Close

(Chapter in BOOK)

Contruct, Reflect and Converse

The Conversational Reconstruction of Social Realities

by

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Construct, Reflect and Converse:
The Conversational Reconstruction of Social Realities

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INTRODUCTION

George Kelly's original statement (Kelly, 1955) offered elegant form to a model of man (Shutter, 1975) which embodies the humanistic, person-centred approach in psychology (Bugental, 1967). Personal construct psychology identified individual constructions of experience as the source of a person's behaviour: and then re-construed behaviour as the test-bed for a person's constructions. Kelly fashioned his own experience including that as psychotherapist and teacher into a statement which was specific, coherent and comprehensive, i.e. summarised his position in a fundamental postulate and ten corollaries. These warrant the description "scientific theory" as that term is used by the more rigorous exponents of the philosophy of science (Popper, 1972). This is uncommon in psychology where the term "theory" is applied to almost any attempt at explanation (Bannister and Fransella, 1971) and to where the expression "scientific theory" has for too long been associated with physical instrumentation and with a non-phenomenological or anti-experiential interpretation of repeatability (Rogers and Coulson, 1968).

The form given by Kelly to his model of man is, by its very nature, contentious. It may be inhabited by any system of constructions which would constitute "a person". Indeed, as will be argued later, it may be animated by any system of constructions which would constitute "an organism".

The potency of Kelly's published system was that it offered not only a theory but also the beginnings of an integral and symbiotic methodology. To claim that Kelly's theory and repertory grid techniques mark a watershed in social science comparable to Copernicus and the telescope in natural science, may not appear historically so outrageous, as it now does to many contemporary psychologists. Together the theory and the methods contain the embryo of a new breed of aids for navigating the psyche and for exploring and charting personal, interpersonal and social space. Most of these new psychological tools have yet to be invented but some basic design principles are beginning to emerge. As these are translated into practice they will help equip the workshops wherein vehicles for journeys into new worlds of human experience are being built (Castaneda, 1969). But as yet the theory is undeveloped (Mair, 1977; Radley, 1977) and the methodology only at a stage analogous to the technology which produced the rough-hewn lenses of the pre-Galilean era.

Awareness and the Focused Grid

How can the lens be ground more truly? The repertory grid displays elements of a person's experience and how he or she orders these as arranged along personal "constructs". These constructs are sections through the individual's system for attributing uniquely personal meaning to experience (Ogden and Richards, 1923). The elements and constructs are represented as the columns and rows in a matrix. They are normally recorded in the order in which they are elicited. A detailed description of the procedure and variations on it are to be found in the "Manual for Repertory Grid Technique" (Fransella and Bannister, 1977). But this table of results (i.e. the raw grid) offers participant explorers of their psyches only very

fragmented kaleidoscopic glimpses of their constructions of experience. Careful professionally guided talkback through the pattern of meaning hidden in this display is required to enable the participating psyche explorer to interpret this data in significant and personally relevant terms (e.g. Fransella, 1972). The FOCUSED grid technique (Thomas, 1976) uses a two-way re-ordering procedure to enhance the quality of the grid display. Similarity matrices are calculated separately for elements and for constructs (Bannister and Mail, 1968). These are cluster analysed to reveal that unique re-ordering of the elements which produces minimum cumulative difference between adjacent columns and that re-ordering of constructs which produces minimum difference between rows. In the SPACED FOCUSED grid display (Thomas, 1978) the distance between re-ordered rows and columns is inversely related to their similarity. Figure 1 shows how this illuminates the constructions of experience employed by one individual manager in evaluating the people who work for him.

The earlier factor analytic methods for seeking patterns in grid data contain the danger of mystification. Having no appreciation of the mathematical manipulations that transform the grid into the display, the client must take the resulting graphical representation on trust. This is also true for many of the psychologists who use the INGRID analysis. In contrast to these factor analytic methods (Slater, 1976) the focused grid display preserves all the elicited data, only systematically reorganising it to clarify the experiential image. The path from raw grid to focused grid is crystal clear. By placing "like" along with "like" the pattern of construing is brought into focus revealing relationships which were implicit but not apparent in the raw grid. Talking a person back through the experience of eliciting a grid is greatly enriched by using the SPACED FOCUSED grid as the basis for discussion. The emphasis moves from the task of identifying the relationships between elements and constructs to an appreciation of the implications of the revealed patterns of meaning. The originator can more easily comprehend the pattern. The role of the professional guide, interpreter, intermediary or change agent is subtly transformed. Released from the need to seek for these patterns in the data, the guide is free to attend to the process whereby the constructions of experience are themselves construed.

The talkback conversation can be guided in several directions. It can be conducted in the Rogerian mode (Rogers, 1969) to enable the client to reflect on and reconstruct his or her own experience in his or her terms. Or the focused grid may serve as a starting point for intentionally directed change such as that involved in learning about statistics or management. As a personal scientist, the individual may be exploring completely new ground or he or she may be investigating familiar public ground to make it their own; to use it for uniquely personal purposes. The quality, structure and control of the talkback or talk-on conversation may vary from Rogerian to Skinnerian. The form it takes emerges from the shared intentionality of the co-participant explorers, who may decide to reflect, to elaborate, to refine, to differentiate, to extrapolate and to reconstrue their constructions of experience in those ways best suited to their purposes. The SPACED FOCUSED grid provides one experiential "still photograph" as an aid to such exploration.

Two-way cluster analysis lends itself to real-time data processing. The speed of an online computer allows the grid to be focused at each stage of the elicitation procedure without disrupting the flow of the conversational process. The opportunity to reflect upon the focused part grid enhances the quality of subsequent elicitation. The elicitation procedure can also be programmed to become part of an online computer-aided conversation with oneself. The conversation is guided by the emerging patterns of meaning in the progressively focused grid.

