

Out of the Scientific Prison.

This is the first paper I wrote in my doctoral studies at Case Western Reserve University. Interesting to see the foundations of what became a life's work.

Comment from Professor Nathan Grundstein

Peter

1/24/72

Good paper

I learned from it.

Got me past some self-imposed barriers.

G RUNDY

Peter Reason
Please Return

OUT OF THE SCIENTIFIC PRISON:

an exploration of the knowledge base of
Organisation Behaviour

Peter Reason
ORAD 530
December 1971.

"Oh, Issee! One man retreating is running away, but a whole Regiment running away is called a retreat? I demand to be tried by cowards!"
Spike Milligan, Puckoon.

Entities should not be multiplied beyond necessity.
Occam's Razor.
Entities should not be reduced beyond necessity.
Burke's Principle.

There was a young man who said, "God
Must find it exceedingly odd,
If he finds that this tree
Continues to be
When there's no one about in the Quad".

Reply:
Dear Sir, your astonishment's odd,
I'm always about in the quad,
And that's why this tree
Will continue to be,
Since observed by,,yours faithfully, God.
Ronald Knox.

What of his own poor experience?.....how to account for the declaration that the vaginal orgasm was a myth and friction upon the clitoris was the only way an excitement could discharge?.....his experience which seemed to speak of a slurge of orgasms which came not so near to being defined..... which came from you knew not where.
Norman Mailer, The Prisoner of Sex.

"Cognito, ergo sum"

Descartes

$e = mc^2$

Einstein

Come, he says, thou outside there; come, he says, thou outside there.
Come, he says, thou outside there; come, he says, thou outside there.
Thy Sivoangnag bids thou come,
Tells thou to enter into him.
Come, he says, thou outside there.
Eskimo song

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INTRODUCTION

Who are we? We are studying Organisation Behaviour. What's that? Well, it's a sort of form of Behavioural Science. Science? What do you mean by that? Well.....

These are some of the questions I have been asking myself over the past few years as I have engaged in Organisation Development. The whole question of whether OB is a science is fascinating, and I think, important.

We have come up immediately against the problem of defining our terms; in this paper I shall be using the term "science" to refer to the popular stereotype of the classical scientific method. For some people "science" includes the pursuit of all knowledge, but normal usage forbids me to employ it thus and so I intend to follow Don Juan and use the term "Knowledge". Knowledge in this paper is that which gives meaning and order to our existence, and which provides a base from which we can act.

When I last renewed my Passport and was able to remove "schoolboy" from the line labelled "occupation", I thought for a while of putting down "Behavioural Scientist" instead, but as I asked myself the kind of questions posed above I began to get uncomfortable with the term, so I put down "Organisation Consultant" instead. This looked grand, which was the main point, but now I realise I had only avoided, not solved, the problem. While I had rejected the term "science" and much of what it stood for, I had not answered the question "Who am I?"; and in particular I had not answered the question, "If you are a consultant, not a scientist, can you tell me how you consult? What is the knowledge base from which you operate, if it is not Scientific?"

This paper looks at these issues. I want to move towards an answer to the question, "What is the knowledge base of OB?", and to explore the consequences of choosing a basis other than a scientific one. Chapter One looks at science and at OB in an attempt to define and clarify these terms. Chapter two presents some ways of knowing other than scientific, using Hainer's three archtypes Rationalism, Pragmatism, and Existentialism (2), Maslow's view of humanistic science (3), Laing's Politics of Experience, and finally looks at knowledge from the point of view of Don Juan (1) and the shamam(6). Chapter two drawas these ways of knowing into a toatal model and indicates under what conditions each might be successful; it is suggested that these ways of knowing might be looked at as "overlapping cognitve gestalten", in that while each appears to be a discrete way of knowledge, they overlap and are interconnected in important ways. Chapter Three shows that we need and value ways of knowing other than scientific if we are to cope with the kinds of problems that OB has ambitions to solve; Finally, Chapter Five looks at the consequences of all this for OB and suggests some further lines of inquiry.

CHAPTER ONESCIENCE AND ORGANISATION BEHAVIORScience

"Science" is a term that has got lost, along with so many other words and people in the Twentieth Century. Originally, it covered all ways to knowledge, but now it is used popularly as the theoretical half of "science and technology", and is seen as specifically referring to the physical and natural sciences. Sometimes the term is used synonymously with the scientific method, which may be described briefly as a combination of induction and deduction based on experimental observation of the world. When the disciplines studying man and society claim the word science, which they sometimes do out of a neurotic longing for respectability, the popular reaction is to deny that they are, or ever can be, fully scientific. This section examines the bases for the rise and success of quote science unquote, drawing mainly from Whitehead (7), in an attempt to understand what we mean, and what associations may be triggered, when we use the term "science".

Whitehead accounts for science as an anti-rationalist movement based on a naive faith in the order of things, a concern and interest in "brute fact", and mathematical abstraction; he sees science as a revolt against the Rationalist doctrines of Medieval times, but also growing out of them in important ways. Men like Copernicus and Galileo were concerned with observations of the real world, and began the movement towards "doubting away all inherited knowledge in favour of an entirely new method of knowing" (6); in doing so they upset the medieval divines with their fixed Rationalist view of the world. They were nevertheless

working from the assumption that Nature is at base rational, that there is an "order of things", which according to Whitehead must be a legacy from the "medieval insistence on the rationality of G God, conceived with the personal energy of Jehovah and the rationality of a Greek philosopher." Although the philosophy of science has questioned this view of nature, the basic assumption of scientists has remained, and with good reason, for as Ayer (8) points out, the procedure has been highly successful. It is only recently that the physical sciences have begun to suggest that the world may at base be chaotic.

The second factor in the rise of science was the concern with facts. Bronowski (9), says that the tale of Galileo dropping cannon balls from the Leaning Tower of Pisa is not true; he did not do it, and the experiment does not work anyway. But even as a myth, it is significant in demonstrating the experimental approach to life and to knowing as opposed to the closed logic of Medieval times. My own value system, which we may examine later, says that we need beautiful stories like this one, and that it is a pity to spoil them; the only important thing is to make sure you chose the right moral to the story.

