Self-Organised Learning and the Relativity of Knowing: Towards a Conversational Methodology

by:

Sheila Harri-Augstein

&

Laurie F. Thomas

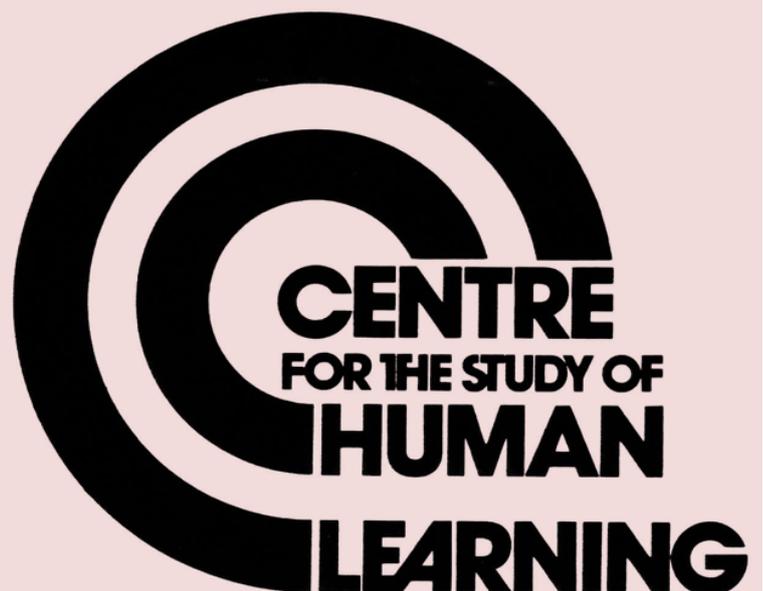in:

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> "God first made Angels bodilesse pure minds,
> Then other things which mindlesse bodies bee;
> Last he made man th' Horizon trixt both kinds,
> In whom we do the worlds abridgement set:."

> Sir John Davies, Nosce Teipsum, 1599.
> (From J. B. Bamborough "The Little World of Man"
> Longmans Green and Co, London, 1952.)

CONSTRUCTING PERSONAL DESTINIES

At one point in "Beyond Freedom and Dignity" Skinner (1971) poses the question: who will use the behavioural technology he is advocating? "Until these issues arc resolved", he writes, "a technology of behaviour will continue to be rejected, and with it possibly the only way to solve our problems," Skinner is offering his model of man as a basis for reflecting upon and then creating our own future. This would appear to be a very Kelly-like approach to the problem. Can (wo)man make (wo)man? For Skinner the answer is a very definite" YES". All we need to do is to design a culture in which "advantages accrue by emphasising contingencies of reinforcement in lieu of stales of mind or feelings", Many of us may not feel that in stating the problem in this way Skinner has got it quite right. Who makes who? But there can be no doubt that in having the courage of his convictions about how people learn, Skinner is facing up to issues which concern us all, and to which we do not as yet seem able to envisage a coherent" humanistic" response.

The title of the first chapter in a recent book by Lorenz (1977) is "Life as a Process of Learning". Early on he writes:

> Life is an eminently active enterprise aimed at acquiring both a fund of energy and a stock of knowledge, the possession of one being instrumental to the acquisition of the other. The immense effectiveness of these two feedback cycles, coupled in multiplying interaction, is the precondition indeed the explanation, for the fact that life has the power to assert itself against the superior strength of the pitiless inorganic world.

Lorenz's purpose is if anything even more comprehensive than Skinner's. He is recruiting his life-long experience as an ethologist to reflect on the condition of man. Whilst not as overtly optimistic as Skinner about his ability to influence the outcome, he also sees our only salvation in re-viewing our nature. He believes that a new and different awareness of ourselves (as evolving living matter) and of the contexts we have constructed might enable the human race to avoid what he '"knows" to be the inevitable consequences of the

contemporary course of world civilisation. In this, his position is similar to that of George Kelly (1955). They both argue that human beings, life in its most complex form, have now evolved to the stage where they can, by reflecting on their own nature, take charge of their own destiny.

In the 1920s I. A. Richards wrote the" Meaning of Meaning" with C. K. Ogden (1923). Fifty years later in "Beyond" (Richards, 1973) he takes a different path in the same direction. Being a great teacher he does not believe that his conclusions are primary. He sets about the problem in a more "conversational" manner. He writes:

> an invitation offered to my readers to join me in entertaining certain notions, if only briefly. A number of works, from among the greatest, enter in various guises (whether dis-guises or not, is, partly, what the (inter)play is asking). They there confront one another. Being what they are - the spiritual ancestors: springs, headwaters, for the Helleno-centric and Judaic traditions, sources of our world and our very selves - what they do to one another, through the selected aspects I try to exhibit, provides the dramatic engagement. What the outcome may be is not to be presented here. If it could be set down (down is the word) the play would be needless. There will be more to these interactions and exchanges than any summary could report.