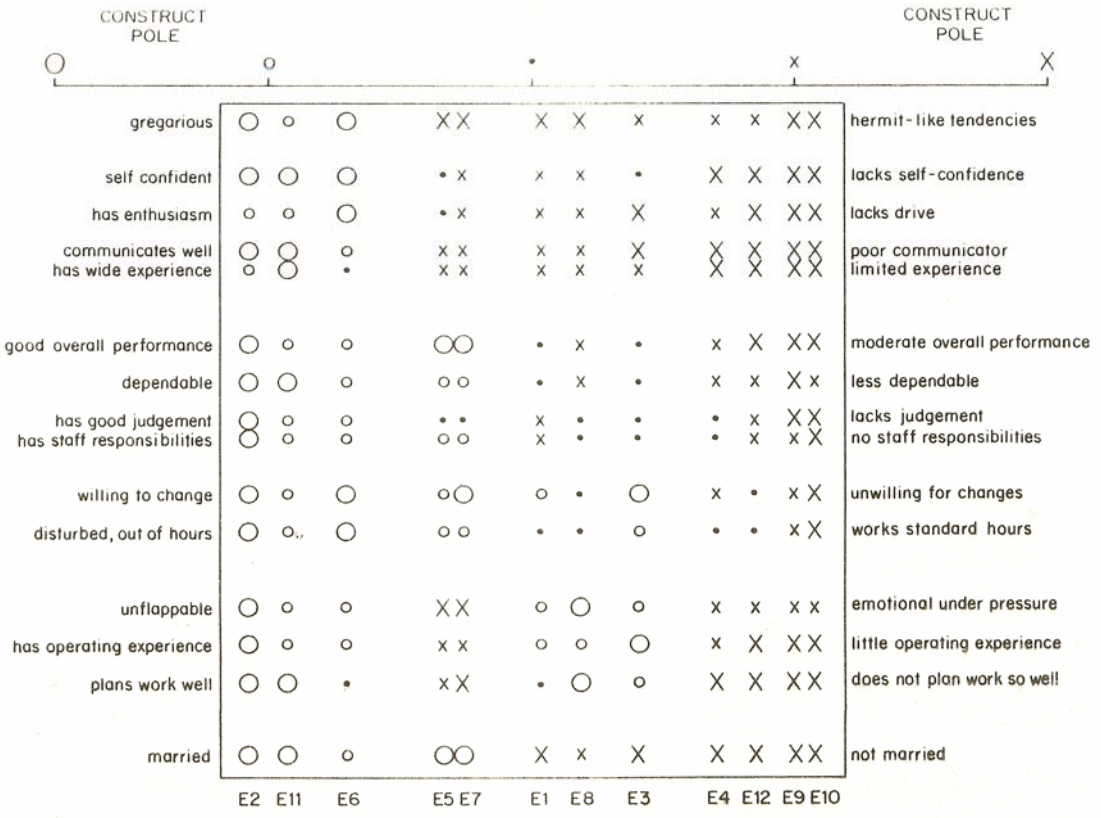

Fig. 1. A spaced focused grid.

The DEMON program (Thomas, 1968) and its PEGASUS derivatives (Thomas and Shaw, 1977) provide such an online conversational facility which has the advantage of being completely confidential. The data file on the computer may be deleted at the end of the online session and all record of the conversation disappears.

Another less spectacular method of real-time data processing is a manual grid sorter specifically designed to facilitate the search for structure during the face-to-face elicitation conversation (Thomas, 1972). This recruits much of the advantage of the on line interaction without the cost of computing and has the added advantage of remaining visible and completely under the control of the co-participants.

But such techniques are only the first crude attempts at experiential lens polishing. There is nothing sacrosanct about the tabular form of the grid. In fact Kelly himself saw construct systems as fragmented, partially permeable, hierarchical structures. There is almost infinite scope for the development of methods for eliciting and processing and displaying an individual's constructions of experience (Harri-Augstein, 1978) and for using these to generate powerful and relevant learning conversations in education, training and therapy. "Beyond the grid" technology is at the early developmental stage. It can be assumed at all subsequent points in this chapter that whenever repertory grids are mentioned as the basis for conversational techniques, "models of the psyche" techniques could eventually replace them. Awareness of one's own constructions is the particular condition of man (Sherrington, 1952). Consciousness has been variously defined (Tompkins, 1963; Pask, 1973; Mair, 1977) but in essence all definitions relate to this ability to construe one's own constructions. The Sociality Corollary states that ability to construe another's constructions is a necessary prerequisite for entering into social process with that other (or to be more precise, the ability to construe the construction processes of another is a prerequisite condition). Perhaps personal construct psychology needs some additional corollaries, one of which would relate to consciousness or self-awareness, e.g. SELF-AWARENESS COROLLARY.

To the extent that a person construes his own constructions of experience, he or she acquires consciousness. To the extent that a person construes his or her own processes of construction he or she acquires more complete awareness of themselves as a person. Thus Kelly's reflexive use of the grid can be developed to encompass this process of meta-construing. Formal recognition of this possibility adds a new dimension to his theory. But for investigating and enhancing the quality of interpersonal and social processes, the individual grid and its derivatives are not sufficient.

The Two "Social" Corollaries

Kelly's theory contains two corollaries which may be construed as primarily relevant to social interaction.

THE COMMONALITY COROLLARY:

To the extent that one person employs a construction of experience which is similar to that employed by another; his processes are psychologically similar to those of the other person.