The third cause of the rise of science was the movement to mathematical abstraction, which was facilitated in physics by finding the right measurement of nature (mass). The movement from a science of categories to a science of measurement lead to the reduction of differences in quality to differences in quantity, and to the ability to make abstractions from reality in the form of manipulable laws that could be further tested in closed-system experiments.

Physical science was able to make enormous strides forward

in answering the important questions of the time; it was, and still is, enormously successful. Because of this success it has been able to ignore important philosophical and epistemological questions. The physical sciences became abstract, and philosophy, the critic and examiner of abstractions, partly due to this success of science, and partly due to the split between mind and matter, between experimenter and experiment, that occurred with the rise of science, was not able to influence them. An abstract discipline is not able to deal with those parts of reality that it has not abstracted, maybe because it has ignored them, or because they are not amenable to abstraction; these parts of reality may be important. The non-physical sciences have all been hampered by the dominance and prestige of physical science and its methods. That prestige has not been built on epistemological purity, nor even, as Koestler (10) and Kuhn (11) show, by using the method it claims exclusively to itself, but simply on success.

"Science" is seen as quantitative, when the early stages of inquiry in a field normally need to be descriptive and qualitative; as abstract, when it may not be possible to abstract the important parts of reality; it has developed a mechanical view of nature by gathering data from the parts of reality, abstract theorising, and then placing an unwarranted concreteness on these abstractions; finally, science has classically dealt with groups and with generalisations, rather than with particular individual phenomena.

So far we have looked at the total "thing" called science; we need to examine also the "scientific method", Rapoport refers (12) to the three arms of the methodology -- observation, induction, and deduction. He discusses the quantitative nature of the observation which we have already noted as leading to abstraction;

he defines induction as "a process of arriving at general conclusions from particular observations"; deduction as "the process of arriving at conclusions from a set of assumptions". "For the physical scientist a theory is essentially a collection of theorems, ie assertions logically deduced from postulates, the latter being either empirically established laws or hypotheses." We have already noted the other aspect of the scientific method, the "closed system " experiment in which all variables except those under test are "held equal".

Organisation Behaviour

The aim of OB is to develop a body of knowledge which is useful for the development of social systems towards the resolution of the problems that have arisen with the development of Western Industrial civilisation. These problems range, according to the interests and concerns of the individual practitioner, from those of optimising individual social systems to rethinking the whole basis of our social organisation. An example of the first would be improving manager/worker relations; of the second, facilitating the change towards the post industrial society.

OB operates from knowledge based broadly in the behavioural and social sciences, and has borrowed terms and approaches from many other disciplines. It is interested in many non-scientific aspects of life, like art, poetry, and literature, as making their own unique contribution to understanding reality. It tries to go outside the Western culture to the knowledge of other societies, for example to Eastern religions and philosophies. As a discipline OB has no paradigm; there is no overall approach to the field which unites the community of practitioners which Kuhn describes ((11)).

The epistemology of OB is ill defined; it appears at times to hanker after a classical science methodology, but at other times it is unashamedly subjective.

An important part of OB is its active cousin, Organisation Development (OD); OD is the technological arm, and also the source of much of the data for the purer search for knowledge. OD is often completely non-scientific in the classical sense, for example in T-group practice, where the trainers tend to operate by trusting their own feelings and impulses rather than by rigourously collecting and analysing data. This leads us to another characteristic of the field, which is that in their interventionist role practitioners operate on the basis of their own personal skill, "the observance of a set of rules which are not known as such to the person who is following them" (Polanyi, 14).

The community of practitioners, which according to Kuhn is an important determinant of a science, is difficult to define. I suggest that they tend to be liberal to radical, humanistic and optimistic people, and that the rewards of the community, especially in terms of prestige, go to those with broad competence -- intellectual, emotive, intuitive, interpersonal.

The field of interest of OB -- the client system of OD -- is complex, changing, turbulent -- a type 4 environment in the terms of Trist and Emery (15); it is one in which the data is not easy to gather, and even more difficult to measure and decide what is relevant to a particular problem. It is not manipulable, and therefore not amenable to controlled experiment, even if the values of the practitioner were to permit him to conduct such experiments (Trist 17)

Adams (18) discusses OD under five headings which include much of the above, and will serve well as a summary to this section. He discusses OD as a process, a point of view towards organisational change, which includes:

- conceptual models of organisation effectiveness
- the implementation of behavioural science research findings
- a systematic method for looking at organisation life
- intentional cultural change
- a value statement