This is another road to awareness of our nature. The great literature of man reflects the very essence of our being. I. A. Richards is here offering to accompany us in our exploration of "'the world's great word hoard": not to instruct us in what he knows, not even to guide us through literary country familiar to him, but to use his experience to help us equip ourselves for new expeditions into the ever-changing peaks of human understanding. As McCulloch (1965) asks, "What's in the Brain that Ink may Character'?"

It is interesting to note that Rogers (1961), in battling with the problem of how to present the essential outcomes of his therapeutic investigations, eventually also opted for a "let the exchanges speak for themselves" style of presentation. This is the current dilemma of the elders" of our civilisation. A life-time of thinking, feeling and acting has led them to constructions of experience which enable them to anticipate events in a manner which, they feel, would be of value to those of us following on. But the attempt to summarise, to state conclusions, not only antagonises many of their readers, but. usually for the best of them, fails to satisfy their own need to pass their experience on. This is also the new but perennial dilemma of (social) psychology. Its investigations lead to findings which are both significant and yet trivial. They are significant for the participants in their context. But remove the specific intentionality, the location in time, space and culture, and the attempts at objective generalisation appear to dissolve the substance. leaving only a shadow of understanding. That is why certain psychologists are tempted into alternate forms of expression (Bannister, 1979; Hudson. 1978; Skinner, 1948) and why certain writers are thought by laymen to be better psychologists than the psychologists (Wilson. 1972: Koestler. 1964). Kelly has identified these problems, stated the issues clearly and offered an original orientation to the description of what psychology might legitimately aim to achieve. Again it is significant to note that in most of his writing his style of presentation (e.g. Kelly, 1978) deliberately breaks the objective reportage mode which has been for so long equated with the valuing of scientific or professional work.

The theme of this paper is triadic. It attempts to view learning as synonymous with the process of living. It reflects on how (wo)man's images of (wo)man influence our alternate

futures. And it offers the view that since in Kelly's terms thought. feeling and action are indivisible then psychological tool-making may be the most productive activity for advancing psychology through a period in which our modes of description must change at least as radically as did those of chemistry from the alchemists to the periodic table.

PEOPLE AS SELF-ORGANISED LEARNERS

The infant is conceived (lives), is born (lives), develops (l..s), struggles for "understanding (l...s), reaches for self-awareness (l...s), blossoms (l...s), fades (l s), blossoms (l s). fades (l), blossoms (l), fades (l) and dies. This is learning. *How* we live is the question. Is what becomes of us due to happenstance or is it possible that some human beings construct their experience, reflect upon their constructions and converse with others to determine their own destiny? This issue recurs in surprisingly many areas of human experience. The universal appeal of a popular best-seller perhaps best illustrates this ubiquity.

> As he sank into the water, a strange hollow voice sounded within him. There's no way around it. I am a seagull. I am limited by my nature. If I were meant to learn so much about flying, I'd have charts for brains. If I were meant to fly at speed, I'd have a falcon's short wings, and live on mice instead of fish. My father was right. I must forget this foolishness. I must fly home to the Rock and be content as I am, as a poor limited seagull.
>
> When Jonathan Seagull joined the Rock on the beach, it was full night. He was dizzy and terribly tired. Yet in delight he flew a loop to landing, with a snap roll just before touch down. When they hear of it, he thought, of the Breakthrough, they'll be wild with joy. How much more there is now to living! .. , there's a reason to life! We can lift ourselves out of ignorance, we can find ourselves as creatures of excellence and intelligence and skill. We can be free! We can learn to fly!
>
> Whatever stands against that freedom must be set aside, be it ritual or superstition or limitation in any form ...
> "There is no other" ...
> "Look at Fletcher! Lowell! Charles Roland! Judy Lee! Are they also special and gifted and Divine? No more than you are, no more than I am. The only difference, the very only one is that they have begun to understand what they really are and have begun to practise it.
>
> ("Jonathan Livingston Seagull" Richard Bach, Avon Books, New York.)

