there is no way of identifying intentions without knowledge of context and much else. Lying behind intentions are motives, beliefs and circumstances but these may not be known, so intentions are judged from what are considered intention movements, personality, and past behavior.

Hermeneutics and its Origin in the Search for intentional Meaning

Hermeneutics centers on interpreting 'meaning'. But there are many senses of meaning.

(a) *referential-meaning* that a word's meaning is what it names or stands for in the real world.
(b) *sense-meaning* focusing on significance for the agent and/or intentions
(c) *ideational* meaning that the meaning of words reveals ideas or thoughts.
(d) *meaning-in-use* meaning as the way a term or phrase is used in some context or language game: "Don't ask for the meaning, ask for the use".
(e) *causal* meaning that explains the meaning of a word or sentence in terms of its effect on the hearer.

(f) meaning associated with logical positivism whereby a sentence's meaning is the method that is used to verify its truth.
(g) *truth-conditions* where to give the meaning of a sentence or phrase is to give the truth-conditions under which it is true. Thus to say that it is 'as if' we act as per the multiattribute model in decision making requires us to state the truth-conditions for the 'as if' to be asserted.
(h) meaning equated with the *reasons* given for an action.
(i) *expressive* meaning whereby meaning is equated with the expressive (non-instrumental) nature of action.

Hermeneutics is the theory and practice of text interpretation. The origin of the word is the Greek 'hermeneutikos' for interpretation and, as originally used, applied to the discovery of hidden or localized sense-meanings in sacred texts such as the Bible. The lacunas, vagueness and ambiguities of the Bible necessarily make for openness in interpretation. Interpreters of the Bible ferret out the different voices and perspectives within the Bible, resulting in multiple possible meanings (Kass, 2003). The hermeneutical approach was followed by the most influential of church fathers like St. Augustine (354–530) and also by the great Islamic philosopher Alfarabi (870–950). Cummings (2003) claims religion and literature cannot be separated when reading the culture of the sixteenth century, as both rely on hermeneutic interpretations.[1] How the Bible was to be interpreted was the major issue in the Reformation and the hermeneutic ability of rival theologians was fundamental. *The Economist* makes the comment: "it is not the Bible itself to which they are giving a virtually divine status, but their own, arbitrary interpretation of the text, which allows no debt to the spiritual labours of past generations".[2] People are apt to pick and choose from the Bible what suits them and ignore what does not (Ward, 2004).[3] This also occurs in the reading of research findings. Arbitrary selectiveness is built on a desire for coherence with existing beliefs and the desire for solidarity emanating from subscribing to a common doctrine.

A radical perspective on the Bible is that of David Hume (1711–1776) and other thinkers who repudiate the supernatural edifice on which the Bible is based. Far from suggesting a more sophisticated hermeneutics for interpreting the Bible, Hume's perspective on the Bible was as a temporal fashion reflecting as it did the beliefs of a primitive tribe living in uncivilized times so that no amount of reinterpretation could bring forth any infallible message. Attitudes to religion reflect different perspectives. As McGrath (2004) says, atheists like Richard Dawkins, a brilliant expositor of neo-Darwinism, views religious faith as 'belief in spite of lack of evidence' in contrast with McGrath's own view: faith as a conviction based on adequate evidence that leads to emotional confidence and willing consent.[4] Much depends on what is regarded as evidence; restricting evidence to 'hard' empirical facts will not do, not only because reason

and feelings can play a separate role but because the 'facts' are not straightforwardly transparent.

There are similar problems in interpreting the Koran. Aslan (2005) discusses the centuries-old dispute between rationalists and traditionalists over the interpretation of the Koran.[5] For the traditionalists, there is one reading of the Koran, fixed and eternal with its teaching applying to all Muslim communities for all time. In contrast, the rationalists accept that the Koran is the word of God but is also a historical document whose meanings change through time. Aslan says this internal struggle between traditionalists and rationalists is ongoing and of more significance to Muslims than any holy war against the West.

Interpretations of the United States Constitution by the Supreme Court can appear bizarre on occasions. Thus the Supreme Court in the infamous Dred Scott *v* Sandford prohibited Congress from dealing with slavery while in the Plessy *v* Ferguson the Supreme Court found racial separation was constitutionally permissible.[6] It is not surprising there is concern with judicial appointments to the U.S. Supreme Court, as few believe that the interpretation of the Constitution is entirely objective, value or bias free.

Although hermeneutics is commonly viewed as the interpretation of written texts, it covers the interpreting of anything at all, since everything can be regarded as a 'text' for interpretation. The word 'text' can cover any form of communication and any type of behavior. The term is now extensively used in the social sciences by those who view social science methods as more akin to hermeneutics than to those employed in the physical sciences. In this book the interpretation of action is discussed under *text* hermeneutics, but if interpretation occurs from the perspective of a model, theory or paradigm, the term 'imputation' is used, since we see if we can impute to those taking the action a way of behaving in line with the conceptual lens provided by the model, theory or paradigm. In other words, we see whether, and to what extent, we can apply our theoretical orientation to explain the data collected. On the other hand, in considering the interpretation of objects (e.g., products), the term 'artifact' hermeneutics is used as being more apt.

Hermeneutic Circle

Many attempts have been made to find a set of general principles for the interpretation of texts as a foundation for hermeneutics. Friedrich Schleiermacher (1768–1834) conceived the 'hermeneutic circle', which stresses interpreting the parts of a text by reference to the whole, and understanding the whole by reference to the parts. This posed the problem of knowing where to start, but Schleiermacher argued the problem is resolved intuitively by a 'leap' into the circle, moving from parts to whole and whole to parts in an iterative way. The hermeneutic circle is part of today's hermeneutics.

Clifford Geertz (1987), the anthropologist, endorses the hermeneutic circle, arguing it is central to ethnographic interpretation and to the penetration of other people's modes of thought, as it is central to literary, historical or biblical interpretation.[7] Ethnography uses *direct* observation for the collection of data in studying social groups or places of activity. The ethnographer looks, listens, asks questions and records all that appears relevant. Geertz adopts the role of the ethnographer in studying cultures, viewing what occurs as a text for analysis. This is an approach adopted in studying the buyer or consumer. It contrasts with being a 'participant observer' with a defined role in what is happening. The participant observer role is also becoming common in market studies in the service industries.

For Geertz, doing ethnography is like trying to read a faded manuscript in a foreign language, full of complications giving rise to vagueness and ambiguities. In his hermeneutics he draws on sensitizing concepts from social science. For instance, in his interpretation of a Balinese cockfight, he sees it as essentially a dramatization of the *status* concerns among the Balinese. Geertz rejects any notion that ethnographic data emanate from a process of induction, but stresses interpretation acting as a filter.

Empathy and Wittgenstein's Focus on Language Games

A common claim is that a person needs 'empathy' to successfully interpret the behavior of others. The traditional definition of empathy is 'feeling oneself into' (or 'putting oneself in another's shoes') in contrast to 'sympathy', which is 'feeling with'. Max Weber (1864–1920) argued that understanding others stems from empathy or the ability to put ourselves in the shoes of another. The Max Weber view of empathy was *verstehen*, a view promoted by Collingwood (1946) in history that saw identifying the meaning of action with trying to relive the thoughts of the agent.[8] Relieving the thoughts of the agent is roughly equivalent to feeling oneself into the other's position.

For Fay the interpretation of behavior is more like deciphering a poem than seeking some inner mental union with the author.[9] Stueber (2005) does not agree and claims that empathy as traditionally conceived is necessary for our folk-psychological understanding of others and he seeks to rehabilitate the concept as originally proposed.[10] Even though it has certain limitations, he argues, it is still the central 'default mode' for understanding others.

Charles Taylor (1964) subscribes to the deciphering of a poem viewpoint for which he would still adopt the term *verstehen*. He distinguishes this conceptualization of verstehen from traditional empathy with his verstehen defined as the 'set of intersubjective meanings that constitute social life, to be grasped not by empathy but through interpretation'.[11] This definition of verstehen relates to Wittgenstein's concept of language games. Wittgenstein points out that having intersubjective understandings among people is

made possible through sharing a common social world. Wittgenstein uses the metaphor of the 'game'. Our own and the actions of others are moves in the various 'games' of social life. Language is composed of interconnected language games that collectively represent forms of social life. Actions can neither be identified nor interpreted correctly except in terms of the game into which they fit and the concepts the game employs.[12] In playing the games of social life, we are all rule-followers even if the rules are open-ended so as to deal with new cases in the course of play.

The adoption of the viewpoint of Taylor and Wittgenstein would suggest *listening* to a wide variety of consumers in a target customer group, as the cultures to which we belong are not populated by people who are tokens of each other. Leo Bogart (2003), after a long career in marketing research, stresses the kinds of ideas and insights that come from listening to informants individually and in depth.[13] He tells us that experience has taught him there are no sure formulas for marketing success but only one formula for failure and that is a reliance on formulas.

Hermeneutics, Heidegger, Gadamer and the Fusion of Horizons

Martin Heidegger (1889–1976) moved hermeneutics away from the Schleiermacher concern with psychology to the question of 'being in the world', a world whose very strangeness demands interpretation. As pointed out in an earlier chapter, *phenomenology* is the study of 'reality' as experienced (to give a phenomenological account of S is to say how S is experienced). Heidegger claims phenomenology is a hermeneutic discipline. He reformulated the hermeneutic circle not as a problem to be resolved by an intuitive leap into the circle but as interplay between the traditions reflected in the text and the interpreter. Hans-Georg Gadamer, a student of Heidegger, argues this reformulation acknowledges the interpreter is not neutral but positioned vis-à-vis the tradition 'out of which the text speaks'.[14] The interpreter's own slant on the tradition in the text is part of the interpreter's 'horizon', set against the different and possibly distant 'horizon' of the text. He claimed that what is needed is a *fusion of horizons* of text tradition and interpreter.