THE SOCIALITY COROLLARY:

To the extent that one person construes the construction process of another; he may play a role in a social process involving the other person. It will be demonstrated that these are necessary but not sufficient for an adequate understanding of interpersonal and social process.

VERBAL OR OPERANT COMMONALITY?

Many studies in the literature treat repertory grids as a branch of psychometrics. The assigning of unfamiliar "offered" elements to the only partly-defined poles of "offered" constructs are rightly treated as questionnaire or semantic differential data. "Experientially-unlike" is equated with "unlike" and results crushed into a common mould using agricultural statistics. When data is collected and analysed in this way the designation "repertory grid" ceases to have any meaning. The offering of verbal labels does not necessarily tap similar elements of experience in each user, nor does the two-ended verbal description of a rating scale equate with the bipolar differentiations occurring naturally in each person's construing. When the results from such mass surveys are compounded into composite pictures of socialised man, i.e. a teacher, a manager, a schizophrenic or a psychiatrist, the model of man that emerges has little in common with Kelly's personal scientist. But let us not condemn such well-established practices. There is nothing inherently immoral about them. They are the social science equivalents of the astrologers' use of the telescope. Hopefully, speculations built from such studies will eventually find their proper place within the pool of human knowledge alongside Pythagoras's theological ruminations on the mystical properties of the square on the hypotenuse. They are interesting exercises in the use of human ingenuity which did in fact yield valuable, if unexpected, by-products. If commonality in Kelly's sense is not to be established by mass survey techniques, what remains? A more comprehending look at the theoretical issues is always a good empirical starting point.

An early study by Mendoza (Mendoza and Thomas, 1972) showed that people looking at an art object (an Indian miniature painting) each make their own visual differentiations. The components or elements out of which one person constructs his experience of the painting are not those through which another construes it. When one individual’s personal elements are elicited and used to construct a repertory grid, the resulting constructs are also extremely personal and idiosyncratic. The words evoked as pole descriptors often convey only the most shadowy meaning to anyone other than their originator (Fig. 2).

This is because, for most of us, the experiencing of art objects is private and un-communicated. We either have no language in which to express it, or only a very eccentric treatment of the resources in the public word pool. This is in contrast to areas of well established public usage, such as, for example, coins of the realm, where continual social validation creates a shared terminology which is mapped, in an apparently agreed manner, on to similar constructions of experience.

Between these two extremes lies a continuum of possibilities for commonality. For example, two similarly expert bicycle riders almost certainly have quite large areas of similarly constructed experience but they may have no agreed language in which to identify and exchange it. Polanyi (1967) has called this non-conscious understanding "tacit knowing". In contrast to the bicyclists, two students discussing their newly acquired understanding of personal construct theory may engage in sophisticated exchanges about emergent poles and constellatory constructs. Asked to elicit a grid, raise their own awareness, or to converse effectively together, however, their understanding is revealed as a free floating, merely verbal, system unrelated to any usable construction of concrete experience.

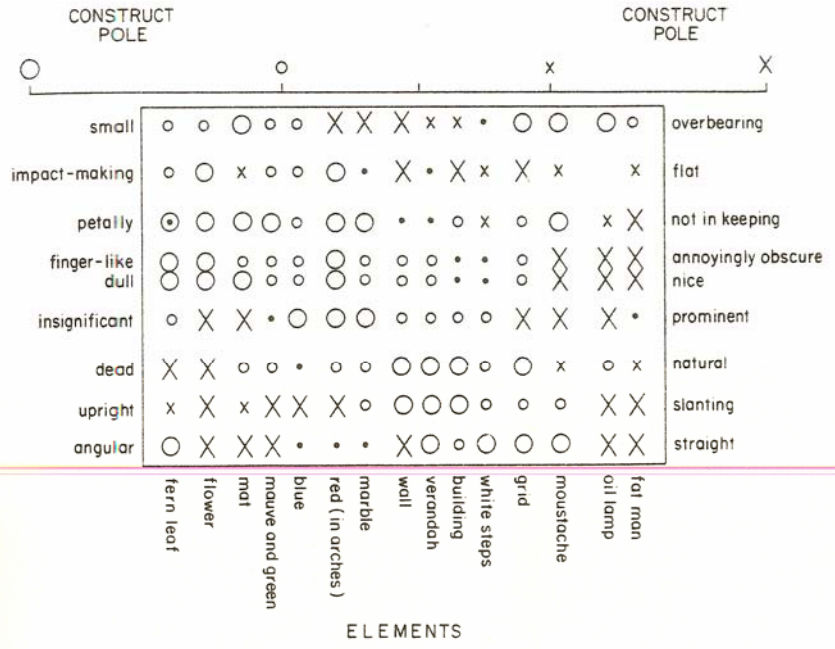

Fig. 2. Grid of perception of an Indian miniature.

How then can the repertory grid be used to explore commonality? Among those studies which examine individual experience, Stewart (1976) and Duck (1973) have inferred commonality from similarity of elicited verbal labels. Among members of a freely communicating society talking about well established everyday matters, similarities in personal vocabulary may provide a good first approximation to similarities in constructions of experience. But even a superficial look at the ascent of man (Bronowski, 1965) reveals that his painstaking attempts to achieve significant shared new understanding often founder on the difficulties encountered in creating and maintaining an operationally common terminology. There is no basis for assuming that what a close-knit cultured or professional community find difficult to achieve in two or three generations should be any easier for an aggregate of only inadequately communicating individuals to achieve in a few committee meetings.