Psychology has been seriously disabled by specialist language. Its attempts to converse more precisely continually pervert the everyday meanings of words. The word "learning" is a good illustration. For Jonathan and his friends living is learning. Theories of learning in psychology have been what in common parlance would be called theories of teaching or instruction. They describe how the experimenter must act to produce behaviours from the learner which are then evaluated in terms defined by the experimenter. Many other "psychological" words have suffered a similar fate. Rogers (1969) in "Freedom to Learn" attempted to re-habilitate "learning". He suggests it can be better understood if we recognise that:

Human beings have a natural potentiality for learning. Significant learning takes place when the subject matter is perceived by the student as having relevance for his own purposes. Learning which involves a change in self-organisation-in the perception of oneself is threatening and tends to be resisted. Much significant learning is acquired through doing.

Learning is facilitated when the student participates responsibly in the learning process.

Self-initiated learning which involves the whole person of the learner - feelings as well as intellect - is the most lasting and pervasive.

Independence. creativity and self-reliance are all facilitated when self-criticism and self-evaluation are basic and evaluation by others is of secondary importance.

The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.

This resonates with Rogers' view of the fully functioning person and with what Maslow (1962) describes as self-actualisation. Learning entails the complete person. It involves more than just theories of memory, problem solving, skill and motivation. It does, as Rogers rightly indicates, involve more than contemporary theories of learning (i.e. teaching or instruction) offer. The whole is more than the sum of the parts; the (human) system as a whole develops characteristics which cannot be predicted from the characteristics of the subsystems considered in isolation (von Foerster, 1960). It is from this perspective that PCP is most likely to illuminate our view of people as learners. PEOPLE SEEK MEANING. THE CREATION OF MEANING, THE PROCESS OF ACHIEVING PERSONAL KNOWING IS LEARNING.

Kelly' s view of man as scientist, revised to read personal scientist, does treat the learner as a whole person. But this analogy between the anticipations achieved by construing the replications of events, and the theory building and testing activities of scientists, has its limitations. If it is interpreted in conjunction with, say, Popper (1972), Polanyi (1967), or Koestler (1964), it offers some exciting ideas about how people might live their lives. But for most of us the ways of the scientist seem less than completely human. What about man as personal artist?

Pirsig (1976) has made the most telling recent statement about what he calls the difference between classical understanding and romantic understanding. The modes in which experience is constructed totally shape the anticipations with which the Kelly-person lives in the world. Pirsig again uses a form of presentation which allows him to play ideas and their conse-quences back and fore, sometimes offering almost textbook (or workshop manual) passages of explanation and sometimes pursuing the narrator's own journey to illustrate his meanings, To heal the classical versus romantic split Pirsig identifies "Quality" as prior. Quality is that valued event which may, later, for purposes of analysis, be sliced into subject and object. Pirsig uses the term "event", as does Kelly. Maslow prefers the terms "peak experience or creative encounter". A creative encounter cannot be valued except by using criteria which arise within the encounter itself. Evaluation is thus self-referent and retrospective, a method of describing and reviewing where one has been. Experience is neither subjective nor objective, quality does not reside in the object. nor is it "just what you like". It is "significantly what you like" and this makes it identical with what Rogers refers to in his third criteria for a fully functioning person:

This person would find his organism a trustworthy means of arriving at the most satisfying behaviour in each existential situation.

The personal scientist must be person before scientist. By fully living in events, trusting his organism as the sounding board for validating constructions of experience, he uses behaviour not as a series of experiments each designed to test some micro-hypothesis, but as the continuing test-bed for his system of construing, This is what Polanyi (1967) meant by tacit knowing. This is self-organised learning. Pirsig identifies this state:

> Mountains should be climbed with as little effort as possible and without desire …. each footstep isn't just a means to an end but a unique event in itself. This leaf has jagged edges. This rock looks loose … It's the sides of the mountain which sustain life: not the top ….
> If you watch a bad workman and compare his expression with that of a craftsman whose work you know to be excellent, you'll see the difference, The craftsman isn't ever following a single line of instruction, He's making decisions as he goes along, For that reason he'll be absorbed and attentive to what he's doing even though he doesn't deliberately contrive this, His motions and the machine are in a kind of harmony ….
> "Sounds like art" …. 'Well. it is art" I say "This divorce of art from technology is completely unnatural."

In all the Oriental religions great value is placed on the Sanskrit doctrine of Tat tvam asi, "Thou art that", which asserts that everything you think you are, and everything you think you perceive are undivided. To realise fully this lack of division is for Eastern mystics the way to become enlightened.

The personal scientist, the Zen master, the fully functioning person, the self-actualising individual, the excellent craftsman and mountain climber are all self-organised learners. They are all optimistic images of man.

