

*Construing contexts: Problems and prospects of George Kelly's  
Personal Construct Psychology and its alternatives*

Geoffrey H. Blowers	Kieron P. O'Connor*
Department of Psychology	Centre de Recherche
University of Hong Kong	H"pital Louis-H. Lafontaine
Hong Kong	Montreal, Quebec

\* Address for correspondence

Portions of this paper were completed while the first author was the recipient of a *chercheur invit*, from the FRSQ (#891315) of Quebec, and was based at the Centre de Recherche, H"pital Louis-H. Lafontaine, Montreal, Quebec, with the team of Dr Kieron O'Connor.

Abstract

Kelly's concept of Man is that of a scientist formulating hypotheses about the world and revising them in the light of their predictive utility. His works contain the roots of cognitive approaches to therapy but have been challenged by recent reformulations of the concept of 'constructs'. His position is one of subjective realism which does not account for how collective knowledge of the world is possible except through his formulation of the concept of *role*. Establishing knowledge about how others construe the world is made possible in clinical situations by recourse to two Kellyan methods: the *character sketch*, and the *role construct repertory test*. The former relies on clinical observation, the latter on statistical sophistication. This divergence in methods has led to an ideological split in the following Kelly spawned, although this need not be a barrier to clinical research in this field. Although not all cognitive therapists are constructivists they share with the latter the desire to bring together inductive and deductive assessment methods and stress the centrality of the concept of self in any self-regulating therapy. However cognitive psychology's modular approach to organization is a challenge to Kelly's which conceives of everyday experience solely as an intellectual activity, and makes assumptions about the logical nature of construing. Despite this, cognitive therapeutic methods not committed to a constructivist view can be adapted from it. Its dialectical logic can be expanded; its clinical advantage is the quick access it provides to personal meaning.

*Construing contexts: Problems and prospects of George Kelly's Personal Construct Psychology and its alternatives*

*There seems tacit agreement amongst cognitive psychologists of various persuasions that the meaning of a person's thoughts are best*

understood within a personal context of relatedness. The way we think, on one occasion is related to the way we think on another, whether in the past, present or future, and by examining this context a theme might be identified which could predict the emergence of similar thoughts in the future.

One comprehensive account which grants access to idiosyncratic contexts is the Personal Construct Psychology (PCP) of George Kelly with its attendant methodology, the repertory grid (Kelly, 1955). In this he proposed a model of man as an active construer of the universe, but, unlike the models of his day which, following Freud, clung to concepts derived from a philosophy of the unconscious, or, as with Rogers, assumed a moral Man at their centre, Kelly's stressed individual development devoid of a moralizing imperative, and a cognitive capacity for enhancement and change.

Whilst a considerable number of empirical studies have sprung from it, based mainly upon the repertory grid test (see for example, Adams-Webber, 1979), Kelly's ideas have not been widely adopted by cognitive psychologists. A key reason has been that cognitive psychology is more concerned with processes of representation which he did not address. Also his constructionist philosophy is not necessarily the same as that adopted by cognitivists. Despite this the grid continues to be adopted and yields interesting clinical results (see, for example, Beail, 1985, Winter, 1992)

This paper critically reviews the central tenets of Kelly's work and those of related theories of personal context, and discusses the continuing relevance and applicability of his theory to current debates in clinical cognitive psychology.

The major tenets

*At the heart of his work lie two major axioms: constructive alternativism and man-the-scientist. The first, a neologism coined by Kelly, proposes the universe as a domain open to continual revision. His view of us is as constructivists, and it emphasizes the active, interpretive stance we take to the world. It assumes a subjective realism by which each of us interprets the world according to our construals of its possibilities. Such a view is at the heart of current cognitive approaches to faulty inference (see for example, Freeman et al, 1991) but Kelly was perhaps more systematic. His stress on interpretation for predictive possibility lead him to his second axiomatic assertion, that we act in the manner of scientists. We formulate hypotheses, test them against reality (that is, against our previous attempts to know the world) and revise them if they turn out to be false or have limited utility.*

*It will be apparent in this schema that the act of construing never delivers "reality" to us directly; we can only form progressive approximations to the world based upon our anticipations of it and testing these against consequences. We are all motivated to predict the future, says Kelly, and make plans based upon expected outcomes, but, from our individual vantage points, there may be significant differences between us in terms of our judgments. How does this arise?*

Constructs

*According to Kelly (1955) we select dimensions relevant to us to organize our impressions of other people, objects and events. This lies at the heart of the interpretive process or act of construing and leads to the formation of constructs, -- "transparent patterns*

or templates" fitted to the realities of which the world is composed.