An alternative approach is to ignore the words people use to describe their constructions and to define an operational or operant commonality. What would this involve? If two people sort the same set of objects into the same two groupings, does it follow that they have some commonality of construing? Possibly, if they agree that certain additional objects would go into one or other grouping whilst certain other objects would not go into either, does commonality appear more like? Well perhaps. If one of them can take a random sample from a set of objects and operationally define his construing by physically ordering the objects in a row, could the other demonstrate his commonality by adding items from the remainder of the set to this ordering in positions which gain the complete agreement of the first? Well, even within the restricted confines of this experimental set-up that is not exactly what Kelly meant by commonality. He did not equate isolated behaviours with isolated experiences, but as the pattern emerges the similarity grows. Two people who had developed exactly the same total constructions of experience would act similarly, faced with the same events. Similarity of action is some indication of similarly constructed experiences. Confidence in commonality increases when people produce identical orderings of an array of elements.

The PAIRS analysis technique (Thomas et al., 1976) for comparing two repertory grids is based on this assumption. The technique requires that the two people involved share a pool of common experience. They negotiate a set of common elements of experience from this pool. One example might be a set of sculptures among a group of art students; another a set of faults that occur in the paint finishes on a quality car among a group of industrial visual inspectors; and a third might be a set of videotapes showing typical events that occur in the classroom among a group of teachers of ESN children (Pendleton, 1976). Given a shared set of common elements of experience, each of the two participants elicits a separate grid producing their own set of personal constructs. The elements are assigned to the poles of the construct (or rated, or ranked) in the usual way. The assignings of the elements on the first construct in one grid are in turn compared with the assignings of the elements on every construct in the other grid. The highest degree of match with any construct is taken as the degree of commonality of the first construct in the first grid with the construing represented in the other grid. Thus verbal labels are ignored and only operant commonality is noted. The procedure is repeated for each construct in the first grid. The pattern of matching scores indicates the nature of the operant commonality of the first grid with the second. A similar procedure is used to match the second grid unto the first. The two patterns of commonality are not necessarily symmetrical. A few constructs in one grid may fully subsume most of the constructs in the other, whereas the reverse relationship would show a number of constructs with little commonality.

This method has been used with some success by me and my collaborators to study perceptual phenomena and non-verbalised construing, analogous to the art object and bicycling examples. In a study of how visual inspectors construe the quality of ladies' underwear, the PAIRS method was used. Three inspectors produced repertory grids. The analysis showed similar patterns of ordering among a negotiated and shared list of garment faults. These three inspectors also exhibited similar search strategies, as revealed by an eye-movement camera. How well two of these grids related, irrespective of verbal descriptions, is shown in Fig. 3. A fourth inspector, nominally doing exactly the same job, demonstrated quite a different search strategy and produced a grid which a PAIRS comparison showed to have little similarity with the other three (Thomas et al,. 1978).

Such studies are a healthy antidote to any tendency for social psychologists to rely solely on people's verbal descriptions of their constructions of experience. True commonality cannot be equated with either verbal agreement or identical ordering of arrays of elements. The repertory grid must be used to add rigour to a more comprehensive conversational methodology.

A Conversational Methodology

The only valid test of whether two individuals have similar constructions of experience is for them to explore each other's constructions in detail and in depth and to agree what is shared. If a third observer independently attempts to make such a judgement he will almost inevitably construe the constructions in a selective and distorted way. Only by fully entering into the constructions of each, and by participating in the exchange conversations, can a third person hope to make a reasonable judgement about commonality between two others. The exchange grid technique (Thomas and Harri-Augstein, 1977) has been developed in a series of investigations as a tool for enhancing the quality of communication in a learning conversation. In its most elementary form the exchange grid is elicited as follows: Two people identify an area of apparently common experience. Each decides their own set of elements and uses these to construct a repertory grid by any of the usual methods (Fransella and Bannister, 1977). Having completed the grid, each now contributes their elements and their pairs of pole descriptions to a common pool of ideas, out of which each constructs a new grid. A variety of exercises in conversational exchange are now possible:
(a) Comparison of the original two grids reveals the degree of unforced verbal commonality.
(b) Comparison of the two new grids reveals the degree to which the two are willing to create verbal commonality, i.e. use each other's elements and construct labels.
(c) The list of elements and constructs common to the two new grids can be used to extract two verbally common grids. Once completed, these can be examined for operant commonality. Two procedures for making such a comparison are available, the DIFF method merely extracts one grid from the other and displays the pattern of differences; the CORE program (Thomas and Shaw, 1977) uses an alternating iterative process for progressively removing the least common elements and constructs until a shared common CORE GRID is revealed.
(d) Both new grids can be separately focused to examine how the participants each use the other's elements and constructs. Do the foreign Es and Cs form separate clusters or do they intermingle with the originator's Es and Cs'?

Careful conversational exchanges on the basis of (a), (b), (c) and (d) reveal the degree of true commonality and serve to elaborate, refine and extend it.