Gadamer is the major figure in 20th-century hermeneutics, a position established by his *Truth and Method*.[15] But Gadamer goes further in arguing that hermeneutics is dominant in science as well as cultural contexts. Like many philosophers, Gadamer speaks of *understanding* actions rather than explaining them to emphasize what he considers the difference between the natural and the social sciences. He rejects the notion of objectivity and open-mindedness in interpreting action on the ground that it is only our preconceptions that make the understanding of others possible. It is not possible to interpret in a completely objective way. The mind is not a *tabula rasa*, a clean slate upon which experience records impressions without distortion. Understanding others arises not from abandoning our own

set of meanings or trying to put ourselves in another's shoes. Any depth of understanding will only arise from *fusing*, or integrating our meanings with those meanings we want to understand. Gadamer calls this the *fusion of horizons*. But if 'fusion' carries the notion of the horizons becoming one *single* unity, this is *not* what Gadamer has in mind. He accepts a tension is likely to remain since whatever is being interpreted may reflect a different context and different conceptual perspective than that of the interpreter.

Gadamer's view leaves no room for the traditional approach of reaching back to the time of the action to understand people's minds at the time and context. Gadamer argues that, while the text parts constitute the elements to be interpreted, the whole is best viewed as a relationship between these elements (parts) and the *different audiences* that undertake the interpretation. Closing the hermeneutic circle links author, text and readers. As such, the meaning of the interpreted elements will differ with different interpreters. The various interpretive audiences and the actions being interpreted form an interacting system; new interpretations of the action change the viewpoint of the interpretive audience while this new viewpoint leads the interpretive audience to re-interpret the meaning of the action.

For Gadamer, it is inadequate to simply recover meanings in studying an alien culture, since the real need is to illuminate that culture by fusing its concepts with one's own way of thinking. It is the interplay of the social scientist's own perspective and set of beliefs and those being studied that gives rise to depth of understanding. In studying the consumer it is the interplay of the researcher's set of concepts and beliefs and those of the consumer that result in understanding. Whether the meaning of interest is significance or intention, it is not static but varies between interpreters and with the same interpreter at different times or within different contexts. This is also true for interpreting the meaning of ads; context, like location, is important, as is the time of day. Someone at home doing the housework in the morning does not view an ad on TV as someone would in the evening after dinner.

For Gadamer, the meaning of action is never fixed in stone since the meaning of action changes as new interpreters come along and new perspectives come on board. He opposes simply going back to the original historical meaning, since just to understand historical meanings is to fail to perceive the possible truth for us at present. It amounts to the recovery of dead meaning. Thus to understand Plato's *Republic* is not a matter of understanding the way Plato understood the *Republic* but for us to be induced to think deeper about the issues raised by Plato's text. There needs to be a 'conversation' between text and readers whose prior perspective (and prejudices?) makes up their horizon of understanding, something that is apt to change as it melts in with the horizon of the text. The total effect is to bring about a new understanding.

Those who focus in social science on interpreting the meaning of action tend to focus on intentions lying behind the action and/or on the significance

of the action for the agent. Contrary to postmodernism, many problems require knowledge of the author's intentions: concern with 'intention' in law manifests itself when stressing the underlying purpose of the legislation as opposed to a literal interpretation. No law has a single, unambiguous, objective meaning, so students study the law as interpreted by judges, not just the written law. On the other hand, meaning in the sense of significance is all-important for many policy issues. What does it 'mean' is often equivalent to asking what significance does it have for us. 'Meaning' in the sense of intentions and 'meaning' in the sense of significance are both important depending on the problem addressed. Gadamer's fusion of horizons would enter into interpreting a person's intentions while intentions enter into assessing the significance of an action, as it does in law

WHAT ARE WE TRYING TO DO?

Instead of asking, as Schleiermacher does, how do we go about doing hermeneutics, we first ask, What are we trying to do? As originally conceived, hermeneutics sought the *recovery* of intended meaning, which came to be understood as the self-understanding of the authors or actors being interpreted. But of more interest in buyer behavior are the concepts employed as a guide to the rules being followed and the beliefs, wants, actions and practices that collectively cohere and make sense in terms of way-of-life being studied.

Interpretivism and Intentionalism

Alfred Schutz (1967) was the first social scientist to argue that all human action is intelligible within the context of each person's mental representation of the world, but, in order to understand a person's mental representations of the world (or perspectives on the world), there is a need to explore the concepts people use to describe and structure their environment.[16] This is in line with what Winch, mentioned in earlier chapters, has to say.

Peter Winch, in *The Idea of a Social Science* (1958)[17] and in subsequent articles,[18] argued that to interpret the actions of others is to find their actions intelligible. This might seem rather obvious but Winch claims anthropologists wrongly look for *instrumental* rationality instead of looking for the *intelligibility* in the action from the point of view of the agent. But what is intelligibility? Winch maintains the notion of intelligibility is not fixed but varies depending on the way-of-life being investigated. Nonetheless, he endorses the claim that there are common standards of reality and common aspects of rationality present in all cultures. (Indeed, if we accept Darwin, there must be some commonality in rationality throughout the world.) On the other hand, Winch argues that notions of rationality are tied to a culture or way-of-life.

For Winch changing perspectives, as a basis for changing minds, means focusing on changing concepts on the ground that changing concepts is basic to changing action because concepts mirror rules being followed. For Winch, actions are a reflection of the concepts people employ and types of action presuppose types of concepts. If we say we bought that particular brand of laptop computer because it appeared the most robust, it is in the concept of robustness that we find the rule being used: other things remaining equal, I buy that brand that is most robust. We rightly talk of persuasion changing minds through the use of metaphor but seldom think in terms of listening to those we want to persuade and noting the concepts they use, realizing that understanding these concepts may be the first step in the process of persuasion.

Winch does not regard actions as caused. In the physical sciences, he argues, an antecedent causal event is logically and conceptually independent of its effects. Thus "if metals are heated, they expand," we find the heating of metals to be conceptually independent of their expansion. Winch claims that this logical and conceptual independence is the distinguishing feature of a causal science but is absent in the field of human action. This leads Winch to reject the type of empirical research concerned with testing hypotheses by checking whether predictions correspond with reality. He argues that what is needed are better and better interpretations:

> To give an account of the meaning of a word is to describe how it is used; and to describe how it is used is to describe the social intercourse into which it enters. (Winch, 1958, p. 123)

Winch's position is that of *interpretivism;* to understand others it is necessary to understand them from their own point of view via understanding the concepts they use. Interpretivism is the process of reconstructing the self-understandings of others, commonly their 'intentional states' (Fay, 1996). Interpretivism augments *intentionalism* that the meaning of any action depends on the author's conscious intention in taking the action. The weakness of intentionalism lies in assuming *conscious* intention, when unwrapped, captures all relevant motives and their relative significance. Although we attribute similar motives to people in all cultures and at all times (without which much of history would be out of bounds), people in different cultures at different times weight motives differently and differ in what circumstances give rise to various motives.

With the focus on structured questionnaires in marketing research, we neglect to listen and record the words people use before they buy, during buying and after buying to identify and explicate the concepts consumers use. As Schutz and Winch claim, the concepts people employ are a guide to the rules they follow.[19] Schutz reaffirms the view that the social scientist should not displace the commonsense concepts of ordinary people. We need to identify the concepts used by the consumer in the specific context

of interest, even if sensitizing concepts from social science are additionally employed for further understanding.

Because Winch maintains that standards of rationality are tied to a particular way-of-life, Shelby Hunt (1991), in marketing, accuses him of advocating relativism.[20] Winch explicitly rejects relativism on the grounds that, to abandon checks against an independent reality, is to plunge into an 'extreme Protagorean relativism with all the paradoxes it involves'. Winch is asking us to seek understanding from the 'native's' point of view, and he is not claiming all versions of rationality are equally as defensible or that all cultural practices are of equal worth. The relativist belief that cultures are equal in merit has led people to defend behavior that would otherwise be regarded as evil (Sandall, 2002).[21] A further accusation leveled against Winch is that he turns social science into conceptual analysis. This is a more defensible accusation but not entirely true. While he takes Evans-Pritchard, the anthropologist, to task for not taking seriously enough the claim that the concepts used by primitive peoples (including the concept of what is rational) can only be interpreted and understood in the context of the way-of-life of those people, he also points out that concepts tied to understanding some cultural group cannot just be analyzed in a cultural vacuum as concepts are in analytic philosophy.

Winch insists his approach is rooted in analysis of meanings tied to the institutions and social life of the culture. For Winch, the job of those interpreting another culture or subculture is not to *reconcile* the culture's standards of intelligibility with the interpreter's own since the one may exclude the other, but to study another way-of-life so as to extend the interpreter's own understanding of cultures. We extend our understandings by making room for the concepts of other cultures to learn of different possibilities, and the different ideas about the relative importance of various values and activities in different cultures. In studying consumers, marketers can listen to the words used by the consumer to discover the key concepts and the rules of shopping implied (O'Shaughnessy, 1986).[22]

Propositional Attitudes

In philosophy, *intentional* states (and indeed all psychological states) are called *propositional attitudes:* they are statements *about* something, just as beliefs are *about* how we think the world is, wants are *about* how we would like the world to be and purposes *about* what we want to do. Beliefs, desires and other mental states exhibit intentionality because they are *about* things. We have beliefs *about*, we think *about*, dream *about* and so on. Intentionality carries the notion of the mind having content that is *about* something, though the object of which it is about need not be real but pure fantasy or illusion. When the adjective 'intentional' is used in philosophy or intentionality, it is being used in a technical sense to indicate beliefs, fears, hopes and so on that are *about* various things. This contrasts the use of

'intentional' in everyday usage, where we use intentional as characterizing something done with a purpose.