CHAPTER TWOWAYS OF KNOWING

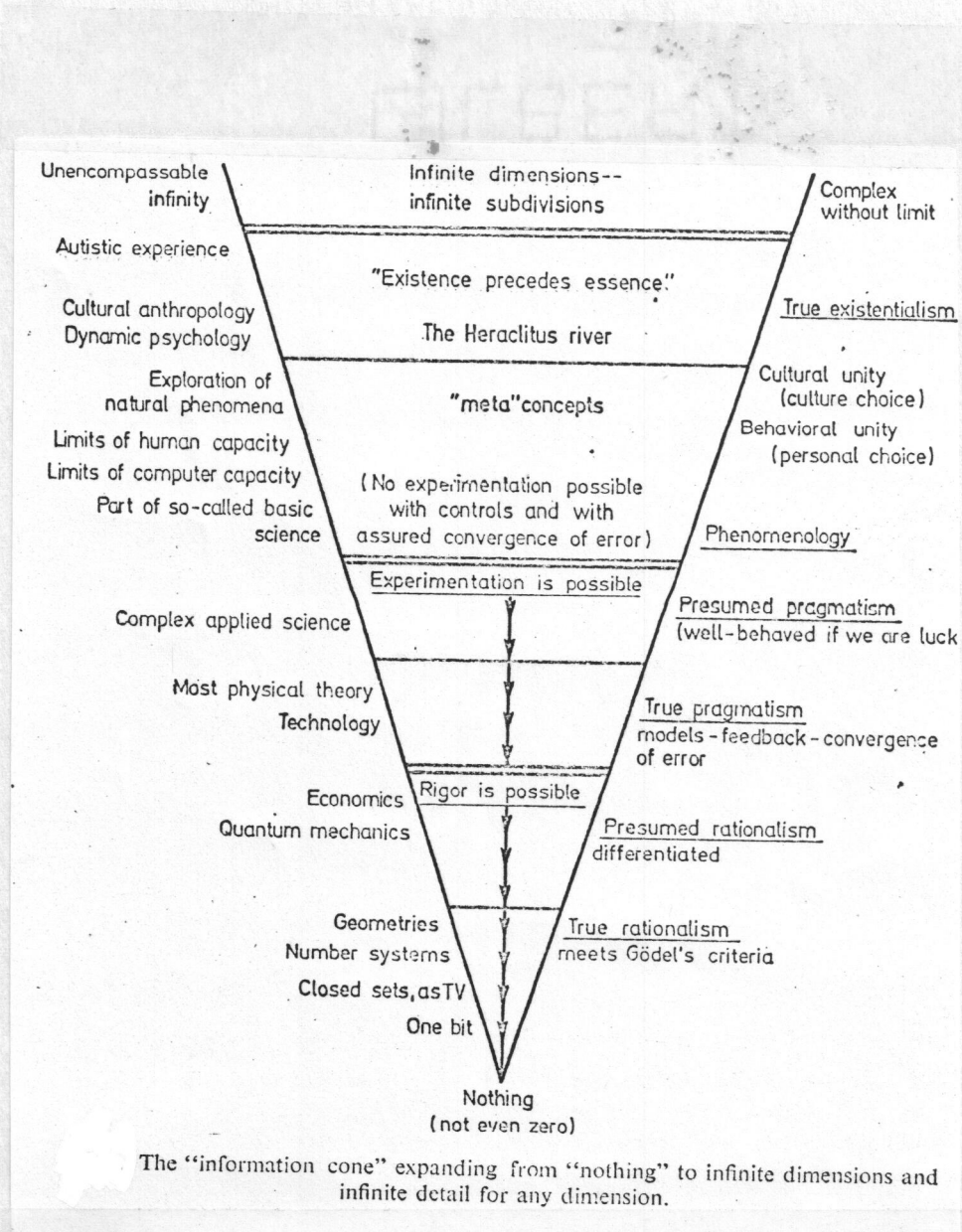
The previous chapter aimed to clear the air by defining what we mean by science and what we mean by OB. The aim of the present chapter is to show that there are ways of knowledge other than the scientific, indeed, that we do naturally and normally and legitimately use a range of ways of knowing, and that different ways are appropriate in different circumstances.

Hainer (2) presents three archetypes, Rationalism, Pragmatism, and Existentialism, which he relates in an "information cone" (Fig 1). He maintains that human existence is existential in nature, and that it is only possible to move down the information cone towards Rationalism and Pragmatism as the amount of information taken as relevant to a situation decreases. I intend to extend this model to show a continuum of ways of knowing from Rational to Existential (Fig 2).

Towards the left hand end of the continuum are ways of knowing that are more conceptual, abstract, and intellectual; the system of thought tends to be closed off from reality, and the "knower" is separate from the subject that is known; the impact of the values of the knower is small; order is imposed on the subject matter by the knower; relatively small amounts of information are employed; anyone, starting from the same assumptions and sharing the same system of logic, can understand the process and conclusions.

Towards the right hand end of the continuum are ways of knowing which are more totally perceptual, involving the whole person -- his intellect, all his senses, and his emotive state;

Fig 1
(after Hainer)