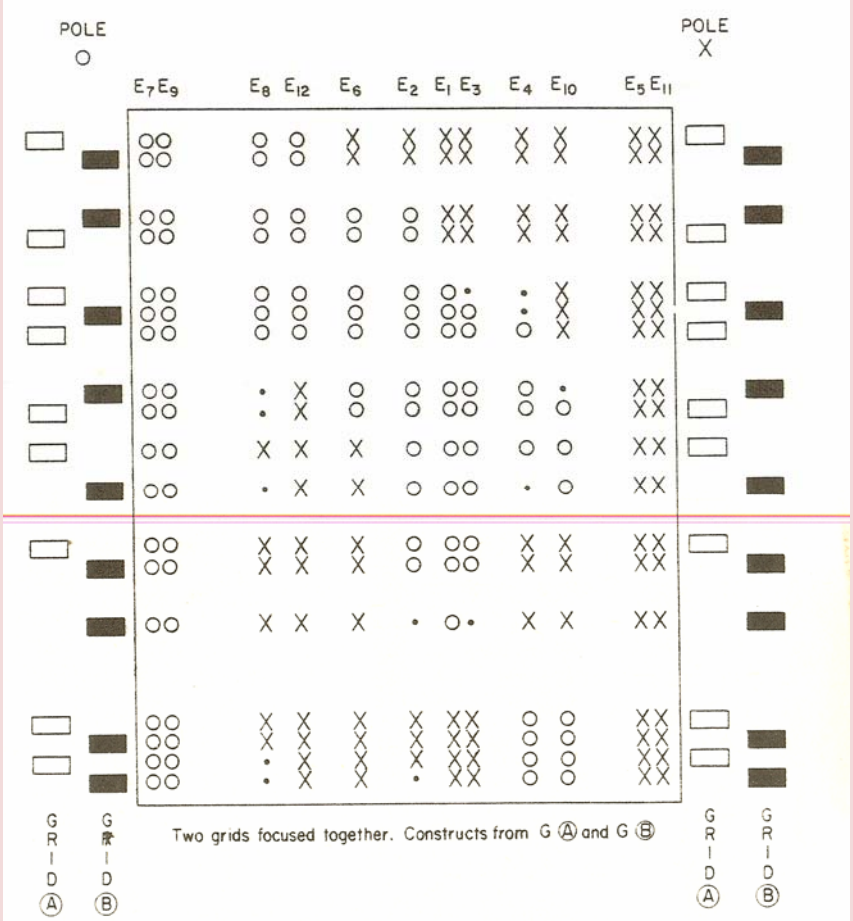

Fig. 3. Two grids prepared for pairs analysis.

A number of investigators using these techniques have reported the creation of apparent "ah-ha" experiences in which some personally significant perceptual, cognitive and affective organisation appears to be challenged as the participant attempts to enter the other's constructions. New constructions of familiar events then emerge and the participant finds himself thinking, feeling and perceiving things differently (Pope, 1978; Harri-Augstein, 1978).

The discussion so far, and a re-reading of Kelly's Experience Corollary, leads to the inevitable conclusion that a pure measurement of true commonality is, by reference to the Heisenberg principle, impossible. The process of measurement inevitably disturbs that being measured. The elicitation process triggers off its own reflective mechanisms and comparison of construings between people inevitably leads to further exchanges. The illusion of pure measurement is best relinquished in the full acceptance of the advantages of a truly conversational technology.

The SOCIO-GRID Technique

The techniques for mapping one grid on to another described in the previous sections can be extended to explore the constructions of experience among a group. Grid-based conversations are used to generate an array of shared elements that span the range of experience which is to form the content of the exploration. Each participant uses this array of elements to construct a repertory grid, producing individually elicited constructs. The PAIRS technique is used to operantly map grids one on to the other. This technique replicates within the SOCIO-GRID analysis (Thomas et al., 1976, 1978). Each grid is mapped on to each other grid in the group and measures of operant commonality are obtained for each pair of grids. The matrix of operant commonality measures serves as the basis for generating a sociometric type of display showing who construes what most like whom (Fig. 4). The analysis also produces a listing of all the constructs from all the grids ordered to illustrate a continuum from those which are most operantly shared by the group to those which are least shared. A MODE GRID is composed from the shared elements and the fifteen most common constructs. The SOCIO-NET display, the commonality listing and the MODE GRID may be used in conjunction with a verbal usage analysis to generate a conversation among group members which explores commonality both operantly and verbally to produce a shared construing of the similarities and differences among their constructions. Thus the technology enables the state described in the Sociality Corollary to be achieved. The basis for social interaction is improved.

Sociality and Social Process

The suggestion for a self-awareness corollary arose from analogy with the Sociality Corollary which states that the construing of another's processes of construction is a necessary prerequisite to entering into social interaction with them. The exchange grid technique offers the possibility for operationalising the study of social process within the paradigm of personal construct psychology.

The exercises described on p. 8 can be taken further. If two people, Sid and Fred, produce grids relating to a shared area of interest, it is possible for them to use these to explore how they construe each other's constructions. One method is for each to produce a copy of their

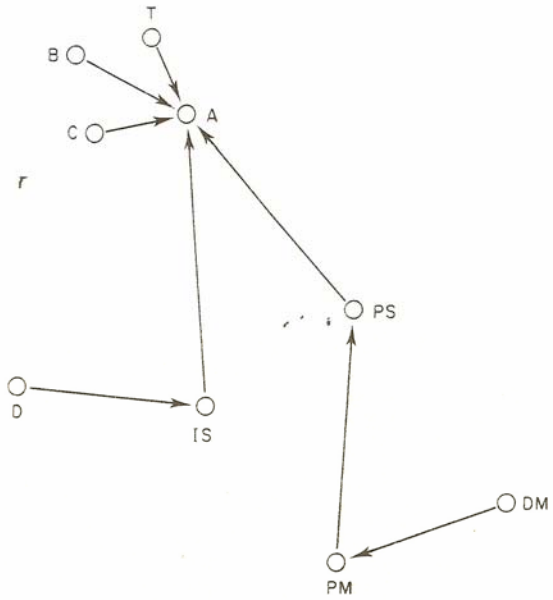

Fig. 4. A socio-net. Key: A, B, C, D = Inspectors; T = Trainee; IS = Inspection Supervisor; PS = Production Supervisor; PM = Production Manager; DM = Divisional Manager.