Propositional attitudes are sometimes ascribed to inanimate objects, as when there is talk about, say, the washing machine seeking to frustrate us! This anthropomorphizing of attitudes to products by consumers is undertaken to draw products into the consumer's way-of-life, to make them closer and more understandable. It is easier to get engaged with something we understand in human terms. Once we accept that the contents of an intentional state are accessed and described by knowing how they are conceptualized by the people themselves, it follows that the *concepts* used to describe human actions must be at least partly drawn from the cultural life being investigated—by analyzing the concepts used by the consumers themselves.

Hermeneutics of Suspicion and False Consciousness

In the recovery of meanings, hermeneutics assumed there would be no attempt to deceive and no self-deception at work. In contrast, the postmodernist Paul Ricoeur (1981) views the task of hermeneutics as uncovering what is *not* said (behind the scenes) rather than seeking to recover meanings in what is said. Ricoeur calls this the *hermeneutics of suspicion,* whose advocates have included Nietzsche, Marx and Freud.[23] The hermeneutics of suspicion is less concerned to clarify than to demystify, since the self-understanding of the actors themselves can be flawed. The hermeneutics of suspicion aims to 'liberate' subjects by unmasking the meanings that social and legal practices mask. The self-understandings of consumers can be flawed as self-deception and the 'needs' of 'impression management' can be dominant. There is room in marketing for a hermeneutics of suspicion.

The hermeneutics of suspicion is an attack on the notion of objective truth, as claims to objective truths can be fronts for vested interests. Ball and Bellamy (2003) claim that the whole of the 20th century has been characterized by the hermeneutics of suspicion, with skepticism about the way histories are narrated, accompanied by an acute recognition of the many ways history can be constructed.[24] It is claimed any culture can be the repository of what the followers of Marx call 'false consciousness'. 'False consciousness' does not refer to how the unconscious can mislead but to how those in power can get people to believe things that are false and against their best interests. False consciousness is said to be shaped by the interests of the ruling classes and is false in being in contradiction to the prevailing modes of production and productive relationships. Gramsci's theory of hegemony has relevance to all this.[25] Although all governments have coercive power, Gramsci, who was a victim of Mussolini's Italy, argues that, even for a totalitarian regime, this is inadequate for achieving control over its citizens. All government rule must be based on consent but that consent can be manipulated. There is this desire for 'hegemony' where

power is based on creating cultural and political consensus by creating 'false consciousness' through the formation, via the media, of a dominant ideology or ideologies. The media is important in persuading people to be consumers and an influence in interpreting advertisements.

False consciousness is not a defunct concept, as Thomas Frank (2004) shows in looking at the voting patterns in the poorest county in the United States. This is where 'conservative voting' dominates, against the voters' material self-interest.[26] But this need not be the only interpretation since, as Frank recognizes, it presupposes that economic interests will be pre-eminent in electing governments or that people do not understand the economic consequences of putting in one government rather than another. There are other values that may dominate. What people believe is not just determined by the media (in the European Community, people have voted against what the government and the media were advocating, e.g., the European constitution) but other influences and their own reflections on what they consider to be their self-interest. Nonetheless, although people will not believe black is white just because others claim it is, many voters come pretty close when endorsing the party line. Loyalty to party by a significant minority suggests to them not merely consistency in action but constancy in values.

Gadamer vigorously rejects equating understanding of others with unmasking vested interests. For Habermas (1974), on the other hand, the hermeneutics of Gadamer is a 'sterilized' hermeneutics in that it removes the traces of vested interests that a more critical evaluation would uncover.[27] Habermas claims hermeneutic understanding is never free of bias and there are also non-linguistic forms of human understanding.

EXPRESSIVISM

Both the hermeneutics of recovery and the hermeneutics of suspicion focus on interpretation based on the assumption of instrumental rationality. But as already pointed out, Charles Taylor (1987) contrasts this instrumental interpretation with *expressivist* interpretation, where the focus is on what a text expresses, whether feelings, beliefs or whatever.[28] To show, for example, indignation at injustice is to express feelings and values. Expressive actions are an end in themselves. Many activities (e.g., particularly in sport) are commonly undertaken with no end in view beyond being pleasurable or expressive of other values. In interpreting action, there should be this recognition that actions need have no purpose beyond the feeling emanating from undertaking the action itself or at least recognizing there is an expressive dimension to the action.

Taylor (1987), as we have previously said, reminds us that expressive 'meaning' has become more urgent with the rise of non-representational painting, and of music which steps outside the fixed code of the eight-tone scale. Expressivism in art mirrors the development of new modes

of expression which, in turn, generate more self-awareness and new and novel feelings. Expressive meaning is not revealed by looking at parts and relating them to the whole and vice versa as per the hermeneutic circle but through attempting to grasp the whole as occurs in looking at a work of art. The meaning of many exciting products to the consumer is not grasped by drawing attention to individual attributes but by focusing on the *experiential* aspects of owning and using the product (see Holbrook and Hirschman, 1982).[29] These experiential meanings are not instrumental but ends in themselves. In fact the experiential aspects of a product may not enhance the product's use-function in any way. The battery-operated razor introduced by Gillette does not give a better shave but some shavers just seem to like the feel of using a battery operated razor.

There are instrumental reasons and expressive reasons for buying a product. With instrumental reason, actions are chosen that are considered to be, as in decision theory, the best means to achieve ends, while with expressive reasons, where the action is an end in itself, it is the climbing of the mountain which is of interest, not reaching the top. The meaning of a sign, as an expression of feeling, is not explained by relating the sign to something else. The meaning of such a sign is not in terms of its purpose but what it signifies or represents. An expressive object like a work of art functions as a whole and cannot be broken down into parts to demonstrate the whole is simply the function of the parts. Parts only have significance as part of the whole and the meaning of each part can only be given significance when visualized as part of a whole. Given this is so, decision models are misleading whenever they assume the whole is simply the sum of the parts, where each part only derives its significance in terms of the whole: attributes can emerge that do not emerge when things are considered in isolation. It is the resulting pattern of elements that is important, not the individual parts. Thus it is common in buying a new home to be asked to choose from a whole host of alternatives fixtures, decorative schemes and so on, as if the buyer can visualize how each would fit into the final whole. This may give the buyer a sense of being in control by having the opportunity to customize but seldom will it result in the buyer achieving no post-purchase regret.

"Kitchen Scales" Models of Decision Making

The multiattribute model in marketing, where we list and weight individual attributes to arrive at scores to determine a preference, has been called a 'kitchen scales model', a metaphor used by Dancy (2005) to describe an additive approach to overall value.[30] Our awareness of the overall system can dissolve if we are simply asked to attend to individual elements. Listing all the elements of the whole does not specify the whole system. The overall value to the consumer equals not only the values of the various attributes combined but additionally the value of their being combined that way. The

validity of the consumer's information and inferences are not questioned in kitchen scales models; what attitudes consumers might have under full knowledge conditions and what they display under the model may diverge considerably.

If marketers want to understand how consumers deliberate when buying, they need to observe and listen to how consumers reason through time about the actual choices before them. In other words, a 'natural history' approach is necessary if not always sufficient. Highly rational models of buying are apt to appeal because a degree of rationality is a precondition for understanding all human action. And, as Harman (1986) points out, it would be hard to come up with a *normative* model on how people decide without any link to reality. On the other hand, any description of that reality will necessarily involve selectivity and in this sense any description is normative to some extent.[31] Nonetheless, the normative model can stray so far from reality that it is a caricature of the truth.

Consumers seldom think of a potential purchase in terms of being a sum of attributes but of something that is expressive and/or serves some function. And consumers may not think at all until they see something that activates their want for it. A common assumption is that marketing is concerned with catering to the articulated needs and wants of consumers. As an unqualified assertion it evokes the image of the consumer as a bundle of needs and wants that act as a filter for determining what consumers will buy. But the motivational capacities of consumers are not made up of a fixed set of needs and wants; consumers have latent wants that are activated on being shown what something can do to enrich their life (Campbell, 1987).[32] If sellers could just create wants without their being any underlying appetite for the product, we could just sell them mud pies. Consumers have the capacity to imagine what it would be like to possess/use/consume a product, never used or thought about before.

Entrepreneurship is tied to catering to latent wants, outside the articulated wants of the consumer. Products are sold under description and the specific description can be decisive in whether something is perceived as desirable and appropriate for the situation. How something is described influences perceptions and beliefs about the desirability of the product. How often have we been deceived by the description of an item on a restaurant menu, through a description that excites our taste buds that may not be the reality? We believe or want something under description and this description can blind us to other descriptions of the same thing. But it is beliefs and not just wants that lie behind whatever is bought. It is wants plus beliefs that constitute reasons for buying. While we can deceive someone into buying something, this is different from saying sellers create wants as opposed to activating a latent want. We see things from a perspective and, when we believe something or want something, it is from the perspective of a description. The notion that consumers know exactly what they want, even in advance of experience, without knowing how things will be

presented or described, lies behind representing buying deliberations as per the multiattribute model.