The construct represents a consistent way for each of us to make sense of some aspect of reality in terms of similarities and differences between objects and events. It is a discrimination of things as being alike and yet different from others, and results in polarized dimensions, for example, "intelligent/stupid", "good/bad", "excitable/calm", which give order and structure to our perceptions and so provide the basis for acting in a planned and purposeful way. Each construct represents a pair of rival hypotheses either of which may be applied to a new situation which we seek to construe depending upon our attitudes and previous experience. By testing our hypotheses and seeing which best fits with our expectation of the situation, we can retain them temporarily, revise or replace them. Our experiences are thus shaped by whether or not we are able to construe replication in the hypotheses we advance.

Kelly's assertion that discriminations are dichotomous, or bipolar, is based upon his belief that all construing has this oppositional form. Thus, for example, to describe a person or object as "heavy" implies a contrast -- an understanding of its opposite (not heavy -- "lightness") necessary to being able to divide up the world into objects, people, etc., which are heavy or not heavy. Each construct therefore implies its own contrast, even if this is not always apparent.

The philosophy of the construing process remained largely unexplored in Kelly's own writings. Its philosophical legacy nonetheless has its roots in the work of Vico, Kant and Vaihinger, (Mahoney, 1988). The notion of binary opposites is the basis of dialectical thought first theorized in the philosophy of Kant, elaborated and modified by Hegel, and later, by Marx (see for example, Warren, 1984). Two contemporary intellectual benefactors of this tradition are relevant here. Levi-Strauss (1964, cited in Coward and Ellis, 1977) proposed a speculative model of the human brain as a processor of conceptual opposites which enabled him to account for the origin of dichotomous thought -- a necessary consequence of his model of cultures structured in bipolar terms. Levi-Strauss derived his model from that first proposed by De Saussure in his 1913 lectures on structural linguistics (1978). Predicated upon the idea that language comprises fundamental dyads, each made up of a signifier (sound image) and a signified (concept), the latter are potentially understood only to the extent to which each can be contrasted with others. This is because every concept qua "signified" acts as a signifier for another concept (the meaning of one thing expressed in terms of something else). By this formulation meaning is never given directly; it can only be inferred from the attempt by the listener/speaker/reader to hold it

*within a finite number of words (signifieds) of conventional spatial and/or temporal duration. From this it follows that the search for the meaning of any term can never be exhaustive, as any search through a dictionary reveals. Meaning is obtained only at the arbitrary point at which the search is discontinued; the meaning of any word is given only in terms of others, and each of their meanings in terms of others, and so on, the chain of signification being endless.*

### Concepts vs. constructs

*The idea that concepts are dichotomous has a long tradition in western philosophy of logic which stresses the bipolarity of classes, and categories. Accordingly a concept not only defines all objects which can be included within it, but by implication, all objects which prima facie are excluded. Thus the concept "p" not only entails all objects, events, people, situations, etc. designated "p", it also entails "non-p" -- a class which includes all non-p objects not entailed by p.*

*However while Kelly's term "construct" has sometimes been used synonymously with concept, it is understood in his work in two important different ways, and in these it diverges from formal logic and set theory. In one he aligns it to the word percept which implies a personal act of the mind upon the senses entailing a process of construction. In the other he speaks of it as a product of human thought which organizes itself in ways which may run counter to strictly logical thinking.*

*The implication of this can be shown in the following example. The concept "red" implies the concept "not-red". Thus an object which is not red is automatically assigned membership of the non-red class. Logically black shoes are just as much "non- red" as is a building,*

snow, or whatever. But in making discriminations we do not routinely assign to the contrast pole of a construct all objects excluded from the construct itself. "Unlike classical logic", says Kelly, "we do not lump together the contrasting and the irrelevant" (1955, p.63). Just as we have a concept "table", we can point to objects such as chairs and say these are "not a table" (the essential contrast to "table"). We would not ordinarily point to the sunset and say this is not a table. The contrast must be relevant to the construct, and between the two poles the range of convenience -- the extent to which objects are discriminated along the construct-contrast dimension -- defines the construct's utility. The contrast pole will not necessarily correspond to a dictionary defined opposite term; for different individuals there may be different contrasts and hence differing ranges of convenience. The polarisation of judgments into constructs with their often unique contrasts does not then imply the logical dichotomy we expect from the formal classification of concepts.