grid sheet showing the verbal labels of their elements and constructs but omitting the assignings of the elements on the constructs. Sid is then asked to complete Fred's grid and Fred completes Sid's grid. If they attempt to reproduce the assignings as they believe the other originally elicited them, a comparison of the "other's grid" with the original grid (using DIFF or CORE) reveals the extent to which Sid can enter Fred' s, and vice versa, constructions. Let us call this understanding. If the grid is completed as the participant feels the other should have originally completed it, then the comparison reveals the patterns of agreement or disagreement. Mutual comparisons reveal the potential for productive conversation. But Kelly's conception of construing of the other's processes of construction is not properly explored with this methodology. A new grid is required in which Sid construes Fred's processes of construction. An approximation to this is for Sid to participate in an exercise in which Fred's constructs become the elements in a grid for Sid. Sid then explores how he thinks and feels about Fred's constructs and by implication about Fred's processes of construing.

Thus a reconsideration of Kelly's original intentions provokes extensions of the conversational methodology. But this in turn raises questions about the theory. Is the Sociality Corollary sufficient to allow a complete exploration of social process? It is not. When linked with the suggested self-awareness corollary, many social processes are illuminated. A person who construes another's constructions but does not construe his own, will generate a different form of social process from someone who construes his own constructions in addition to the other's. Pask (1975) has proposed a theory of conversation in which he introduces the concepts of object-language and meta-language. These are closely analogous to constructions and construing of constructions. Pask's minimal conditions for conversation are the existence of two participants (P-individuals) each using both an object language and a meta-language. Avoiding, until later, a consideration of other logically possible cases (i.e. object language only on each side or object language on one side and object and meta-language on the other), what does Pask's definition of conversation imply for Kelly's theory? Social process requires self-awareness and sociality, i.e. construing of one's own as well as the other's constructions. But is this sufficient? Reference to the inter-personal analysis methods of Laing (1970) would lead us into their apparently infinite regress. Sid construes Fred's construing of Sid's constructions and his own. This is treacherous ground; co-counselling, encounter group, transactional analysis (Berne, 1972), or social skills training, would suggest that one of the areas which yields the most idiosyncratic forms of construing is where individuals construct their experience of social interaction. By standing on Kelly's shoulders we recognise the need for a contentless model of social process. Each would animate it with their own constructions of social experience. Perhaps a SOCIAL AWARENESS corollary is required:

The forms in which a person construes his or her constructions of social interactional processes condition their ability to consciously influence their processes of interaction with others.

A grid methodology is required to make this operational. The elements of experience are interpersonal events. Work with this form of grid has shown successful results in the training of industrial and commercial managers. The grids were used both to raise their awareness of their own processes of man-management and to trace out the changes in their construing of such interpersonal events before, during and three months after, the training course (Harri-Augstein, 1978).

But what of the "social" processes that accrue in the absence of self-awareness and/or social awareness. The study of social processes among animals (Ardrey, 1972) has been very successfully extended by modern ethologists who appear to use concepts analogous to Kelly's. At the insect level the conception is analogous to an object-object language interaction in Pask's terms. Higher up the phylogenetic scale there is some evidence of embryo sociality beginning to emerge. In the human area it is interesting to realise that the data from which much of traditional psychology has been invented derives from situations which do not contain these conditions for social awareness.

Operant Conditioning, Ethology and Personal Construct Psychology

Bannister quotes Kelly (1970) as arguing that behaviour therapy has been misinterpreted even by Skinner (1957,1971), its inventor. He claimed that it is the patient who is the true experimenter and that the behaviourist-experimenter is merely a technical assistant in the exploration. Tolman (1932) can be seen as making similar observations about Hull's rats (Hull, 1932). Acting as if the patient was unaware of his condition the behaviourist identifies some substance (e.g. food or money) as reinforcing. This reinforcement is then used as the only coinage in a pay-off game. The genius of Skinner's methodology is that because he originally worked with animals he necessarily had to invent a simple form of non-verbal language in which to conduct the learning conversation. Thus the audio tone used in teaching a pigeon to play ping-pong is reconstrued as sign language in which the behaviourist communicates with the real experimenter, the pigeon. The pigeon explores his artificially organised environment, reconstructing his experience of replicating events, to obtain food. Thus Skinner's move towards operant conditioning produced an alternate construction of the position Kelly was advocating. The animal's existing behaviour and therefore its reconstruction of experience was taken as the starting point for the learning conversation. By observing not the behaviour but the meaning of the behaviour within his own intentional system. Skinner is able to conduct the learning conversation in simple non-verbal terms. Schedules of reinforcement and the carefully designed space-time relationships of the Skinner box mechanisms constitute the syntax of a very operational non-verbal language. The delivery of food pellets or tones was carefully designed into the organism-technology system to provide exactly the validation of the construing which personal construct psychology would require. The signals enabled the animal to differentiate and elaborate its constructions of the experience which Skinner was so carefully replicating for it.

The ethologists (Tinbergen, 1953: Lorenz. 1977) were developing an essentially similar conversational technology but they had the situation in clearer perspective. Rather than invent an impoverished language in which to intervene, they learnt the language of the animals, and rather than impose their own purposes as Skinner does, the ethologists observed the emergence of the animals' own intentionality. The animal experimented to discover viable constructions of experience and man intervened to construe the constructions. The ethologists' conversational methodology meets some of the requirements for social interaction which are being developed in this chapter. In their identification of innate releaser mechanisms and in their experimental interactions using these mechanisms, the ethologists are construing the endowed constructions of the other and, thus fulfilling the requirements for sociality. In "Man meets Dog" Lorenz shows self-awareness and social awareness but most people would consider this awareness to remain one sided. Some animal lovers such as Gerald Durrell, Joy Adamson or Gavin Maxwell might contest just how one sided the interaction really was.