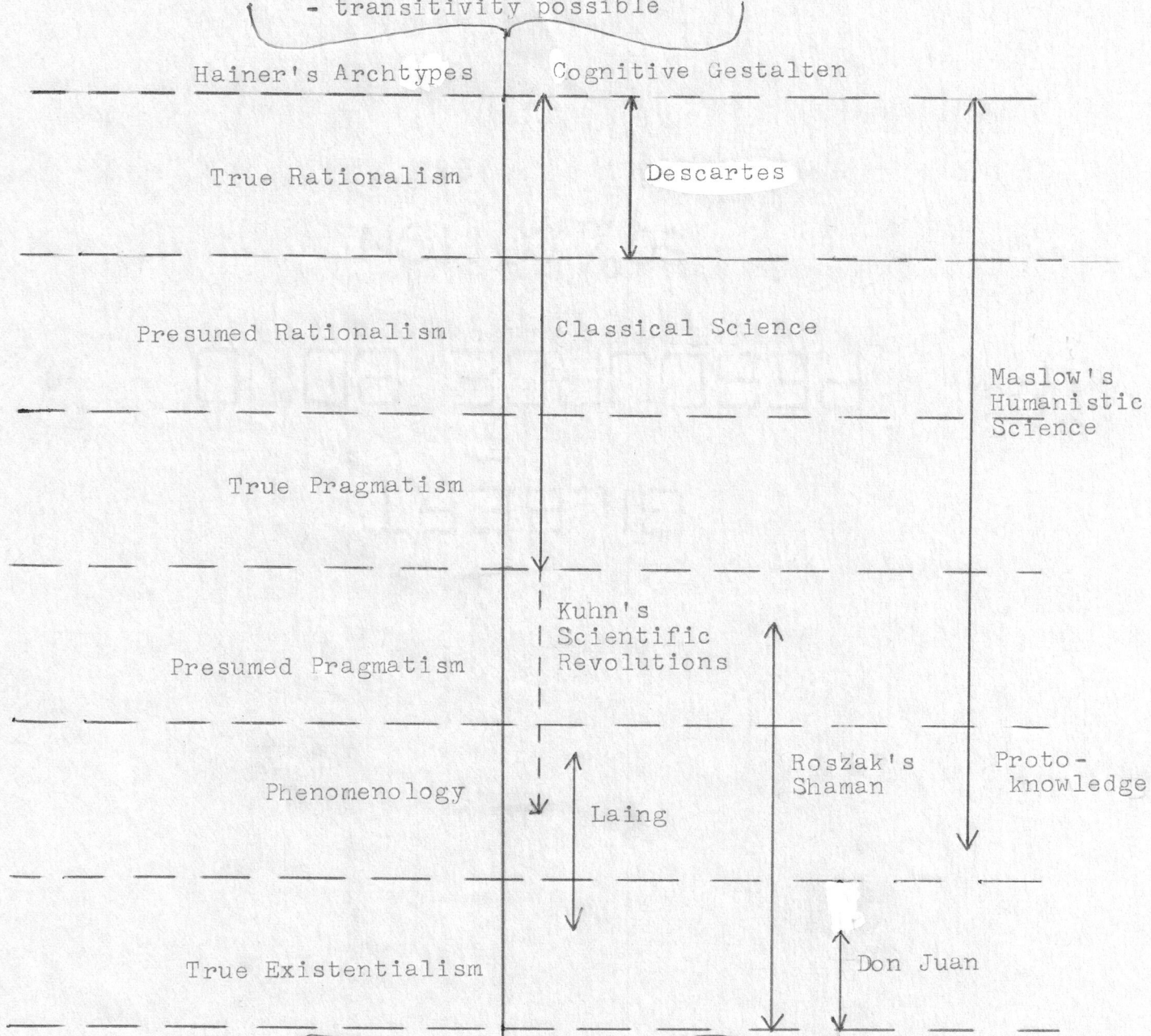


the system is completely open to reality, and the knower is part of that reality; perception is active and "intentional", and thus the impact of the values of the knower tends to be high; order tends to emerge from reality; enormous amounts of information may be involved; the process tends to be completely personal, and becomes increasingly difficult to share with others.

We shall shortly examine in more depth some of these statements, but first I want to give a "feel" for the total model by pointing out some of the major landmarks that lie along the continuum. My contention is that there are a limitless number of positions to take along the continuum that represent different ways to knowledge; that we tend to form "cognitive gestalten", "figures" that we differentiate from the total "ground" of the continuum. These gestalten may be located at any point of the continuum; they may be wide, they may be narrow, and they may or may not be suitable approaches for the situation at hand.

We have already pointed to Hainer's three archetypes; I have used the terms Rationalism and ^{Existentialism} Pragmatism to denote the two end areas of my continuum. Pragmatism spans an area in the middle, starting where "rigor is no longer possible" and ending where experimentation must cease; there is also the politician's pragmatism which is simply a medley of ad hoc policies. Science, as I have used the term in this paper, spans Rationalism and Pragmatism; I shall show that humanistic science, as described by Maslow (3), tends to span pragmatism and phenomenology. Mysticism would probably lie in a small band well to the right hand end of the continuum.


- conceptual, abstract
- intellectual
- closed from reality
- separation of knower from known
- low impact of values
- order is imposed
- small amounts of info
- transitivity possible



- perceptual
- whole person involved
- open to reality
- knowereis part of reality
- high impact of values
- order tends to emerge
- large amounts of info.
- transitivity no possible

Some writers have shown that popularly accepted gestalten do not in fact represent accurately the way to knowledge they purport to describe. The movement to science, as has been shown above, was a movement away from the narrow rationalist thought of the Middle Ages towards a new way of knowing. Kuhn (11), Koestler (10), and Polanyi (14) have all in their different ways shown that the classical explanation of scientific inquiry is not in fact what actually occurs, and that all science, especially at times of major advance or breakthrough, relies heavily on existential modes. The historical trend of Western thought has been towards greater use of the right hand end of the continuum.

The process of differentiating figure from ground has advantages in that it facilitates our comprehension of the different approaches to knowing as separate entities, and we can better grasp the meaning and use of each; it also has the disadvantage that by concentrating on the figure we can forget the ground, which leads us to the stupidities of asking how many angels can dance on the point of a pin, to the rationally consistent but experientially crazy statements of our bureaucracies, for example that we have invented a "clean bomb", the pragmatism of some politicians that degenerates into a medley of ad hoc hypotheses and policies, and existentialism that imposes "isolation within impenetrable autism" (Hainer). We need to connect and relate these approaches to knowledge, to be conscious of the approach that we are using at any one time, and not be so wedded to one approach that we become blind to the dead ends into which it may lead us. Part of the thesis of this paper is that science, as discussed



above, is in danger of becoming one of these dead ends. As an approach to knowing it has been immensely useful, but the popularly accepted characteristics outlined above (p5) are having a limiting affect on the way our culture experiences the world. Science will continue to be an important part of our knowing, but it must be seen and used in the context of the total range of ways of knowing.

It is possible to characterise people by the way of knowing they tend to adopt, and thence suggest the kind of difficulties into which they will fall. According to Hainer, "the rationally oriented person.....when he is confronted with things he does not understand will establish his security and affirm his identity by structures sufficiently inclusive to resolve or deny doubt", and "tests of reality are made, but only those observations that affirm the rational view are retained; differences are discarded." For the Pragmatist, "Phenomena with more complex behaviour than any models are prepared to encompass are considered either not scientific or professional, or are approached by ignoring the difficulty"

We have briefly looked at the whole field; we need now to explore in detail some specific parts of it, in particular the right hand end of the continuum. Much of the left hand end will be familiar to the reader; it contains Cartesian Rationalism, Euclidian Geometry, and everyday common sense logic; it also contains Godel's metamathematics.

Existentialism is based on phenomenology, which is discipline that attempts to take what is given to us by experience without obscuring preconceptions or hypothetical speculation. The word "phenomenon" originally meant in Greek, "that which reveals

itself"; thus phenomenology is an attempt to let things speak for themselves and reveal their own natural structure, in contrast with modes towards the left hand end of the continuum, where the observer tends to create or impose meaning on what he assumes will be otherwise chaos.