Colin Wilson's (1972) robots are images of what many people fear might be the outcome of Skinner's design of a culture. Wilson describes how when composing a manuscript he is unaware of the typewriter and yet trusts his typing robot to strike the right keys to transfer the ideas in his head into typed words on paper. He then goes on to describe amusingly some of the other robots that service the real Wilson. This propensity of man to become so skilled that routine tasks become non-conscious or habitual has great advantages: and disadvantages. Wilson expresses the fear that his robots may take him over and that his capacity for fully experiencing may be impaired. This is a dramatic expression of our concern with alienation, boredom and the deprivation of self. It embodies the other-organised learner: someone who is controlled by his or her environment and cannot reflect sufficiently to escape. The system of contingencies takes over. Whether we assign the locus of control to a robot inside our skins or to forces in the environment, is as irrelevant as the object/subject dichotomy is in Zen.

What is important is to recognise the dimension defined by the gumption-non-conscious dichotomy or by the difference between self awareness and the subconscious. Man is a learner. How a person's learning is organised, where the locus of control resides, is the key question. Kelly offers an answer. He suggests that if the focus of construing lies higher in the

hierarchy of constructs than that being construed, a person is exercising free will. If the locations are reversed the person is determined. Skinner is more cynical. He suggests that,

> The self-knower is almost always a product of social contingencies, but the self that is known may come from other sources. The controlling self (the conscience or superego) is of social origin. but the controlled self is more likely to be the product of genetic susceptibilities to reinforcement (the id, or the Old Adam).

The controlling self generally represents the interests of others, the controlled self the interests of the individual. Where does this leave man the self-organised learner? Self-organised learners control their own destinies. Other-organised learners are victims of their fate. We are all both.

PUBLIC KNOWLEDGE AND PERSONAL KNOWING

Part of the message of the preceding sections is that we have positions not only in time and space but also in meaning. The pursuit of one objective reality is as self-defeating as the assumption that everything is totally subjective. We are not simple automata to be moulded by patterns of contingencies of reinforcement: nor are we able to invent any personal reality we choose and then operate freely within it.

If a sheet of plate glass is placed across a trail that is familiar, not knowing it was there would not allow us to walk through it. The behaviour of others occupies our experience. The hidden observers who placed the glass in our path would perceive us behaving in a manner compatible with their constructions. Our behaviour would occupy their experience. But this does not mean that members of the Ojibwa tribe, exposed to the same experience would necessarily construe it as walking into a sheet of plate glass. As members of Western civilisation we have arrived at a point where we construe certain events as encounters with sheets of glass. Replications of such encounters with shop fronts, bathroom shelves and glass-topped tables in the context of others stabilise our constructions of such experiences. We construct our social reality.

Among members of an isolated close-knit community the human capacity to construct individual meaning poses little difficulty. Events are shared and constructions of experience are mutually cross-validated. So they go unquestioned. The artifacts and technologies are familiar to everybody. Skills are shared and passed from one generation to the next. Culture, society and its institutions remain static or evolve so slowly that the awareness of the process of construction remains minimal. The encoded knowledge of the community, the writings, the music, the visual arts and technology are incorporated into the contemporary constructions of experience. If life is hard, hazardous or demanding, common immediate needs create a system of intentionalities which is shared by all members of the community.

Anthropologists have provided gradually improving descriptions of such shared and unquestioned realities. But the anthropologist also inhabits a social reality of his own. Levi-Strauss (1962) has gone some way in showing how the very patterns of individual psychological function are moulded by and yet contribute to such shared systems of meaning. He illuminates both the integrative functions which they serve for their participants (e.g. the naming of the Penan) and their incomprehensibility to outsiders (e.g. Needham's inability to enter the husband's construing of the dangers to himself during childbirth and the first few weeks of the infant's life). The social psychology of Mead (1934) and the writings of Shutz

(1967) also illustrate man's struggle to come to grips with his own nature. Each in his own way grapples with this problem of public knowledge and personal knowing. But they remain constrained by the dichotomy between subject and object which Pirsig disavows. Paradoxically it is this very dichotomy which prevents us from fully understanding what it is to be an individual.