There is a generation of Ph.D's to be acquired by carefully translating the methodology and findings of behaviourism and ethology into the paradigm of personal construct psychology. It would be worth doing so. Personal construct psychology would gain much from the rich methodologies of behaviourism and ethology. Those disciplines would be transformed by the creation of one philosophical and methodological continuum in animal and human psychology. There are numerous dissertations I would dearly love to supervise. "The personal construct system of the laboratory rat". "Reinforcement construed as validation of constructions of experience". "The man-animal relationship reviewed". "I construed a mountain, did it construe me?" "Interaction, transaction, manipulation and service as examples of mutually self validating construing", are some of my fantasy titles. Perhaps this reconstruing of psychology might help to disperse the nature-nurture issue. The ethologists' findings imply that construing the replication of events is not the only source of anticipation. Perhaps one ought to argue for a set of ENDOWMENT COROLLARIES:
(i) Organisms are born with a set of constructions of experience (e.g. innate releaser mechanisms); and
(ii) organisms are more likely to acquire certain constructions at certain critical times (e.g. imprinting).

Social Psychological Experiments as Learning Conversations within a PCP Paradigm

Once we acknowledge that all psychological experiments may be more usefully reconstrued as learning conversations, the mystery of much of the shifting "factual" sand on which psychology is built disperses. Currently accepted experimental "facts" are the outcomes of some very peculiar restrictions on conversation. The technical assistant to the participant explorer deliberately attempts to enter an alien system of constructions. As pseudo-scientist he or she assumes some very bizarre conceptual and perceptual blindnesses and may, in using standard forms of experimental instruction, restrict their vocabulary to a non-negotiable fixed sequence of sentences.

But no human can fully role-play this alien. His or her own system of constructions obtrude and the learning conversation is therefore conducted from within a different framework from that pre-planned system within which the "results" are collected, interpreted and reported. It is the lack of commonality between the participant-explorers and their technical assistants which contributes most to the variability of psychological data. That and the participant explorer's inability to construe the constructions of the technical assistant as pseudo-scientist. Rosenthal's (1966) original observations and all the subsequent work on the social psychology of the psychological experiment are most easily interpreted from within personal construct psychology.

Much of what now passes for data in social psychology can, thus, be reconstrued as no more than the ephemeral chit-chat generated within conversations in which one conversant role-plays an alien and the other is unable to construe his constructions: not, in Kelly's terms, a very social process.

The Hawthorne experiment has long stood as a grotesque monument to a very explicit attempt to play out the pseudo-scientific paradigm. The production figures of the relay assembly and bank wiring rooms are the "data" generated in a bizarre almost non-verbal conversation. Lighting and tea-breaks varied and silent observers sat in corners all day totally immersed in what was going on. Elton Mayo and his co-workers had a difficult time preserving their alien role. The Hawthorne plant workers would not or could not maintain the

official version of the conversational game. They warmly appreciated the interest being shown in their activities and worked accordingly. It was this construction of the lighting and tea-breaks and not the events themselves that produced the continuing increases in output. Evidence in social psychology must always be construed in such experiential (and not experimental) contexts if we are to understand social process more adequately. The hard repeatable data is not to be found in the behaviour of people; but in the consistent relationships between their behaviour and their constructions of experience. The repertory grid and the video-recorder may together reveal more stable insights than either can reveal alone. Given an acceptance of the personal construct psychology paradigm a coherent system of conversational technology will emerge. It will incorporate everything from Skinner boxes to client-centred therapy and ethological "live with them" methods to the interpretation of dreams. The reflexive use of the commonality, sociality, self-awareness and social awareness corollaries provides an experiential-behavioural framework from within which to understand what is going on. This insight offers a taxonomy of methodologies from which to choose methods appropriate to situations and purposes.

Complementality

Are the "social" corollaries so far proposed sufficient to provide firm theoretical framework for conversational investigations into social situations?

One of the social phenomena which has most intrigued man is the social complexity of insect communities (Ardrey, 1972). How can organisms which show no signs of consciousness or awareness organise themselves so complexly? Commonality is part of the answer. Each member of the community shares an innate construction of experience with its species neighbours. But even in the most elementary of communities it is rare for all members to behave similarly. Males differ from females. The biology influences the construing. There is differentiation of function implying that specialists are endowed with different constructions; and yet the whole community functions as if the complexity of organisation arises not from total commonality but from a "complementality" of individual constructions of experience. The ethologists have described how these mesh together to form a social system which develops characteristics (Lorenz, 1977) that transcend the sum of the characteristics of the parts. Perhaps if personal construct psychology is to properly serve the needs of social investigation a "complementality corollary" should also be added to Kelly's original system. It might be framed as follows:

> **COMPLEMENTALITY COROLLARY**
> When people share in a common pool of events including each other, but by virtue of their position sample these events differently, their constructions of experience will develop to complement each other. This complementation will produce a social system which exhibits greater complexity of stable organisation than exists in the constructions of any individual contributing to it.

Thus the complementality corollary serves to link commonality to the other social corollaries and allows the concepts of organisation and institution to be introduced into the personal construct psychology approach to social systems. The participants share constructions of experience which embody implicit rules and regulations. For certain purposes they construe co-participants as objects and not as containers of alternate (or even similar) constructions of experience.