Existentialism was originally a revolt against the overuse of the intellectual and underuse of the emotive and intuitive faculties of man. As Kierkegaard wrote, "It was intelligence and nothing else that had to be opposed. Presumably that is why I, who had the job, was armed with immense intelligence." (19)

Existentialism is concerned with the totality of human existence; "to experience is broader than to experiment To experience implies openness to uncertainty, no a priori relevance, confusion about what is 'within' and what is 'without', and ambiguity about ordering and magnitude." (2)

Hainer points out that the basis of human experience is existential. Written like that, the sentence is a truism, a statement that need not be made. However, "from the existential, experiential, phenomenological point of view, all human experience in its origins appears complex, unique, unrelated, uninterpretable, and uncommunicable. But the 'human condition' seems to be capable of developing to where raw experience loses these properties and at times seems to become simple, commonplace, related, interpretable, and communicable..... The transition from the uncertain and the unknown to the certain and known involves, in the informational context, a very large reduction in content,the loss of much differentiation or 'possibilities', and the use of simplified codes, patterns of concepts to stand for the more complex

experience....." Western society is more concerned about concept development than we are about experience, but "although our culture may rationally verbalise denials of it, we have all experienced an existential psychological origin." (my emphasis).

We are so familiar with more rational ways of knowing, or at least with our rational facades, that discussion of more existential modes is extremely difficult; almost by definition, the written word is a rational form, obeying its own internal rules with no reference to the outside, and much of our language must be metaphorical if we are to communicate more than simple ideas. And ways of knowing towards the right hand end of the continuum become increasingly impossible to share. We can, however, discuss two important aspects of existential thought: the intentionality of perception, which is beautifully described by Wilson (5); and the existential formulations which Hainer calls "metaconcepts".

The main theme of Wilson's book is that our consciousness is not a passive receptor of reality, but it is intentional; "It is not a plane mirror, merely reflecting the world. It makes its own distortions, quite apart from our natural human tendency to distort the world through our emotions and prejudices." He makes the point that the world is really there, but that we have learnt to "read" it. It is actually "a confused mass of sights and sounds". Colour, which science explains in abstract mathematical terms as differences in the wavelengths of light, comes to us as an experience of qualitative differences. For Wilson, this demonstrates that what is essential about human experience is inexpressible in terms of a materialistic science.

If we accept the fact of intentionality, that consciousness is prejudiced, we must accept the fact that we can alter our perception. Animals are passive creatures in relation to their environment; they simply adapt. Man has discovered that he can alter his environment. But he has "not yet made the discovery that his perception can also be changed; where consciousness is concerned, he still suffers from the 'passive fallacy' -- that as things are, so they must remain." Wilson claims that most of the assumptions by which we live are false, and in particular that the "delusions of passive consciousness make man particularly susceptible to pessimism"; man tends to intentionalise negatively. Huxley, when under mescaline, was asked if he could see where madness lay, and he replied with an emphatic affirmative. "If you started the wrong way, everything that happened would be a proof of the conspiracy against you..... If one began with fear and hate as the major premise, one would have to go on to the conclusion." There is a negative element in human consciousness; man has the capacity to have a vision of "men as gods", but disillusionment keeps crashing in.

This necessarily brief account of the first two thirds of the most exciting book I have ever read leads us to the main point for the purposes of our present thesis. Wilson reviews a number of incidents in which men have perceived beyond the limitations of everyday consciousness, and points out that in these experiences the sense of value of existence changes. There is one reality, but normally we view it as with a microscope, as is appropriate for everyday small problems. But we also need to have an over-all glimpse of the totality of reality. "Man's trouble is that he tends to get trapped in the world of the microscope, to lose his

sense of purpose among trivialities." His glimpses (of overall reality) tend to come accidentally." The experiences of non-ordinary reality he recounts are perceptual, not conceptual, in nature; occasions of seeing beyond the limitations of everyday reality, of short term common sense; thus the sense of value of existence changes. "Values are our most intimate response to our conscious perception of existence. What we regard as worth doing or not worth doing -- that is our values."

Wilson's analysis indicates that there is a standard of values "external to human consciousness". He contends that most people frequently have experiences that indicate that "everyday consciousness is a liar".

What seems to me to be important about this approach, apart from its explanation of an approach to knowing which is radically different from our traditional modes, is its overriding impact on our approach to life. It seems that while there may be times when it is useful to assume that objective consciousness is possible, we must realise that our total perception of reality is influenced by the value stance from which we approach it.

"Man is instinctively aware that he is a purposive animal, who was not intended to live passively in the present." "We are all insane", because we are "acting on a limited sense of assumptions".

Hainer's metaconcepts are the other essential aspect of existential thought. If we accept the initial existential position of "more information than you can handle", and "experience is prior to concepts about experience", "semantic definitions, assumptions, and logic are not a satisfactory origin for an intimately human system of reason." Existential concepts can

only be descriptive, they cannot be the rigourously defined concepts of Rationalism. Hainer calls "existential formulations"-- insights -- metaconcepts, using "meta" in the sense of beyond, transcending, warning the reader that "established methodologies and calculi are not applicable.....", that there is "freedom for me to formulate as well as I can to be understandable

"meta" highlights the uncertainties of generalisation, of assumption, and of limited information content."

"The existential emotional position is characterised by emergence of alternatives, by choice of commitment, by responsibility for the choices you make or you accept, and by willingness to work for personal contribution even if all is dark" The "meta" nature of such a position is clear: it is completely coherent only from the position of he who makes the choice.

We have now completed the description of the model relating different approaches to knowing; the next step is to show how the approaches of various writers fit in. To do this I intend to look in some detail at the approach outlined by Maslow in 'The psychology of Science', and then more briefly at the contributions of some other writers. Maslow, like Wilson, has written a book that should be read, not summarised, in which he outlines a humanistic science that he sees as more powerful and inclusive than classical science. Here we shall examine some of the characteristics of his science; in the next chapter we shall consider why he sees a movement towards a broader approach to be necessary.

Maslow's humanistic science in many ways extends the classical science gestalt into the phenomenological part of the continuum. He discusses experiential knowledge as being prior to verbal conceptual knowledge and hierarchically related to it: most psychological problems must begin with a phenomenological approach and can only then move on to objective experimental methods. For experiential knowing there is a need for the "good knower", who is well acquainted with himself as an instrument of investigation; but he insists that we also need "spectator" knowledge, knowledge about the world, for a complete understanding. His criticism is of a science that includes only spectator knowledge, which distances and separates the knower from the known, and points out that passion and interest in the subject will often produce better scientific results than will routine disinterested investigation; and in some cases, as with knowledge about drug addiction, nearly all the useful knowledge is purely experiential -- that of former addicts.