The multiattribute (compensatory) model is sometimes put forward as showing how, *not* how well, people make decisions involving trade-offs. It is meant to be descriptive of the process of decision making where tradeoffs have to be made. While it is true any buying decision can be squeezed *ex post facto* into the model, such are speculative reconstructions. It is also easy in experiments to feed information so as to induce something resembling the process but this establishes nothing about what occurs in practice. The consumer on occasions does make mental comparisons of rival brands but this is a long way from the sort of evaluation typified by such models, which are so unfaithful to everyday shopping experience. Many models of decision making reflect the academic's desire to mold behavior into something highly rational (and therefore more easily teachable) when in fact behavior may be intelligible without approximating the norms of rationality.

As Scriven (1992) points out, the weightings of attributes cannot be given the significance intended, as relative importance is controlled by the number of criteria involved.[33] For example, assume the weights given to the criteria for each product attribute ranged from 1–5 while the ratings given to the alternatives for the amount possessed of an attribute ranged from 1–10, then the most important criterion can only contribute a maximum of 50 points to any one of the products being evaluated. This maximum of '50' can be completely swamped by the accumulation of only 5 minor criteria, each weighted only 1 but each rated a '10' for the alternative being evaluated. There is also the question of the interaction effects, given that the whole is something more than the sum of the parts.

It is difficult to believe consumers build up to what they want from a listing of individual attributes. To list all the attributes of a car would quickly be overwhelming. An offering is a system, that is, a set of interdependent parts that together form a unitary whole for meeting some want or function(s). This means that any attribute only has meaning in terms of the visualized whole. A buyer cannot just think about the size of the car engine he wants unless he already has in mind a vision of the whole car of which the engine will be a part. Also, buying something new is a learning experience, which means the attributes consumers initially claim to be seeking may be considerably modified or abandoned as they learn more about what they really want. Buying, as opposed to filling in questionnaires about buying, can be an emotional experience (even just looking at the packaging) that colors outlooks and prejudices buying decisions.

Few of those buying an infrequently bought product or buying for the first time know exactly what he or she wants and certainly do not have fully ordered preferences. An expressed pre-purchase preference may be no more than a *ceteris paribus*, saying buying will proceed, all else being equal. Buying is a learning experience and initial preferences can be outweighed

or overridden as learning takes place. As Underhill (1999) says, more and more purchasing decisions are being made in the store itself with shoppers being susceptible to impressions and information acquired while in the store, rather than being dependent on advertising.[34] In questioning consumers about future buying, consumers may be being asked about preferences for experiences they have not tried, in conditions outside the emotional context of buying.

Consumers are not given courses on deciding how to decide, so their approaches are far from optimal. Luce, Bettman and Payne (2001) claim in fact that 'importance' is not the only dimension along which people respond to product attributes and that *emotionality* is a separable dimension influencing the responses to product attributes.[35] They remind us of other studies showing that post-decisional regret influences the outcomes of any decision and that how concerns about justifying one's decision to others are major reasons why trade-offs between attributes can be such a problem for decision makers.

Conjoint analysis is one statistical technique used for measuring the relative importance of various attributes to undertake trade-offs (Green, 1990). This approach again makes the assumption that consumers know what attributes they will want and what they want is some sum of *tangible* attributes.[36] As Luce et al. say, the output of a conjoint analysis is a utility estimate assigned to each level of each tested attribute with the utility scales in common units across attributes, allowing for relative attribute importance judgments. Velleman (2000) makes the point that, even if we could establish the equivalence of value between a helping of financial benefit and a helping of physical well-being, these measures of financial benefit and physical benefit would not reflect potential interactions between the values of the underlying commodities.[37] Even when consumers know what combinations they want, their preferences are rarely absolute but conditional. The relative utilities of different attributes are unlikely to be stable and constant but vary with context and even, on occasions, mood. Thus 9/11 had a depressing effect on the public mood in the United States. Again, if the consumer is buying a system of benefits, can an attribute be adequately assessed in isolation when its meaning is tied to its function in the whole system?

To return to the earlier point about justifying a decision, Montgomery (1989) claims that the desire to justify to others and to self- justify a decision can result in a process of cognitively restructuring information for making the decision so that the alternative chosen is presented as dominating its rivals.[38] Whether this is factually correct, Montgomery's description of the decision process is more realistic than those decision processes that assume a highly rational process. He asserts that information search prior to the decision passes through four stages:

(a) Screening where the conjunctive rule operates to eliminate options not having certain attributes.

(b) Choice of a promising alternative defined as that which most commands attention.
(c) *Dominance building* in which the promising alternative becomes the dominant alternative through confirmation bias when assessing the evidence.
(d) Restructuring the problem to choose a new promising alternative if the dominance structuring that has already occurred fails for some reason.

These stages have intuitive appeal but how universal they are, under what conditions, is still a matter of empirical inquiry. We all too often assume that the consumer knows what she wants and interpret behavior accordingly. Hare (1979) doubts this and points to the difficulty of the means-end approach to making decisions whereby it is assumed the consumer's goals are clear and means are selected that best meet that goal.[39] As Hare says:

- There is difficulty in the consumer saying how much of the end in question is *required*. The consumer may have a good idea of what capacity of refrigerator she wants but not what capacity of a car engine.
- There is difficulty in gauging how much of the end in question is being *provided*. The consumer can easily see she is getting a bottle of dishwashing liquid but not how much cleaning power she is getting.
- There is difficulty in undertaking trade-offs when goals or ends conflict. Thus manufacturers need to know how much the consumer is prepared to sacrifice for a lower price.

Hare claims that such difficulties are inherent if we insist on a prior statement of precise ends and argues against attempting any prior precise statement of exactly what is wanted in favor of finding out what is available and evaluating these. He would be against the common practice of assuming the consumer knows precisely what she wants. Asking the consumer to evaluate rival brands has the advantage of not tying up in advance exactly what is being sought and avoids the problem of trying to put a price on, say, comfort in order to make trade-offs using the common metric of money. As an alternative to conjoint analysis (which makes many dubious assumptions about the independence of factors), we might just provide 12 packages/configurations to choose from.

But Wiggins (1978) suggests there is always first a need for the consumer to set goals:[40]

> It is the search for the best specification of what would honor or answer to the relevant concerns. Till the specification is available there is no room for the questions of means. When this specification is reached means-end deliberation can start. (Wiggins, 1978, p. 145)

If we set the wrong objectives we solve the wrong problem, which can be far more wasteful of resources than solving the right problem in an inefficient way. This links to what the statistician John Tukey (who coined the word 'bit' for binary digit and the word 'software' for computer programs) used to say: it is better to have an approximate answer to the right questions than an exact answer to the wrong one. But in respect to consumer behavior, it ignores how often consumers cannot specify what their relevant concerns are, with goals only becoming clearer as they look around at what is available. Even Wiggins goes on to say that, if we seek precise specification, we find ourselves modifying our aspirations by what is available as difficulties turn up in the means-end deliberation, which send us back a finite number of times to the problem of a better or more practical specification. With new purchases, consumers do tend to shop around to see what is available, rent (if possible) rather than immediately buy, or buy in small trial sizes and indulge other tactics that gain experience without undertaking any major commitment.

Hermeneutics and the Natural Sciences

There was once a belief that hermeneutics could, like the natural sciences, be objective in the search for truth. Hermeneutics is under no such illusion today. As Popper (1972) says, there is no such thing as an unprejudiced (objective?) observation.[41] The interpretation of action aims at understanding action. Understanding can be a form of explanation, but this is frequently rejected by those advocating an interpretive social science on the ground that no explanatory laws are sought and understanding does not carry the same logical force as causal laws do in the natural sciences.

Interpretation of Action Concerned With Both Meaning and Explanation

Hollis (1996) regards the question of how actions are to be interpreted as ambiguous. For Hollis the interpretation of action is concerned with both meaning and explanation.[42]

With respect to *meaning*, interpretation covers:

- Overt meaning, e.g., in the case of speech: 'What did he succeed in saying?' *This is the action's meaning.*
- Covert meaning, e.g., what did he intend to say and intend in saying it? *This is the actor's meaning.* With respect to explanation, interpretation involves:
- Overt explanation, e.g., why was the utterance apt? *This is the legitimating reason(s).*
- Covert explanation, e.g., what was his motive in uttering the text? *This is the actor's real reason(s).* (Hollis, 1996, p. 251)

SUMMARY

	Overt	*Covert*
What?	Action's meaning	Actor's intention
Why?	Legitimating reasons	Actor's real reasons

(After Hollis, 1996)

Hollis argues that a complete interpretation of action involves answering all four parts in interpretation and not being confined to the first three which cover significance and intentions: motive must be considered for an interpretation to be complete. In answering the four parts of the question, the interpreter needs to take account of *context*. Thus in answering the first part ('what did he succeed in saying?'), Hollis argues the interpreter ideally cites both the social norms in respect to what a person must, can or may do in the context and any expressive elements that take account of the context.

Interpreting Group Actions Like Group Decision Making

Hollis acknowledges that things are not so simple in group decision making because it is the participants who decide the rules of their relationship rather than being guided by societal norms. Debate about what any decision-making unit (DMU) should do is complicated not only by the uncertainty inherent in all decision making but because of the politics involved in trying to achieve alliances among participants with varying motives or interests. Nonetheless, showing the *collective* rationality of a group decision is to show its rationality, namely, by demonstrating why it was rational for the participants to have pooled their different interests.