Another requirement for a conversational methodology of investigation is thus clarified. Repertory grid techniques must be expanded to include complementality. The form of the grid must not only contain the possibility of identifying commonality between the constructions of experience, one person to another, but the sum of the grids from the members of a group should reveal system properties not contained in the grids of anyone.

Grids for Complementality

Where individuals share (at least partly) in the same events, grids can be elicited about these events. Personally elicited elements may be used as the basis for each individual grid. In theory such grids may have nothing in common, in practice they almost always overlap. Elements from all the original grids can now be contributed to a common mind-pool. Each participant is asked to do a second grid using all those elements in the mind-pool that have some meaning for him or her. Personal constructs still appear in each grid, but grids can be linked via their common elements. The PAIRS technique which was the basis of the SOCIO-GRIDS analysis can be used to map one person's constructs on to another's. Inter-grid conversation now ensues to explicate the operant and verbal overlap of each two constructions of experience. Emphasis is placed on recognising regions in which the construction of experience differs. Thus grids, even after negotiation, only partly overlap; and each pair overlaps differently. The personal constructs using all the elements and all the constructs in the mind-pool. Emphasis is given to the use of "don't know" and "not applicable" responses. Each grid is now mapped verbally and operantly onto every other grid. The resultant "system grid" can be treated as if it came from a system individual who would be seen as having a more complete construction of the experience of the total system than any individual contributing to it. A god-like observer, e.g. the ethologist, observing the insect community, can gain insight into the functioning of the social system. But more importantly in the real world of participative negotiation, the system grid and its various constituent parts can be used to raise the awareness by each individual of other individuals' constructions of experience. This technique is particularly appropriate for use in conjunction with such techniques as the socio-technical analysis of working groups pioneered by Trist. Bamforth and Rice and the examination of primitive technologies and artifacts carried out by anthropologists such as Mead (1970) and Levi-Strauss (1962). Thus the action research paradigm for social investigations pioneered in the post-war years and the sociological investigatory methods of, say, Goffman (1971), Reisman (1950) and White (1965), can be added to the separate strands from which the rich texture of a new generation of conversation methods is being woven. Mair's community of selves, and Pask's P-individuals communicating within one brain, offer the vision of the self having complementality characteristics which are more than the sum of the constructions of the internal communicants. Freud invented the unconscious to cope with this eventuality. Perhaps a more adequate conversational technology could be used reflexively as a form of psychotherapy. Seaborne-Jones (1972) offers the beginnings of such an analysis.

The Theory is the Method

This chapter has attempted to demonstrate that the paradigm of personal construct psychology provides the conceptual space within which alternate theories and different methods of investigation can be seen to supplement and complement each other. The shape of this space has been challenged. The fundamental postulate is as yet still fundamental, but the adequacy of the ten corollaries has been questioned. New ones have been suggested more in the spirit of Kelly's own method of inquiry than in any serious attempt to rewrite personal

construct psychology. Self-awareness, social awareness, endowment and complementality would seem to require explanation.

Conversational technology can provide tools for building vehicles in which many different approaches to the understanding of living organisms can travel convivially together (Illich, 1973). Personal construct psychology offers this freedom because being a contentless model of man it contains the seeds, nay the seedlings, of a fully fledged meta theory of psychological relativity. Public-content-laden theories and methods are construed as sources of nutrient in which systems for constructing personally relevant and viable meanings can feed. Each system is endowed with its own perspective and its own intentionality. Other systems are construed by it: and it construes other systems. Hence the relativity. There is no master construer, nor is there any one macro-programme containing the laws which coordinate the universe. Man invents himself and the space he occupies. Attempts to produce absolute systems of description and explanation will die away as the all-pervading media reveals the arbitrariness 'of the positions of all describers and explainers. The monolithic media will also die as its images become transparent and dissolve revealing the need for a technology that enables personal construct systems (people) to interact and to continually enrich and renew themselves.

Whilst most men believed that they lived within one or another coherent geographical, cultural and ideological position. Objective explanations were attempted and imposed upon everybody. The commonality of local construing provided the basis for unquestioning agreement about the nature of physical and social reality. Such self-supporting systems of local objectivity lean hard on the dissenter. Thus is madness manufactured. Even before the recent explosion in the means of apparent communication the conventional reality was never as unquestioned or monolithic as the belief in one objective reality might lead one to expect.

Unfortunately each questioner was, in self-preservation, driven to believe that his view contained the new, greater or more valid objectivity. Only the artist occasionally recognised that one man's personal reality was another man's prison. But then he probably distrusted his own reality to the point of madness, or drew a sharp line between the subjectivity of art and the objectivity of reality. A whole-hearted theory of psychological relativity would release a tremendous fund of creative energy. Theories and methods, Art and Science could be seen as tools for achieving shared purposes. Philosophy which is the arena within which intentionalities are clarified and non-trivial conflicts about purpose are negotiated, and conversational methodology which is the resource for building the vehicles in which personal, interpersonal and social space may be explored, become primary concerns of man. Personal construct psychology provides the meta-language in which man can explore his nature. The resolution of day-to-day affairs requires the construction of those interlocking systems of specific construing which serve the agreed common purposes of the participants. The creation of a negotiating technology frees people to negotiate. Recognition of the relativity of knowing leaves each person free to negotiate changes in the shared constructions, free to leave the group and join others with more compatible constructions or free to try to create a group by becoming the seed around which a new system of knowing can condense and grow. George Kelly was one such seed. An effective conversational technology can amplify the power of man to achieve such aspirations. George Kelly indicated the ground rules for the construction of such a methodology. Kelly is dead. Long live the spirit of Kelly.

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