Science, for Maslow, has two goals: one towards utter simplicity and condensation, and the other towards total comprehensiveness and inclusiveness, including "the vague, the ambiguous, the archaic, the unconscious all stages of knowledge, including the inchoate." Part of this comes from "suchness meaning", a Taoistic, non-interfering approach, and interpersonal knowledge. Suchness meaning is not to be dichotomised from abstract meaning; it is more another facet of total understanding; it is understanding something for what it is, in addition to integrating, coordinating, and classifying. Taoistic science is "being able to keep your hands off and your mouth shut, to be patient, to suspend action and be receptive and passive." This

is not simply descriptive science, but involves being "part of the nature he observes", allowing the inner structure of things to reveal themselves. Again Maslow is not suggesting that we must substitute this approach for the interfering, experimental approach; he is saying that this is an additional way of knowing. Interpersonal knowledge comes out of loving and caring for something for what it is, and thus "more concrete experiencing and witnessing, less abstraction, simplifying, organising, or intellectual manipulation you may see it then ... as it is in its own nature, untouched, unspoiled. ie, objectively."

Finally Maslow argues that "knowledge (includes) all 'protoknowledge', so long as its probability of being correct is greater than chance." "My main point is more radical. If we define science in terms of its beginnings and simplest levels rather than in terms of its highest and most complex levels, then science is simply looking at things for yourself rather than trusting to the a priori or to any authority of any kind." (my emphasis). This seems to be very close to the position of the early scientists in their revolt against the Medieval Rationalists!

Maslow's approach places parts of science well within the phenomenological area of our continuum; he does not reject the classical science approach, but substantially adds to it, and indicates that different approaches are appropriate in different circumstances. This is very much the position I am taking in this paper in trying to compare and relate different approaches to knowing. Figure 2 shows the placing of a number of approaches to knowing on the continuum. I do not have space to discuss all the

approaches in detail, but in addition to those covered above I have added the teachings of Don Juan, a mystical unsharable knowledge, well to the right of the continuum and covering a relatively narrow band; Roszak's view of the "eyes of flesh, eyes of fire" of the shaman, who, at one with nature, can be placed in a broad band covering some of pragmatism and all of existentialism; and Laing's phenomenological "Politics of Experience".

Clearly the one dimensional model is a vast oversimplification of these relationships; Its purpose is simply to indicate that there are different ways of knowledge, that there is a relationship, and that we are constantly faced with choices about the ways we know.

CHAPTER THREECHOICE OF KNOWLEDGE: NEEDS AND VALUES

One of the themes of this paper is that we have to make choices between various approaches to knowing. This chapter approaches the issue of choice from the stance that we need ways of knowing other than the classical science approach; and that there is a trend towards placing a greater value on non-scientific approaches.

First, I want to argue that our approach to knowledge in society as a whole and in OB in particular must move away from the limited approaches that characterise present inquiry. I do not wish to imply that everyone is locked into a padded cell of rational/pragmatic thought; but I am convinced that our culture implicitly sees "objective" knowledge as the only valid goal, and "science" as the only valid approach. As Maslow suggests, the form and methods of classical science may indicate a pathological approach to knowledge. "Science has come to mean primarily patience, caution, care, slowness, the art of not making mistakes, rather than courage, daring, taking big chances....." One is reminded of Kuhn's puzzle-solvers. Such science is "defensive, deficiency motivated, safety need motivated, moved largely by anxiety....."

There are three basic reasons for the need to push out towards more existential modes of knowing. The first is that we constantly come up against situations in which there is "more information than we can handle". The world is "buzzing, blooming confusion", and if we always approach it with modes of inquiry that limit the amount of information we utilise and simplify the

complexity, we will never understand that world, and eventually our ability to take action will be incapacitated and bound by the very theories we used as supports. The second cause is the change which we "change agents" are so happily pushing. We work hard to facilitate an organisation change on the basis of our present theory, which just now explains reality to us and gives us some fine directions for action, but tomorrow that theory no longer seems relevant: the problem has changed, or someone has invented a better or more fashionable theory. Third, we are concerned with people who seem very good at avoiding being "objectively" studied, and we consult in individual and unique situations, which will always be too complex to be slotted into any particular theoretical position.

These three causes are closely inter-related; in some ways change is only a special case of complexity, and people and consulting situations are both complex and constantly changing. We need to examine them in more detail.

We have established that it is our values that are our most intimate response to our experience; they mediate between our experience and our consciousness, and thus simplify the world. The major historical climacterics may be seen as times when the mediating position of man's value stance changes: the development of science, the rise of bureaucratic organisations, would not have been possible from the value stance of the previous era. Our basic relationship to the complexity of our existence is existential, and we must be aware of it in order best to use the powerful scientific methodology which rests on it. When objective study ignores complexity, it can degenerate into a defense against

reality.

Schon (20) argues that we have in the past been comforted by a myth of a future "stable state" -- when we have grown up, after our exams, when the war is over -- when the world will once again be secure and cosy. Increasingly that myth is becoming less available to us, for reasons that do not need to be documented here (see also Tofler 21). "In these situations (of crisis or uncertainty) there is no lack of information..... There is an information overload..... and as yet no theory in terms of which new information can be sought or new experiments undertaken. 'Uncertainty' is a way of talking about the situation in which no plausible theory has emerged". He goes on to say that "Pragmatism is no response", and "The task which the loss of the stable state makes imperative, for the person, for our institutions, for our society as a whole, is to learn about learning".

There are very close parallels between Schon's analysis of a crisis in society and its needs for improved learning, and Kuhn's view of the crisis before a scientific revolution: both are failures in the existing order of things, and both are only to be resolved by going beyond rational/experimental problem solving. Kuhn suggests that the nature of choosing a new scientific paradigm is one of switching gestalts; Schon points to systems analysis and existentialism as "the two major responses to the inapplicability of the rational/experimental model."