In marketing, the concept of the DUM is mainly considered in industrial marketing and often treated as if all organizational decision making has close commonality in all buying decisions. Yet there is light industry, taking small manufactured articles and assembling them into other products; there is heavy industry involving the use of large machines to make objects such as locomotives; there is the chemical industry manufacturing drugs, paints, explosives, pesticides, fertilizers, plastics and so on with some production processes being more like large-scale versions of laboratory processes. And what about agriculture and fishing and services generally? In one of the earliest contingency approaches to organization, Joan Woodward (1965) showed relationships between organization structure and type of industry which she divided into (a) unit and small batch production, (b) large batch and mass production and (c) process production as in the chemical industry.[43] If decisions on organization structure differ with the type of industry, it is reasonable to assume there are likely to be differences in buying decision processes.

On this quality of group decision making, Surowiecki (2004), in *The Wisdom of Crowds: Why the Many Are Smarter than the Few,* says that in a wide variety of circumstances, even the smartest individual can be outperformed by the impersonal group.[44] The judgment of the group can be better than the judgment of any individual within the group even though the judgment of the group is determined by its individual members. This goes against orthodoxy, which claims that group decision making may be better but never better than the smartest individual in the group. Surowiecki demolishes this claim: our prejudice against groupthink or collective mediocrity in favor of the individual genius seems to be unfounded. Surowiecki is not claiming that the judgment of the group will always be best. There is always a danger of groupthink unless certain conditions are satisfied.

1. Members of the group are willing to think for themselves.
2. Members of the group are more or less independent of each other.
3. The group is fairly decentralized.
4. There is a defensible way of aggregating opinions into a collective judgment.
5. The judgment sought is confined to a cognitive and not a moral judgment.

Of relevance here is the concept of shared mental models. Orasanu and Salas (1993) found that effective teams seemed to develop a shared mental model of other participants' knowledge, skill, anticipated behavior and needs.[45] It would seem the overlap or sharing of perspectives facilitates team working while, it goes without saying, that structural secrecy inhibits such sharing.

8 Artifact Interpretation

INTERPRETATION OF OBJECTS (ARTIFACT HERMENEUTICS)

Products are artifacts; man-made to perform some function or provide enjoyment. But the function of a product is what people interpret it to be or what people collectively *accept* as the function, just as we accept the nation's currency as a medium of exchange in paying bills.

The designer use-function of a product is the function for which it was designed, which may not be the one adopted when consumers interpret the product as suited to other functions. A product can have several functions (just think of the many functions performed by Q-Tips cotton swabs) but what functions we opt for depend on our concerns, just as the medical profession focused on the function of the heart to pump blood rather than to make a noise (Searle, 1995[1]). An expressive artifact, such as a work of art, acts as a whole and cannot be taken apart to demonstrate the whole is simply a sum of the parts. Parts of an expressive artifact like a sculpture only have significance as part of the whole (system) and the meaning of each part can only be given significance when visualized as part of a whole.

If the function of an artifact is to stand for something abstract but meaningful (like the nation's flag), the function is to act as a *symbol*. This symbolic function can be more important than a product's core use-function when, for example, someone buys a library of books, not to read, but as furniture or to symbolize an educated man. "We don't sell cosmetics, we sell hope" (attributed to Charles Revson, the founder of Revlon) is announcing it is not the product's benefits as much as what it symbolizes to the consumer. New management of a men's club dispensed with individually neatly folded hand-towels on the ground they were not much used, not understanding their presence in the men's room symbolized the status of the club. Taking someone to a restaurant with outrageously high prices may not be on account of the food or because of the ambience or service but because those high prices symbolize status and what a person thinks of his guest.

What the consumer buys is not a product per se but the total offering: right product, right price, right distribution and right promotional image:

all being right from the consumer's point of view. All are involved in meeting or exceeding customer *expectations,* which is the core aim of customer orientation. This is not to claim customer orientation is an absolute rule in marketing. Customer orientation is a better way to secure customers than telling them what they can have or trying to manipulate or deceive them into buying. But an extreme interpretation of customer orientation would lead to *market enslavement* where every whim, *regardless of cost*, is met. Alternatively, it can lead to disregarding responsibilities. We have already suggested the battle cry of satisfying students (to ensure future applicants?) has led to a dumbing down of courses (and a failure to meet responsibilities in developing the student's critical faculties). If a course is compulsory and tough there will always be pressure to provide a simplistic substitute, with students (e.g., in basic statistics) not realizing they have been shortchanged. In religion, it now seems to be accepted that practical convenience rather than serious commitment to a holy life is what people want and this is what they get: finding out what believers want and offering it to them replaces the propagation of the certainties of faith. An obsession with giving the public what it wants has led the news media to evade its responsibility to inform the public, as opposed to entertaining them; more one-dimensional discussions of national issues and the avoidance of anything that might offend the target audience and advertisers. Creating segments, though, for those requiring more in-depth news coverage or intelligent commentary is difficult when the segment numbers are insufficient to ensure profitability. For example, the *Wall Street Journal* is noted for its excellence and professionalism but it posts profit margins of around 3%. (Murdoch's takeover is designed to change all this!) Even in the movie industry, the target audience is the young, not because older people do not watch movies but because spin-off products (where the profit often lies) are bought by the young.

Interpretation Rests on Prognomic Indicators

Proxies, indicators or indices link to evaluating whether the choice criteria desired are absent or present in a product at the right levels. One facet of brand interpretation is the dependence on indicators, indices or proxies to judge the 'goodness' of the product for the intended function. Consumers interpret certain indicators as *prognomic*, that is, as justifying the expectation they will reflect the true position.

High Involvement in Buying

We refer to *involvement* when considering what the product means for the consumer. We speak of someone having high or low involvement with a product. Earlier we said that when we speak of a purchase having high involvement for a consumer, this is the same as saying the consumer believes the purchase has high meaning or significance in terms of his or

her wants. But when does a purchase symbolize high involvement for the consumer? It is not just a matter of the purchase being important in the life of the consumer: *centrality* is necessary but not a sufficient condition. There must also be *risk* (e.g., because of the product's high price) attached to the purchase. *High centrality plus perceived high risk attached to the purchase* makes the product highly meaningful for the buyer and implies high involvement by the consumer in the purchase.

Interpreting the Brand Name and Image

The meaning of a brand name consists of both referential and sense-meaning: (a) What the brand denotes (referential-meaning) in terms of product category and (b) Whatever sense-meaning is conjured up by the name in the minds of consumers.

Hill (2003) claims we think in images, not words, so that research focusing on the verbal alone is like a fish out of water.[2] On the contrary, the very essence of language-using human beings is thinking with concepts. If we lack the relevant concepts, we lack the corresponding thinking. Thinking is not restricted to images (Kosslyn, 1980). Adults do employ quasi-pictorial representations but use such representations in cognitive processing (thinking with language). When consumers recall a particular brand, what they recall are beliefs, claims (assertions) and images of the brand and it is these which are used in cognitive processing. Both imagery representations and propositional representations (involving concepts) are recalled. It seems that the relative speed with which the two types of information (images and propositions) are processed determines which type of information dominates consumer thinking about (brand) image.

The concept of the product class is the concept *type*, and any brand in the product class is a concept *token*. Consumers form images of both the concept type and the concept token, though this does not mean consumers have mental images for all concepts. For example, how could one have a mental image of truth? We cannot. As already stated, the mind evokes both images and propositions (Kosslyn, 1980).[3] Propositions *and* images are drawn upon in interpreting what the brand means to us but in asking about brand image consumers are apt to focus on the propositions (e.g., beliefs about the brand) that are evoked by the brand, rather than describing some picture or mental image in the mind.

Concrete descriptors are interpreted faster than words that are abstract. The reason for this might be that concrete words are processed using a dual system through (a) networks of associated words and (b) sensory images which are more easily evoked than abstractions. But an alternative explanation is that abstract words need more contextual information to retrieve the relevant information crucial to interpretation. The evidence for this is that, when abstract words appear in a meaningful context, abstract words are readily comprehended (Schwanenflugel, 1991).[4]

When discussing segmentation we talked of basic level categories and how these might be identified. Rosch et al. (1976) are original in showing that *basic* level categories can be shown to be at the highest level of abstraction that can be captured in consciousness by a single image.[5] This is one operational way we might identify the basic level category for any product class; something needed for market segmentation. Thus motor car, refrigerator, cigarette, coffee and cereal are all basic product categories since they represent the highest level of abstraction that can be represented by a single image.

Advertising and Brand Image: Inducing Affect-driven and Belief-driven Choices

Brand image, used without qualification, refers to the target audience's *collective* brand image. Since every consumer will have his or her own personal or idiosyncratic image, the collective brand image will consist of the commonalities which imply the collective image is less rich in detail. All marketers seek to make their brand a *significant* symbol by ensuring the brand's image resonates with the target audience and evokes the sense-meaning intended. Brand image in the mind is not equivalent to retrieving a picture from some mental file since images are constructed out of previously processed information, not retrieved from some mental filing system. The promotion of a *memorable* image is the promotion of a coherent one, accompanied by a consistent and novel message about the brand. The more exposure to the brand, whether through advertising or usage, the more easily is a brand recalled and the more the belief statements about the brand.

With repeated exposure to the brand there is increased familiarity and, other things remaining equal, the greater familiarity, the more the liking. This is the *repeated exposure effect* that helps mass advertising sell a brand through repeat ads even if the ads possess little persuasive content. It is analogous to the expression 'He just grows on you' or 'He's not bad once you get to know him'. Just as when we see something happening we believe it, when we consistently hear some assertion it normally goes into belief (Gilbert, 1993).[6] Life would be impossibly complicated if we didn't accept most of what we are told. Unless, contrary to existing beliefs, we accept and only then evaluate (if we do at all) to see if we should reject it. And under cognitive stress, we may not evaluate it at all. Repeated exposure effect is what can make product positioning so effective.