Personal knowing does not take the same form as public knowledge. The individual who attempts to achieve it by carving pretty pieces from the public store and stringing them into a necklace to be worn with pride does not meet Rogers' criteria. But this is what most educational institutions value. Their content preoccupied examinations succeed in seducing the learner away from his or her own involvements into a false valuing of public knowledge, not even for its own sake, but for public recognition. Only the eccentrics and mavericks waste their time whittling away at the products of their own experience to produce beautiful and functional clothing of their own. Leonardo da Vinci has expressed this as follows (MacCurdy, 1938):

> Those who are inventors and interpreters between nature and man as compared with the reciters and trumpeters of the works of others, are to be considered simply as is an object in front of a mirror in comparison with its image when seen in the mirror, the one being something in itself, the other nothing: people whose debt to nature is small, for it seems only by chance that they wear human form.

The self-organised learner interacts with the mind-pool of human culture (Harri-Augstein, 1978) to construct personally satisfying, significant and viable meanings. Such meanings allow the individual to continue to transact effectively with the events, people and objects which make up the realities of his or her world. These personal understandings offer better insights into individuals' own processes and enhanced communication with the processes of others. Awareness and control of the process by which meaning is attributed enables the self-organised individual to act in ways which facilitate competency in ongoing creative transactions with chosen realities.

Learning how to learn frees the personal scientist from the shackles of the mind-pool and the robot in man becomes servant rather than master. The maverick converses with the social system of public meaning, remaining free to interact with it in personally meaningful terms, so that living, by doing, talking, thinking, feeling, investigating and sharing becomes a creative experience as individuals seek to express and find themselves within their social context, the content and the purposes of the mind-pool itself becomes changed. Personal knowing and public knowledge are part of the dynamics of individual and social learning processes.

THE RELATIVITY OF PERSONAL KNOWING

Each person lives within their own system of meaning. But their personal meanings are part of a larger system of meanings within which they have some location, albeit changing and not totally specifiable. In the study of learning this relativity of personal knowing can be used to illuminate some crucial issues. Learning is not an observable fact: it is (as is everything worth knowing) an inference which can be drawn from behaviour and/or experience. Who is to draw the inference? Ninety per cent of all the evidence on which theories of learning are based derives from observations made by the teacher (experimenter) in terms which he had carefully planned before the event. In a few studies the learner is his own experimenter. He is

given a purpose and evaluates his own behaviour and experience in terms of prospectively determined criteria. Only in the more fringe literature (Harri-Augstein and Thomas, 1977b) is the learner encouraged to experiment openly and then to evaluate the outcomes retrospectively. Yet, these are the conditions of the creative encounter and the peak experience. The following three by two classification indicates six perspectives from which learning can be inferred (Fig. 1). In addition to the point of view of the observer(s) there is also the time perspective.

These perspectives all offer possible constructions of the experience of the same event, but each on its own leads to a very different psychology of learning.

Such personal systems of meaning might be envisaged in descriptive terms. If each person has a system of personal constructions, then to the extent that there is commonality between personal systems they map one on to another. An analogy would be to a series of aerial photographs. By careful scrutiny and by allowing for the distortion introduced by the perspective, distance and angle from which each photograph was taken, a composite view of the whole terrain could be achieved. This is the rationale behind any belief in objective reality. The analogy serves well for a social system in which experience is widely shared. change is slow and in which intentionality is coherent for the whole community. Ethologists studying insect communities or the social systems of animals (Ardrey, 1972) are, from a behavioural viewpoint, able to achieve just this type of description. But people are in a funny position when they turn to the study of people. Imagine the inspectorate, teachers and pupils in a large comprehensive school in East London. Is there any one coherent system of meaning which could contain each personal knowing as a part? It is extrapolation from the circumstances of the behavioural biologist that has led so much of sociology astray; and with it those components of psychology that rely on concepts deriving from this approach. It is here that Kelly's message sounds loudest and most clearly. It is not the study of behaviour in itself which will improve our understanding of people. It is the exploration of how constructions of experience relate to behaviour and how the consequences of behaviour relate to the reconstruction of experience which offers the most fruitful openings for increasing our awareness of ourselves. It is by pushing himself to the limit that Jonathan Seagull discovers himself.

Systems of construing, the construction of personal experience, is prior. It is the only place that each of us has to start from. This is why Rogers and others have gradually come to insist that the prime evaluation is necessarily self-referent. It was Descartes' base. Rephrased he might have written "I construe therefore I am" or" I think, feel and act, therefore I am becoming" . Juxtaposed with this is the feeling "I can occasionally know nature or another, therefore I have value or quality in Pirsig's terms". How can we grasp this nettle? One way through is to take this redefinition of Descartes' position totally seriously. Seek to know thyself. Meditation, archery, religious experience, boxing, acting, prostitution, flower arrangement, have all been claimed as vehicles for coming closer to a full understanding of "self". The Upanishads (Muller, 1962) probably contain the most comprehensive analysis of man studied from within. Physiology and the new brain studies (Blakemore, 1977) would locate the sources of awareness centrally in the brain. As the brain both lives within the body and controls it, this symbiotic relationship offers a solid "scientific" basis for believing such exploration possible. The Yogi is more practical living proof.