In the last chapter of his book, which is titled "What can we know about social change?", Schon points out that "we are largely unable to 'know' in situations of social change, if the criterial of knowledge are those of the rational/experimental

model". There are two main interlinked reasons for this: more information than we can handle, and the fact that "it won't be the same next time". Schon shows in detail that the accepted model of public experimentation cannot work, and that because the rational/experimental model breaks down, the situation is normally resolved by an appeal to ideology, or by power play. He holds out the alternatives of systems analysis -- which in our model is in the process of bringing more powerful and general rational and pragmatic tools to the study of social situations -- and existentialism -- Schon's existentialism is close to Hainer's -- as being beyond the "epistemological nihilism" of ideology or power play.

The third reason for the need to move towards existential modes of knowing is our concern for and interest in people and unique situations. Maslow points out that classical mechanistic science is interested in groups and aims at generalisations; to study individuals we have to make "epistemological peace with the fact that people have purposes and goals....." We must also be concerned with the conscious, preconscious and subconscious: "Confronted with the depths of human nature, we psychologists learn to respect also the inarticulate, the preverbal and subverbal, the tacit, the ineffable, the mythic, the archaic, the symbolic, the poetic, the esthetic. Without these data, no account of a person can possibly be complete." People seem to resist being "known" objectively; they spend a lot of energy preventing the investigator from getting inside their heads. In addition, one cannot do controlled experiments with individual people or situations, especially when they are unique and to be valued for

themselves, which as Maslow points out, is the only way to get to know the human situation; one can only make "existential leaps" to a "metaconcept" level, using one's total sense of what is true or appropriate "here and now".

I sense that in addition to the need for ways of knowing other than scientific, our movement towards existential modes is also a result of a reaction against "scientism", with its connotations of an atomistic and mechanistic world. In saying that we value other ways of knowing, we can point to the beginnings of the existential movement, for example to Kierkegaard's attack on the "intellectual aesthete", the philosopher who claims to be the spectator of all time and existence, and who therefore can only have a partial attitude towards life. Our present value stance is demonstrated by the problems we take on, our concern to take a holistic approach, to involve our whole selves in an experience of joining the knower and the known, and in our reaction against those who see their science in terms of control, as do the Behaviourists.

Roszak (6) demonstrates our value position in part of his attack on "The myth of objective consciousness"; he criticises the psychology, not the epistemology, of science, with its alienative dichotomy, between the observer's "in here" and the world "out there"; the invidious hierarchy, which subordinates "out there" to "in here", so that it is seen as totally stupid and unreliable; and the mechanistic imperative, our admiration of the regularity of machines and our tendency to adopt that regularity into human life.

We can also point to the many counter-culture movements in that they reject a mechanistic bureaucratic establishment,

reflecting a value shift away from rational thought towards experiencing the world. Of particular interest is the move towards a value on complexity; in an interview for Mother Earth News Murray Bookchin says, "We must learn a new attitude towards experience so that, when we look at differences, we don't think of them in terms of a hierarchy but recognise their integrity as differences. This involves an appreciation of diversity and a respect for diversity.....we have to go back to a more complex type of society....."

We are undergoing a shift in our valuation of different ways of knowing; over a very broad front people are rejecting "scientism" in favour of experience. We must support this trend, but not in the process ignore the powerful rational/empirical tools that we have developed so far, or fail to develop new ones. Not only must we extend our range of ways of knowing, we must also become flexible, so that rather than get locked into one one approach, we can choose the one that most fits the situation we are in.

CHAPTER FOURCONSEQUENCES FOR THE PRACTICE OF ORGANISATION BEHAVIOUR

In this paper we have explored a number of different approaches to knowing and tried to relate them in a descriptive model. This final chapter explores the question, "What does this mean for us?". Has this just been an interesting exercise, whose main achievement has been to spread an obscuring smokescreen over the tenuousness and vagueness of our knowledge, or does it present consequences for our practice of OB?

The main issue that comes from this paper is one of choice. We can form an infinite number of cognitive gestalten from the total ground of approaches to knowing; we must learn to form and choose the gestalt that will be most useful to us. As we might suppose from the basic theme of this paper, the only basis for our choice of approach is existential. It becomes more or less useful for me, here and now, to approach the world as being rational or non-rational; or to assume that there is such a thing as objective knowledge, or not; and so on. That is my existential choice.

The consequences of this approach to knowledge also have an impact on the community of practitioners, and on the client system. Kuhn points out that the relationships, norms, and values of the scientific community have an enormous impact on the direction of scientific endeavour; and it is also clear that our relationships with the community we wish to study and serve are crucial to our success. Kuhn sees that the "paradigm" is the mechanism by which the community of practitioners are linked, and which enables them to share a common view of the world. Kuhn sees that the choice between paradigms is of an existential nature; I want to explore the consequences of an existential paradigm

for OB and for its relationships with the social systems it intends to work in.

Our exploration of existential knowledge showed us that our values are our ultimate basis for knowing; we also saw that in many of the situations in which OB operates, we have to base our action on existential choices. It follows that the only way in which the OB community can be linked is through common values leading to a common perspective on the world. This point of view is supported by the existence of the two psychological camps, the Behaviourist (eg Skinner), and Humanistic psychologists, who so clearly work from different value positions. We need to work toward a common paradigm for the behavioural sciences so we can communicate and build on each others work; the main stay of this paradigm must be a shared value position.

What would a paradigm for OB look like? In the Pstscript to the second edition to his book, Kuhn clarifies his meaning of paradigm, suggesting four aspects:

- symbolic generalisations, which Kuhn describes as "those expressions, deployed without question of dissent by group members, which can readily be cast in a logical form...." (my emphasis). We do not have many of them in OB. If, however, we use Schon's concept of a typology, which, "in the absence of a coherent and encompassing theory,..... provide ways of organising items of experience and relating them to new situations", we can point to any number that are seen by members of the community as being useful models, not to apply to all situations, but to have available, not only to help order one's own experience, but to assist communication. I have in mind Erikson's stages in the development

of the self, McGregor's Theory X and Theory Y, Friedlander's Life Styles, etc; Schon points out that these typologies "are subject in every here-and-now situation to modification or even to explosion through surprise".