Pleasant images induce *affect-driven* choices while accepted beliefs generate *belief-driven* choices. We seek to induce choices that are both affect-driven and belief-driven. The question arises as to whether initial impressions (primary effects) are more persuasive than last impressions (recency effects). It depends on circumstances since both can be important. Both first impressions and last impressions of service in a hotel can be determining of attitude toward the hotel.

The collective brand image results from cumulative interpretations of past promotions of the brand, word of mouth and actual experience with the brand. This explains why there is a need to spell out the image desired and the experiences that help ensure a favorable interpretation. A consistent brand image, *symbolizing what the brand stands for*, is always crucial. The same is true in politics; a party or politician must come across as standing for something worthy of our commitment. A brand image improves or erodes over time. The more memorable the initial image, the less speedy the erosion of that image.

Brand Persona and Personality

Included among the proxies or indicators used by the consumer is the *symbolism* of the brand in terms of its *image* (the representations, opinions and beliefs conjured up by the brand), *persona* (the public face the brand projects) and *personality* (the key element of brand image as inferred from asking consumers to describe the brand as a person). It was Carl Jung, the Swiss psychiatrist, who claimed that every adult displays one face to others, which he called the persona, and another representing private feelings, which he called 'anima', agreeing that 'outsiders' have difficulty knowing one from the other.

If brand 'persona' and brand 'personality' are interpreted as favorable and memorable, it provides an emotional anchor for continuing support. A consistent persona is interpreted as the company's commitment to whatever the image suggests by way of benefits. A persona is sharpened by a reinforcing logo, brand name, appropriate packaging and characters (if not used as the logo) that the consumer can identify with. Citigroup so prized its red umbrella logo that it claimed it was 'non-negotiable' in its split with Travelers Property Casualty Insurance in 2002, though inconsistently it has now sold it back to them. The red umbrella is interpreted as something distinctive, sophisticated and, most important, adheres to its primary function. Consumers feel comfortable with a persona that they interpret as the image they have of themselves.

Brand *personality* is based on interpreting the brand as a person or living thing. Consumers are asked: If the brand were a living animal, what animal does it bring to mind? And so on. Developing an attractive brand personality links to fantasies, as well as the feeling of the brand being a friend. There are things in buying the consumer *knows* to be false but *feels* to be true, particularly for brands that possess a nostalgic resonance. Thus the consumer may believe her dentist does a good job but finds herself feeling otherwise.

Those who regularly buy a brand can be induced to feel other buyers of the brand are potential friends. This is what Pratkanis and Aronson[7] refer to as the *granfalloon effect*. It is based on Tajfel's[8] observation that labeling a group of people as having something in common gets them to act as

if they were friends. The exploitation of this phenomenon occurs in the various car clubs, with manufacturers hosting 'reunions' and so on. Apple computer, too, tries to get its customers to regard themselves as 'revolutionary' (in being discerning and on the cutting edge of technology). We also get the granfalloon effect in politics. Brett (2003) shows how the liberals in Australia formed a party out of the middle class, who previously had simply viewed themselves as individuals, by appealing to them as having higher moral principles than the rest.[9] This 'moral middle class' was something created by appeals to their moral sense, rather than to their self-interests. Humans are not solely driven by self-interest. They can be motivated by moral principles or social roles or by image-management, say, an image of respectability.

SEMIOTICS AND THE INTERPRETATION OF ARTIFACTS

The interpretation of artifacts is the *interpretation* of signs and this is what semiotics is all about. The term 'semiotics' was first used by John Locke (1632–1704), the empiricist philosopher, to cover the subject of 'signs' as they are used to understand things and convey knowledge to others. This meaning remains, with semiotics defined as the study of signs and the meanings they convey. Locke dismissed the notion that we are born with certain innate or *a priori knowledge*: all knowledge (as opposed to capacities to acquire knowledge) for him emanated from experience. The mind at birth was a tabula rasa (blank tablet) on which whatever is written comes from experience and the reasoning based on that experience. Locke was not denying that we have an innate capacity to acquire ideas but that simple ideas arise from the senses or introspection. Locke regarded reason as God-given and his belief in the sovereignty of reason was the rallying cry behind the 18th-century Enlightenment.

The Enlightenment perspective can be interpreted as the commitment to advancing *through reason* the conditions of human betterment with political economy the master discipline.[10] While there was a commitment to reason, the Enlightenment saw many things in utopian terms, like the belief in the possibility of discovering scientific 'laws' of society to eliminate crime. Isaiah Berlin (2006) takes adherents to task for believing it possible for a society to achieve a condition where all important values (ultimate ideals) are realized.[11] The Enlightenment endorsed the belief that conflicts of values could always be harmonized. Berlin accepts, as a universal truth, that conflicts of value are part of the human condition that are often irreconcilable. Enlightenment reason often led to error: the so-called 'scientific' classification of blacks as inferior stemmed from the 18th-century Enlightenment. But Christians were no better. They did not look to science to justify slavery but claimed to find it in the Bible in that Noah cursed Canaan (not his father Ham, who had committed the offence!) and subjected his progeny

to the dual curses of blackness and eternal bondage.[12] The Enlightenment as a perspective was not a monolithic movement. Israel (2006) claims there were the Radical Enlightenment and the Moderate Enlightenment with only the Radicals in the forefront for democracy, equality, secular morality and individual liberty.[13]

The Semiotics of Charles Sanders Peirce

The pioneering work on signs owes most to Charles Sanders Peirce (1839–1914)[14] and Ferdinand de Saussure (1857–1913).[15] Whether words, bodily gestures, paintings, road signs, fossils, statues, or consumer products, each constitutes a *sign* with a sign being any entity that provides information to someone. Every sign is an indicator of something other than itself, just a footprint in the sand is a sign of humans being around. When the consumer uses indicators in buying, such indicators are signs providing information about product attributes. If a message is a string of signs sent from a source (*sign producer*) to a destination (*sign receiver*), semiotics is the study of the exchange of messages. Semiotics is one way of studying communication not so much as a process but as a way of generating meaning for the producer and receiver of the message.

Peirce aimed to show *how* signs signify. He uses the term *semiosis* to designate any process involving *sign*, *object referred to,* and sense-*meaning* when sign and object are associated. A sign produces in someone's mind an equivalent or more developed sign. This mental creation Peirce called the *interpretant*. The interpretant is the *total meaning* that is signified by the sign, which covers what we have called sense-meaning and referential-meaning. Thus any name given to a product is a sign that indicates something and that something is the object. Any object evokes meaning for someone and that meaning, in total, is the interpretant. The interpretant may itself act as a sign and be productive of further interpretants and so on; the very meaning of a sign is tied up with its power to generate a series of interpretants.

A brand name induces in the consumer's mind a corresponding interpretant. There is no such thing as a brand name having no interpretant. It makes no sense to claim a computer-generated name has no meaning for anyone: every name has connotations or sense-meaning. Think which you would choose for the name of a diaper, Tarytak or Lamolay. A brand name will always arouse in the consumer's mind certain connotations (sense-meaning) and these need to be explored before deciding on a name.

Peirce's threesome of icon, index and symbol is based on the nature of the relationship between sign and object. With an *icon* like a portrait, the relationship between sign and object is resemblance; with an *index,* the relationship is an actual connection like that between a weathervane and the wind; with a *symbol,* the relationship is arbitrary convention like the relationship between the concept of justice and the blind lady with her scales.

Peirce's tripartite division into icon, index and symbols was to explain differences in the way signs are thought to form a connection to the world via their objects. Peirce agreed that signs were not exclusively confined to just one of the three in that it would be difficult, for example, to find any sign that had absolutely no indexical quality. Peirce points to some specific things about the icon, index and symbol:

- An icon is a sign whose form resembles its referent, or to word it differently, the icon is a sign in which the sign *vehicle* represents its object by virtue of a resemblance or similarity, e.g., beans on the can label. Portraits, photographs or maps are icons as they are related by likeness to their referents. Peirce distinguishes three subclasses of the icon: icons that are *images* in that they look like their referents; icons that are *diagrams* showing structural similarity; and icons that are *metaphors* where certain similarities are imputed or inferred. (More correctly it is the synecdoche rather than the metaphor that is an icon.) Nelson Goodman (1976) argues that mere resemblance may not be sufficient to establish a connection between an icon and what it represents on the ground that everything is relative to some system of interpretation.[16] In other words, a different system of interpretation or perspective may deny the connection. This is important to advertising. Interpretation is guided by perspective, and there is a need to check whether the target audiences differ sufficiently in perspective as to distort interpretation from that which was intended.
- A sign is an index when the sign vehicle represents its object through a *physical*, *causal* or *statistical* connection. A statue is a physical index, smoke a causal index (fire) and clouds (rain) statistical. Non-verbal communication (bodily contact, proximity, appearance, facial expression and so on) convey indexical information about the person observed. For Peirce an important subclass of indexes is *designators*. Designators seem more apt than the word 'indicator', which is the word used in earlier chapters. We decide the facts on the basis of what designators we accept as evidence. What designators do consumers accept as evidence of quality in, say, shoes? This is an empirical question and a key question for manufacturers. Peirce's *reagents* are another class of index. These are the signs used to deduce facts by working back from what is observable. Reagents thus relate to the method of abduction, working back from inferences to conclusions. In evaluating the quality of a shirt, the consumer might use:

  (a) *Designators* such as the shirt being two-fold poplin, buttons properly spaced, made of Egyptian Sea Island cotton.
  (b) *Reagents* like the brand name and packaging from which inferences are made about quality.