Achieving the awareness that allows precise, thorough and delicate control over one's own processes, not necessarily construing them in physiological terms, would appear to be one

L E A R N E R	T E A C H E R	O R G A N I S A T I O N	
L_P	T_P	PROSPECTIVE CRITERIA O_P	
L_R	T_R	RETROSPECTIVE O_R CRITERIA	

Fig.1

significant aspect of becoming fully functioning or self-actualising. Skinner argues that the body is merely the continuation of the system of external contingencies within the skin. But for him the relative privacy of what goes on in there makes this area of experience less amenable to control. Disciples and fellow-travellers in the behaviourist tradition have taken up this challenge and studies in self-control (Goldfried and Merbaum, 1973) raise some very fundamental philosophical issues. If the person once accepts responsibility and takes control of his or her own programme of training, is he or she not seizing an opportunity for self actualisation with all the technology of behaviour available as a resource? Listening to internal processes to reinforce the ones you value is behaviourally almost identical to meditation! Perhaps the constructions of experience are different!

One important aspect of the relativity of personal knowing derives from the inescapable fact that we see ourselves as members of varieties of the same species. To turn inwards is to turn to what we all have in common. The common humanity of man is perhaps no more, but is certainly no less than that we all live in symbiotic relationship with very similar organisms. There is no reason to doubt that in common with other species human beings are born with certain constructions of experience. At one level this may be no more than the selectivity produced by the particular sensory systems with which we are endowed. But the endowment probably also influences the ways in which sensory information is processed. Patterns of processing common to all members of a species may well explain replicating myths and archetypes.

THE MIRACLE OF CONVERSATION

Jung (1933) has postulated a group unconscious and has explored what he saw as the repeating patterns in the mythologies of man. For this he is popularly either dismissed as a mystic or revered as a mystic: but there has always been an undercurrent of serious interest in Jung's work and this could now be re-emerging into the mainstream of psychology. Chenault (1969) attempts to rehabilitate the word "syntony". She has written,

> Specific, partial exceptions to the traditional Aristotelian bind can be found in certain aspects of Jung's self-actualisation, Adler's creative self, Framm's concept of man as both part of nature and separate from it, Allport's proprium which rejects the self as a discrete entity, Rogers' continuing process of becoming, and Maslow's rejection of the traditional distinctions between sickness and health.

Working from quite a different locus of attention, Pask (1975) has introduced the notion of P-individual as a necessary aspect of what he calls the new cybernetics (in contrast to classical cybernetics). For Pask the P(psychological) individual is an entity arising out of the properties of a communication network. For the authors this concept of P-individual has served to contain certain elusive ideas. Pask has a well specified definition for his entity. To avoid possible confusion by our less rigorous usage. the term "C-indi" will serve our purposes for reasons which will emerge later. Experience is prior. Personal knowing is immediate experience. It is only as we reflect upon our knowing that difficulties or doubts about perspective arise; but it is only by reflecting upon our knowing that we increase our capacity for knowing in the future. Thus" P-individual" can be seen as a convenient label for that which has psychological coherence for the duration of an event, encounter or occurrence., It is that which can converse (i.e. participate in a conversation). For Mair (1977) a person may be construed as a community of selves: for Henry Kissinger, nation might speak unto nation. For Pirsig, and in "Zen", there are periods in which man and nature merge.

These periods of psychological coherence are the essence of the conversational exchange: but they leave us facing a dilemma. The whole frame of our manner of thinking about these issues is challenged. Communication consists in the exchange of messages. At the behavioural level we can see and hear it happening. A Bales' interaction recorder will enable us to record who talks to whom, when. Communication networks remind us of the telephone system. There is sender, message and receiver. Two-way communication gets a little more complicated. The participants alternate the functions of sending and receiving. The two person system (people) as a whole takes on characteristics which were not inherent in the individuals as separate entities. The properties arise out of how the parts exchange meaning together. How do they link? Two systems running separately can temporarily synchronise becoming one. Their functions interrelate. One conversationalist is not empty of meaning while the other is talking, nor is he or she necessarily receiving the message which is being sent. Both participants if they are actively engaged, are running a developing system of personal meaning. The exchange influences both systems and occasionally, in the creative encounter, the two temporarily coalesce to form one C-indi. After the event the two individual people go their own ways carrying their own constructions of the event with them. It is this experience which proves Descartes wrong; or not completely right. He came upon his insight after a long period of isolated meditation. Had he been in love, or on a walking tour in beautiful country he might have created a different insight. For example: "I can occasionally know nature or another, therefore I have value (or Quality)" suggests that it is the miracle of conversation which might better be accepted as the basis of our becoming. This assumption clears many psychological and philosophical obstacles out of our path. Coupled with the C-indi proposition the way looks clear.