- shared commitment to beliefs in particular models; for Kuhn the models range from the heuristic to the ontological. The power of such simplifying models as the rational-economic man of classical economists, or the bureaucratic model for organisation theorists is clear. The choice of such models is strongly influenced by the community's value stance; these are not just assumptions adopted to make reasoning easier, but deeply held beliefs. Can one imagine a humanistic psychologist using a model based on rational-economic man?

- values; Kuhn here is mainly concerned with the values held as to what is regarded as valid knowledge. Quite clearly this is a crucial question for OB if we accept the validity of existential knowledge in the field: my knowledge is truly personal and cannot be shared; what do we accept as community knowledge? The answer lies in the fact that we have not rejected the search for sharable knowledge: within an existential paradigm a lot of "normal science" can continue, especially at the level of protoknowledge, with the chances of correctness being better than chance.

- exemplars; for Kuhn one of the most powerful aspects of the scientific paradigm is its ability to transmit the community's point of view to the next generation of scientists through textbooks that are built on "the concrete problem-solutions" that "show them by example how their job is to be done". This is the

"tacit knowledge" which is learned by "doing science rather than by acquiring the rules for doing it". The whole theme of this paper must indicate that this is a crucial part of any social science paradigm.

The most influential and pervasive part of such a paradigm would be its shared value position: a shared belief in the complexity of man's existence, and in the kind of view of man put forward by McGregor (22), Rogers (23), and Tannenbaum and Davis (24). I also want to suggest that the paradigm will be more powerful if it shares these values with the social system in which it is working. I have already suggested that the major social structures of history were strongly supported and legitimized by a system of beliefs and values, for example feudalism and predestination, bureaucracy and rational-economic man, and now maybe the counterculture and the personalistic life style. I suggest that the power behind these and other structures and movements was their widespread support through the social system, and that for OB to be powerful as an approach to solving the problems of the Twentieth Century it must work for the emergence in society of a value system which will support its own. We may be able to see the beginnings of this in Trist's account (25) of the emerging values of a post-industrial society.

The main point of this paper is that if the study of OB is preoccupied with its status as a science, it will lose its place in the mainstream of social change. The issues of concern are not so much puzzle solving within an over-riding paradigm, not cautious, exact, objective knowledge, but major choices in direction, major issues of choice. The role of OB is to facilitate these changes.

Another major consequence of an existential approach to OB is its impact on the practitioner in his consultant role. Consultancy, of the kind practiced as part of OD, is very strongly based in phenomenology. The consultant is nearly always working in a situation of "more information than he can handle". Many of the "tips of the trade" in consultancy help the consultant to deal with this fact: "always have two theories (at least) to explain what is going on"; "do not work alone unless you have to"; "try to have someone to check out your perceptions with". The best practice of OD is phenomenological: although it is often practiced, wrongly in my view, in the mode of an "expert" behavioural scientist coming in to plug his theories into the organisation, the most successful interventions seem to occur when the consultant acts on the belief that the organisation has all the knowledge and data to solve the problems it wants to, so his task becomes to "identify and mobilise situationally relevant information, energy, and resources". (18 original emphasis). The consultant is thus working with the "personal knowledge" of the client, not with objective, unbiased, "scientific" knowledge.

Thus the OD practitioner, if he accepts the place for existential knowledge in his practice, is not the "puzzle-solving" scientist of Kuhn, or even the "professional" that Trist describes (17). He comes much closer to Polanyi's skillful performer, who may observe rules which he does not recognise as such. Schon, discussing the "learning agent", points out that the validity of his knowledge comes from the here-and-now, and that existential theory building grows out of the here-and-now in the form of "more or less explicit models of situation-action-and-effect (which) become the basis of projective style and personal models";

that the validity of his position lies less in bodies of knowledge, but in his ability to take leaps in existential knowledge. For the consultant, or for any active person in a social situation, convergence of probability, the basis of pragmatism, cannot be present; induction is not possible, permanent theories are a burden. The consultant must be fully present in the interpersonal here-and-now, and be capable of alternative explanations and temporary understanding.

Two major research questions arise out of these statements (if we now have any idea of what we mean by research!). The first is to examine the relationship between the personality of the practitioner and his preferred approach to knowing and consulting style. It seems clear that the kind of style implied in the previous paragraph would be very stress ful for some people, but comfortable for others. The second research question is to examine what in practical terms we mean by phenomenology; if this is an important way of approaching the world which Western culture has lost, how can we redevelop phenomenological skills in ourselves and in others.

These issues of consulting practice seem to me to be of crucial importance. There has been such a lot of human and social helping practice based on rigid theories which may contain a lot of truth and utility, but which approach the client with "this is the answer to all your problems". The fact is that the client, happy to have an authority tell him that life is simple and rational, initially accepts a vast oversimplification of his experience, only to find later that "life ain't like that", his experience cannot be made to fit a rational model.

The final set of consequences of this approach to knowing is

for ME. The energy for writing this paper has come from my own need to explore these issues, rather than to write clearly for other people. I have been at times unhappy with the result, especially when I felt that I was having to use a rational mode to discuss processes that are non-rational. I am aware that there are inconsistencies in what I have said -- I have described the world as basically chaotic, but also as providing its own order. I am content to leave it thus, as I have finished this exploration for the moment, and need time to find out what it all means for me -- and most of all for me the person, not for me the behavioural science consultant.

What I seem to have done is to open up a "growth science", to use Maslow's phrase. The world cannot be the same again with all the possibilities and choices. At the same time I have opened myself up to the four natural enemies of knowledge which Don Juan describes: fear, clarity, power, and old age.

"This is a time when a man has no more fears, no more impatient clarity of mind -- a time when all his power is in check, but also the time when he has an unyielding desire to rest. If he gives in totally to his desire to lie down and forget, if he soothes himself in his tiredness, he will have lost the last round and his enemy will cut him down into a feeble old creature. His desire to retreat will overrule all his clarity, his power, his knowledge."

Don Juan

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