But specifying all the relevant designators and reagents as defined by Peirce is generally too challenging for the consumer. Just as in interviewing someone for a job we often judge abilities and traits from mere appearances, consumers typically rely on indicators less reliable than would be suggested by Peirce's concept of index and its subcategories. Evaluation may not be confined to the observable characteristics but with whether the buyer *believes* that the purchase will be socially validated by her social milieu. For Peirce, *symptom*s are 'unwitting' indexes in being interpreted by their receivers (e.g., doctors) without the participation of an intentional sender. What they denote is commonly different for the addresser (i.e., the patient) and the addressee (i.e., the physician). A *syndrome* is a constellation of symptoms tied to a problem. The concept of symptoms and syndrome applies to many service areas, not just medical services, but gardening services and house maintenance services since the situation needs diagnosis.

- While icons resemble the objects they stand for and indexes, like footprints, are related to their objects by causal, or physical links, symbols are non-resembling (a national flag symbolizes but does not resemble patriotism) and are not causally or physically connected to any sign. For Peirce, a symbol is a sign whose link with its object is a matter of convention, custom or common experience. Words are socially constructed symbols that are given meaning through convention, custom, agreement or common experience. The cross in Christianity by convention has become a symbol of Christianity (replacing the fish as the earliest symbol) and so associated with certain attributes like Christ's sacrifice. These attributes are part of Peirce's interpretant and are what the cross is said to symbolize. Similarly with well-known brand names. But what attributes or qualities a brand symbolizes must have substance (it cannot all be done with mirrors) but such attributes may be considerably embellished by associations conjured up by advertising.

- A brand name influences interpretations of a brand's dimensions:

  (a) Functional (the various functions suggested by the name)
  (b) Semantic (sense-meanings conjured up) and
  (c) Thematic (the 'feel' and 'texture' of the name).

Thus the brand name Dell (computers) *functions* to name a product; to signify a certain quality and level of service and to be easily recognized for buying. *Semantically*, Dell connotes value for money with the unity and uniqueness of the name suggesting the unity and uniqueness of the product itself. Finally, there is the *texture* and *feel* of the name, which is a down-to-earth, no-nonsense name.

Ferdinand de Saussure's Semiology

Saussure, the founder of modern linguistics, talked of a science of linguistics, focusing on the study of signs within a society as part of social psychology. This proposed sub-branch of social psychology he called semiology (from the Greek 'semeion' for sign). Although semiotics and semiology cover much the same ground, there are differences between Peirce and Saussure, not least Saussure's preference for dichotomies like signifier/signified, while Peirce showed a preference for trichotomies like sign/object/interpretant. The two separate traditions complicate the subject of semiotics, though leading names in semiotics/semiology like Umberto Eco[17] and Thomas Sebeok[18] draw on both traditions. Anyone applying semiotics/semiology in marketing should adopt a pragmatic approach, adopting the most useful system for their purposes. But much that comes under the heading of semiology or semiotics is purely theoretical, full of assertions that are difficult to test, moving away from the pragmatic usefulness demanded by Peirce.

Saussure argued a sign is a two-sided entity: the 'sensible' arising, for example, from a sound 'heard', or lights 'seen', and also a 'mental' image that is intelligible. Saussure called the 'sensible' that impacts on the senses, the *signifier* and the mental (intelligible) image, which is the content, the *signified*. For Saussure, a sign is an arbitrary correlation between a signifier and a signified just as there is an arbitrary (or what he termed *unmotivated*) link between the signifier 'lights' and signified 'traffic regulation' or between the signifier McDonald's golden arches and the signified food. Every sign consists of signifier and signified. Coca-Cola when seen, mouthed or spoken is the signifier while the concept of a soft drink that comes to mind is the signified. A *marked* signifier occurs when the signifier is modified or qualified in some way. Thus in speaking of designer jeans, where the signifier 'jeans' is qualified by the adjective 'designer', the attachment of 'designer' to the word 'jeans' marks the signifier and influences evaluations by associations. Similarly, the phrase 'handmade shoes' is meant to convey (without making any outright claims) there is something special about being handmade. On the other hand, the word 'unbranded' is a marked signifier that may promote unfavorable evaluation.

Broadly, Saussure's 'signifier' is Peirce's object, while his 'signified' is Peirce's 'interpretant'. Every consumer has sets of 'signifieds' by which she divides up the world, as signifieds reflect concepts and concepts categorize. But different signs have different values for the consumer and the relative values we attach to signs determine their relative significance. Thus the consumer attaches different values to the attributes of a product and such differences imply differences in significance. But establishing relative values suggests quantification since, if relative significance is important, so is measurement in determining ranking.

Saussure differed from Peirce in regarding a symbol as a sign where the link between signifier and signified is non-arbitrary or, in his terms, *motivated* in that there is a motive or reason for the linking of a certain signifier to a particular signified. For example, scales outside a courthouse symbolize justice, motivated for the signifier (the scales) suggesting what they signify (weighing of evidence). This view of symbols is instructive but it is too restrictive to be universally adopted.

SYMBOLS

Of particular interest to those in marketing is symbolism, which has had many explicators. Ernst Cassirer (1944) argues that a sign is part of the physical world while a symbol is a part of the human world of meaning.[19] Cassirer's is a neat distinction. A symbol is not something used to indicate the presence of something else but to 'stand as an abstract concept in place of something else' so as to bring to mind emotions or reactions that are believed to be appropriate to that something else, as when a flag is a symbol of the country.

John Miller (1980) denies that a symbol is a species of sign.[20] He argues a symbol is not a sign, as a sign is a thing which points to or suggests something else. Signs like traffic lights control *purposes,* but symbols control *systematic* thought—witness mathematics, which is a matter of constructing a priori proofs based entirely on symbolic concepts. He claims that we know about other minds as well as things in nature through symbolic artifacts. The whole of quantum mechanics is symbolic: the quantum is not something perceived by the senses. And science operates on the implication of symbols: mathematics is concerned with bringing out the implications of data as well as representing it. Symbols act to regulate and control thinking whether in science or in buying decisions.

For cultural anthropologists, symbols act as psychological cement for holding a culture together. A culture holds certain symbols as central to its identity. Levi-Strauss, the anthropologist, claims that an analysis of such symbolism reveals universal principles of thought. But any symbolism can be ambiguous, giving rise to arguments over meaning. This very ambiguity can on occasions make a symbol an effective means of uniting people, as all can interpret it their own way, as people in the U.S. interpret the flag. Whether in political life or in the market, where there is information overload, symbols of values can be decisive in generating support. We have 'bounded rationality' and are happy to go through life on (as the military say) a need-to-know basis. Symbols are reductive in necessitating little information search. But meanings change. In previous generations, a tear in a trouser leg of one's jeans would indicate poverty and symbolize the wearer to be lower class. Today it may indicate youth and symbolizes fashion. Whenever brands are undifferentiated, marketers fall back on building

up associations of the brand with valued images with the expectation that the aura of the image rubs off on the brand.

Interpretation Through the Prism of Impression Management

In sociology, symbolic interactionism, associated with George H. Mead (1863–1931) and Erving Goffman (1959),[21] stresses the role of symbols in social life in considering how people develop a sense of themselves in social interaction. What something symbolizes is not something objectively and rationally linked with something physical in the world, as is the case with an icon and index, but relates to *meanings* in the mind.

Goffman (1959) employed the 'frame' as a metaphor for interpreting social life on the ground we act within some contextual frame.[22] For Goffman, strict ritual, and the dread of being embarrassed, is what brings order to society. This gives rise to the concept of *impression management:* role-playing in society through managing the image one projects; something necessary in a society given over to status seeking and saving face. Goffman interprets social interaction within a perspective that sees fear of embarrassment as dominant. William Miller (2004) goes further in stressing the distance between the self-understanding of a performance in a role and the private self acting as a commentator on that performance.[23] Fakery is likely to accompany activities such as praising, apologizing, worshipping, making love, pursuing love interests and so on. Scheibe (2000) modifies Goffman in using the metaphor of the 'box' (frame with a third dimension) as more apt for signaling a context: change the box and you change the person, as occurs with faculty when transported from the classroom to a faculty meeting. This is because boxes transform perceptions.[24]

Alfred Korzybski, the founder of general semantics, claims that we carry in our minds 'inner perceptions' of the way things are.[25] He called these inner perceptions 'maps' and declares we carry in our heads thousands of such maps, representing nonexistent or unreal territories which demagogues exploit. (It is not clear how such maps differ from talk about systems of beliefs!) Persuaders need to identity these maps to either play on these maps to exploit their misconceptions to advantage or to try to correct the faults in the map. This is in line with the importance of ensuring people are 'on the right wavelength' to receive a particular persuasive communication. It is another way of talking about different perspectives. If an audience already has the 'right' perspective, we make rational appeals, but if perspectives need to be changed, perspectives are changed by indirect means through, say, the use of metaphor. An echo of this is Kenneth Burke's approach to the use of language as a symbolic means of inducing cooperation.[26] He argues cooperation can be induced by bringing about mutual 'identification' with others which comes about when we *symbolically* share both symbolic and real possessions:

(a) *Physical* such as the same running shoes.
(b) *Experiences* such as the same activities like sports.
(c) *Beliefs*, attitudes and values.