(1) Parts of me can converse, therefore I am becoming.
(2) I can converse with nature and with others, therefore I have value and can experience quality.
(3) Conversing is not pre-emptive, it does not imply identity of meaning, only the sharing of experience.
(4) Therefore all personal knowing is prior but is positioned in conversational space. That is where meaning lies.
(5) Each position in conversational space has its own perspective. Both with respect to others and with reference to time. Thus, it is only by achieving a full relativity of meaning that conversation can be enhanced and we can all as self-organised learners be free. We might even learn to fly.

TOWARDS A CONVERSATIONAL PARADIGM

The miracle of conversation is then the starting point. The "human scientific" enterprise (Giorgi, 1978) is to be constructed around this assumption. If people are to understand people they must converse. Not only must they record behaviour but they must also seek those constructions of experience which the behaviour expresses. In the absence of true conversational events such evidence will not emerge and cannot be transmitted. A conversational media for the exchange of human research findings is also a prerequisite for the growth (or even birth) of such a human science. It is the need to create these conversational media which has led so many potential human scientists to experiment with novel ways of transmitting their ideas to others (e.g. Carl Rogers' workshops, I. A. Richards' "Beyond", the bar at a conference and the PEGASUS online computer program). It also explains the incredible repeating disappearance of the person from psychology. This can now be seen as perfectly natural phenomena, like attempting to transport liquid nitrogen in open

tanks exposed to air at normal temperatures. It disappears. Psychology's formal attempts to transmit our condensations of the person fail when we do not formally create the minimal conversational conditions in which this can be done. The person evaporates. More infuriatingly, informal or lay psychologists and even psychologists when they are being lay or informal, already have a tacit understanding of the experiential technology required. They talk to each other; not in the frozen exchanges of pre-programmed messages or po-faced texts which sink an increasingly opaque barrier into attempts to converse; but responsively, creating little islands of conversational event which just occasionally gel into a fully fledged encounter.

What are the requirements for a conversational methodology'? They are the conditions for creating conversational space. What are these conditions'?

A first approximation would be to have two or more people in the same place at the same time. This is certainly a crude technique for enriching the strength of the solution in which conversational material is dissolved, but it will not in itself precipitate out any conversational events. Nor is more than one person necessary. Pirsig's narrator appears to converse with his motorcycle. You, the reader, may feel you are conversing with this article; and the authors have experienced conversation whilst seated alone at a computer terminal. But these are conversations in which the C-indis involved are not the entities of the apparent subject/object relationship. The C-indis all extend into the human being. (The evidence is that two motorcycles cannot converse) but one C-indi at least entails some part of the object, e.g. motorcycle. (The evidence is that removal of the motorcycle would disrupt the conversation.)

What are the conditions for the creation of conversational space? They are as yet not fully known. When two people appear to converse the C-indis involved are not necessarily, or even often, co-existent with the objects within the separate skins. Personal meaning exists in conversational space. Conversational space is created only in the presence of personal meaning. Under certain conditions the space will shrink, reducing the meaning. In other conditions the space will expand, allowing the growth of meaning. Conversational space is experienced as the context of personal meaning. It has no fixed dimensions, being always created to contain at least two systems of personal meaning. It is defined by the modes of expression in which these meanings are exchanged. It is the manner in which these two systems of personal meaning interrelate that determines the dimensionality and thus the capacity for decay or development. Languages in the most general sense are the modes in which the interrelations are negotiated. Meta-languages are the modes in which the process of interrelating is itself negotiable. The power of the meta-language determines the capacity for growth. Tacit understanding of the required experiential technology shows that the design of a conversational amplifier should present few problems. Part of this design will be found in Chapter 4.

Earlier work (Harri-Augstein and Thomas, 1976) has explored the nature of a "learning conversation". This was found to entail at least three interwoven dialogues, one about process, one relating to emotional *support* and one concerned with the creation of *personal referents* to replace the external contingencies of reinforcement. The ways in which these dialogues combine create the conditions for conversational space. This is probably best con- strued as non-euclidian since it appears to have levels corresponding to the time-span or perspective involved. In learning conversations it is found useful to construct at least three levels. The central level is the *content of the learning*: in one direction this connects with life. The *life conversation* is about the relevance of learning. It is about the construction of

personal knowing. The other direction is towards the process of learning, awareness of this enables *learning-to-learn*.

The concept of a conversational methodology points to the contribution which psychology might make to the evolution of man. By construing our task as that of psychological tool-making we move away from the description of people in our terms and move towards a systematic technology for enabling each individual to become more aware of his or herself in their own terms.

Conversational tools may take the form of contentless heuristics (e.g. the repertory grid. structures of meaning (Harri-Augstein, 1978) and client centred therapy) which control the form of the conversation whilst leaving the content to be contributed by the participant. Court procedures offer a similar paradigm. Other conversational tools have more specific purposes enabling certain parts of the conversation to be enriched beyond the capacity of the individuals involved. Many existing psychological techniques take on new meaning when they are perceived from this perspective. Tests can be used not as the measuring devices of a secret society, but as awareness raising devices. The responses are behaviours, which mirrored back to the behaver heighten awareness. The measure becomes negotiable in conversation and it no longer acts as stigma or accolade. Even a selection procedure can become truly conversational leading to an agreement which includes a large measure of self-evaluation. But the mirror must be clean. In learning conversations the authors have developed and used extensively a series of specific tools which record learning behaviour and use the behavioural record to talk the conversational learner back into a re-construction of the learning experience. This heightened awareness acts as a pre-condition to significant conversationally-aided change.

By definition a conversational tool is essentially a crutch or aid to conversation which becomes redundant as the structure is internalised by the participants, who can then control the conversation from within themselves. Thus. by taking the apparently meek role of tool-maker we enter our true domain, the person.

PSYCHOLOGICAL RELATIVITY

All knowing is relative. This thought lies behind all nihilistic philosophies. It is also expressed (Evans-Wentz, 1960) in the Sunyavada of Nagarjuna's Mahayana Buddhism. Meaning is relative. The conception of Kelly-like systems of personal meaning existing in conversational space offers the ground rules for development of a theory of psychological relativity. The conversational methodology would give such a position a cutting edge which would enable it to function effectively: serving as the conceptual basis for all manner of negotiation and collaboration. This operational effectiveness would steer it clear of the emptiness of extreme nihilism.

Relativity is one of a system of associated concepts which have transformed both the power and the appearance of modern natural science. Uncertainty (Heisenberg, 1930), discontinuity (Max Planck, 1949) and relativity (Einstein, 1950) are all characteristics of the now public meanings which are differentially attributed to reality in our personal systems. Each of these has its equivalent in descriptive systems available to the psychologist. trophe theory stand ready for a full-blooded relativism to remove the absolutist base of much of our residual thinking. Each node of personal meaning offers a perspective from which' to' view and/or re-view the others.

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Personal construct psychology offers a perspective on behaviourism which may serve to close the gap between the experiential and behaviourist technologies. In PCP validation serves an apparently similar function to reinforcement in operant conditioning. The immediate validation of the construction of experience which triggered certain behaviour, functions only if the anticipations inherent in that construction of experience are validated by the reinforcement. After a few trials the constructions would lead to the anticipation of the reinforcement. The learner could trust his habitual constructions of experience and Rogers' criteria for significant learning would be met. But as experience grows, the construction of experience is elaborated and the anticipations become longer-term. By analogy to the structure of the TOTE system (Miller et al., 1960) the higher order construing would require an increased time-span before validation. This delayed gratification or validation of longer-term anticipation, is one of the characteristics of civilised man. It is here that humanistic and behavioural psychology meet. The humanistic approach allows us the freedom to invent our own understanding of "what influences what". It allows us to view events selectively; anticipating acting and construing the perceived short and long-term consequences of our actions. Thus, by changing our ideas about what relates to what, we change the direction of our search for validation of our anticipations. Our models of the world influence how we may be in it. For the behaviourist the patterns of reinforcement are given. The contingencies of reinforcement are prior. Control in the conversation lies firmly with the constructor of the environment. Religions vary in their views on this issue; Richards' (1973) introduction to great literature points to the same issue. Freedom exists in the acquisition of a meta-language in which to construe and therefore control the conducting of conversations with others of our species, with other species, with nature and within ourselves. By construing their own nature the human race can create their own destiny. By construing the nature of the universe we have the freedom to explore it and so change our minds.

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