In sum, we identify with people who possess the same type of possessions, enjoy the same kinds of activities and have the same view of life. Such groupings could form market segments. Flanagan (1996) would argue that this can be so because these are what concern those within the groupings.[27]

SIGNALS, SIGNS AND CODES

A *signal* is a sign which triggers an *immediate* response from the receiver. Thus the sight of a tortured animal in a campaign to raise money for the protection of animals is a signal that triggers an immediate, *natural*, emotional response, while the phone ringing is a signal that *conventionally* demands a response. In both examples, a response is elicited. But sometimes the reaction to a signal inhibits an action, as when price inhibits buying.

A sign can designate a class. Members of a class may have nothing more in common than the name. Yet people may act as if the commonality of having the same name suggests more than just the name being held in common. Advertising has exploited this tendency and marketers have segmented the market on this basis. We earlier discussed this under the granfalloon effect.

In semiotics, the word 'code' can cover rules prescribing what to do and how to act in a situation *and* rules for translating or interpreting a message. When codes possess a stipulated relationship between signifiers and signified, as with traffic lights, they have a precise but restricted set of signifiers with a precisely related set of signifieds and so are called *arbitrary* codes. Codes may not be explicitly stated but understood and employed, as with the codes of social behavior. Codes, though, only function if both senders and receivers share the code and this is not necessarily so.

In a *formal* code like the Morse code there is the sender encoding a message and the receiver decoding it. The advantage of a formal code is the provision of a set of unambiguous rules for converting a message from one type of representation (the Morse code) to another in the language. Traditional hermeneutics and traditional semiotics (the study of signs) assume analysts can recover and decode meanings by reference to a coding system 'that is impersonal and neutral and universal for the users of the code' (Hodge et al., 1988).[28] This is an overtly simplistic view. Even the most detailed code or set of rules is never *materially* complete but leaves room for discretionary interpretation.

Whorf Hypothesis

Edward Sapir in the 1920s argued that language is a reflection of the way its speakers comprehend the world. But it was Benjamin Lee Whorf, a chemical

engineer by profession who studied under Sapir, who went further than Sapir in setting out what became known as the Whorf hypothesis, namely, that language is not just an encoding tool intended for communication but it is also a *shaping* force by providing habits of expression that predispose people to see the world in a certain way; language guides, or even determines, our thinking and actions.[29] For Whorf, language was not merely an instrument for expressing ideas but a shaper of ideas, sufficient to determine thought. And different languages provide very different perspectives on the world.

Language does influence how people think (since language provides the concepts for thought) but the evidence saying language *determines* thought is something else. An example in support which still has wide currency is that Eskimos have many more words for snow (since their way of life demands it) than others do. Detailed investigation, however, has shown this is just not so (Pullum, 1991).[30] On the other hand, an investigation of the color-naming abilities of the Dani people of Indonesia showed the Dani has words for only two colors: black and white, but this did not prevent the Dani from distinguishing and comprehending other colors. This undermines support for the deterministic version of the Whorf hypothesis. Also, Noam Chomsky was to argue that children have an innate capacity to speak a language, which implies there is a common underlying structure lying behind all languages. This gives support to the notion that it is nature and not nurture (culture) that is crucial in language acquisition, since speaking a language would seem to be inherited. This has given rise to the study of cognitive structures as more important than culture but the battle between nature and nurture continues throughout the social science, with some who even question the sharp dichotomy between nature and nurture (Lloyd, 2007).[31]

The color experiment might not be a crucial test of the Whorf hypothesis since colors confront us all the time. In contrast, numbers are abstract, so tests on numbers would be more decisive. This is the position of Peter Gordon (2004), a psycholinguist at Columbia.[32] His work among a tiny tribe in the Amazon jungle, one that does not possess words for numbers beyond two, demonstrates that their ability to conceptualize numbers is no better than that among pigeons, chimps or infants. Anything requiring *cognitive* manipulation of numbers was beyond them. It seems that without a language for numbers, people do not develop the ability to perceive numbers above two. This is supportive of the importance of concepts for thought but also gives some credence to the Whorf hypothesis. It has inevitably led to further research. The latest being the work of Edward Gibson (2008) of MIT.[33] It is an important finding, given the present claim that the (adaptive) unconscious determines so much of what we do (Wilson, 2002).[34] There are few, however, who would endorse the extreme view of total conceptual relativity associated with Whorf.

While we may reject the notion that language totally determines thought, language does influence thought, as language facilitates or impedes the

expression of certain ideas and in this way affects interpretation. The concepts in a language are basic blocks for the expression of ideas. Language is particularly important for abstract thinking, while there is no evidence that sentences need images to make sense as is sometimes claimed. Concepts are added to the language when happenings show a need for such new concepts.

CODES, PARADIGM AND SYNTAGM

We sometimes view an advertisement 'as if' it had been encoded and needs to be decoded by the audience. We say 'as if', since to talk of coding and decoding is to speak metaphorically as we do not know the exact processes at work. In any case, it cannot be assumed that the advertiser and target audience share the same 'code'. Sometimes an obscure 'code' is used deliberately to stimulate a wide range of interpretation, allowing people to read it in the way that most pleases them. But, while ads do not need to be *transparent*, they need to be *legible* if the target audience is to persevere in probing for the right 'decoding'. If work in semiotics has any relevance here, it suggests that advertisers overestimate the copywriter's ability to provide ads that are able to promote a dominant or preferred interpretation and underestimate the extent to which the target audience makes sense of ads in ways that relate directly to their concerns. This suggests the need to pre-test ads for interpretations that are likely to evoke concerns of the target audience. Since the subject matter of most commercial ads does not link with our deep concerns, there is a need to *associate* the ad with the concerns of the target audience. When poorly done, the ad comes across as 'corny' and even embarrassing. Putting across an emotional message is particularly difficult for commercial products or corporate advertising. The Johnson & Johnson's public relations ad, '*A nurse's 'touch' can touch the world',* is spoken to evoke emotion but comes across as anything but authentic—except perhaps for nurses!

Saussure argued that there were two ways in which signs could be organized into codes. The first rests on Saussure's own notion of a 'paradigm'. In this stipulated definition, Saussure defines a *paradigm* as the *total* set of code signs from which choices are made to form messages. (This is not how we use the term 'paradigm' in social science where the term paradigm is used, following Thomas Kuhn, to mean the conceptual lens via exemplars capturing the perspective of the discipline. In philosophy, the term 'paradigm' is used to illustrate a perfect exemplar, as when philosophers speak of a 'paradigm case'.)

One way to organize codes into signs, suggested by Saussure, is for all individual members of a paradigm to have something in common, yet be distinguished from each other. The trouble with this is that any arbitrary group of items will always have *something* in common. Saussure's second

way to organize codes into signs is 'syntagmatic'. A *syntagm* is the actual message into which signs are combined. In any language, vocabulary is the paradigm and the sentence is the syntagm. What a man is wearing is a syntagm of the choices made from the paradigm of shirts, the paradigm of ties, and the paradigm of shoes and so on. Similarly, all the distinct benefits sought by those in a market constitute a paradigm, while each benefit segment would be regarded as a syntagm.

What is important about syntagms are the rules by which the individual code signs chosen from the paradigm are combined. In language, these rules are the grammar or syntax. With clothes, the rules relate to taste and fashion. In respect to benefit segmentation, the rules relate to meeting the want of a customer group in a coherent, coordinated way. Just as a sign is affected by its relationship with other signs in the syntagm, a new market benefit can be a sign which changes meanings for the buyer, just as the addition of fluoride to toothpaste changed the significance of toothpaste in terms of its functions. Significant differences in a syntagm can be identified by subtracting or changing a unit in it and noting the consequent changes in meaning (significance) for the customer, just as we might subtract the brand name to gauge its effect on customer perceptions. As many experiments have shown, beers stripped of brand labels are given a different ranking than that which occurs when labels remain.

When the code signs in a paradigm are separate entities, the code is a *digital* one, while for entities that form a continuum the code is *analog*. In breaking down a market into hierarchical market structure, we assume a digital code while, with perceptual maps, we adopt an analog code by employing a measurement system. A *broadcast* code is one that is understood by a heterogeneous mass audience, while a *narrowcast* code is understood only by a specific audience. In advertising to the public at large, we need a broadcast code but this is not the case for all audiences. One of the basic rules of advertising is to use the language of the target audience and that language dictates a narrowcast code. Hence the puzzlement by older people over the language in advertisements directed at the young.

An '*oppositional* code' rejects the values of the dominant market group. This was the case with Nike advertising in first launching its running shoe, which attacked the notion of running to win. The ad appealed to the values of a significant segment of runners. There can also be a '*negotiated* code' when the dominant code is modified in some way as when an ad appeals to status considerations but uses a non-elitist actor to promote the product. Both the oppositional and the negotiated code may encourage *aberrant* decoding. Aberrant decoding occurs when a different code is applied in decoding from that used in encoding and is common in interpreting advertising. But ensuring interpretation in line with sender intentions is not confined to just choosing the right signs but taking account of context. This means taking into account preceding messages, environmental factors and mental states such as mood. This can be illustrated by the Richard Nixon

White House tapes; without background context, the broken sentences would be difficult to understand.

Strongly shared codes may lead to interpretations that erroneously are made to fit the code, as in Jerzy Koskinski's *Being There,* where even the most idiotic remarks were taken as wisdom. Sharing a strong common code may give rise to anthropomorphism or the predilection to attribute human characteristics to lower organisms or inanimate objects. We find it irresistible to claim a dog is depressed or anxious, happy or sad because interpretation of the dog's behavior is based on assuming dog and man share the same code of non-verbal behavior. Anthropomorphism extends to products, particularly to machines. Interaction with the computers (the Joseph Weizenbaum's computer program is an example) can lead people to believe they are interacting with real people.

Notes

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