Distinguishing constructs from concepts and stressing the former as products arising from the continuous honing of a perspective, Kelly was not much concerned with how the mind functions in the essentialist sense. He did write about the 'organizational corollary' whereby constructs, in being welded into a framework of forms, organized themselves into a functional geography of 'periphery' and 'core,' the distinction implying the degree of probability of construct replacement. The everyday, trivial, and local form of judgment is often superseded as new circumstances arise, but a deeper level of embeddedness exists to those dimensions of our thinking which serve us more durably and in a variety of circumstances. He was more at pains to talk about how constructs are used rather than what they are.



The classical philosophical view had it that concepts were features of the world in the way that universals could be said to exist. And whereas Kelly defined concept as "a property attributable to two or more objects which are otherwise distinguished from each other" (1966, p.9) he preferred the term construct for its stress upon the act of interpretation, upon the use of concepts. As Warren points out, when one uses a concept one is not,

"simply parroting a definition or demonstrating a capacity to see resemblances...Rather that person is equally drawing attention to those objects that are not included in the concept and which may be personally more important, and is investing the concept and its 'exclusions' with a possibly unique, certainly idiosyncratic meaning" (1991, p.528).

Kelly's preference for construct over concept marks him apart from many other cognitive psychologists. However several, like him, have been concerned to draw distinctions with classical philosophy's definition of concept. Most notably there is Bartlett's 'schemata' -- organized models of ourselves (1954); Neisser's cognitive psychology with its accent on hierarchical levels of processing (1967); and Rosch's 'prototype' -- the abstracted ideal to which objects share different degrees of structural or functional similarity (Rosch, 1978). Current conceptions of schemata emphasize a network of contemporaneous memories activated by association (Bower, 1983). In all of these each has stressed the mind's organizational stance to our experience. Bartlett's 'schema', formulated when neobehaviourism was at its zenith, accounts for how groups of 'impulses' create a context for classes of specific response repertoires. Neisser's preattentive processes and focal attention deliver up 'images' for conceptual elaboration by schemata. Rosch's prototypes enable object classification and redefinition by the acknowledgement of 'fuzzy boundaries'. In Beck's model, for example, when negative events match earlier experiences on which schemata are founded these structures will be reactivated. Each of these formulations is concerned to show what we do when we ordinarily make distinctions as opposed to acting like logicians.

Their contrast with Kelly however lies in their shared implicit assumption of 'cognitivism' -- the view that the mind is made up of bits of knowledge called ideas or concepts. For this to hold a separation and a relationship must exist between knower and known. But this view can tell us nothing about what is doing the knowing. Neisser acknowledged as much when he said "the cognitive approach gives us no way to know what the subject will think next. We cannot

know this unless we have a detailed understanding of what he is trying to do and why" (Neisser, 1967, p.305 cited in Warren, 1991).

Kelly was well aware of the difficulties which this view presented which is why he rejected so much of the conventional psychology of his day that was bound by it, even the term itself: "'Cognitive' is a classical term that implies a natural cleavage between psychological processes, a cleavage that confirms everything and clarifies nothing; lets forget it." (Kelly, 1979, p. 9). His strident objection draws a contrast of cognitive processes with those of construing. The latter do not adhere to classical logical form, and are as much concerned with the conative, and affective sides of our nature as with our rationality. Desire and emotion are still assimilated with difficulty into the domains of concern of the clinical cognitive psychologist (see, Safran and Greenberg, 1991).

However, continuing research in cognitive and personal construct psychology has lead to doubts about whether concepts are organized dichotomously, (Yorke, 1983) indeed as to how they are organized (Rosch, 1978) and to whether the revealing of submerged contrast poles in so-called dichotomous construing is not a choice forced upon subjects and unrepresentative of everyday contextual thinking (Gaines and Shaw, 1981). Nevertheless the concept/construct distinction draws our attention to the need to consider the subject's wider frame of reference in making discriminations, as well as to focus on the structure -- however represented -- of the discriminations themselves.

Kelly's fundamental postulate (see table) and his eleven *corollaries* confirm the individual as a construing agent with freedom of choice, and extend our understanding of the construing process.

-----Place Table about here

-----

Constructs have a range of convenience, they become hierarchically organized, and accommodate to conflicting dimensions within the hierarchy. Individuals as construers may have a construct system similar to others. They can also construe others in a social context by playing a role -- this concept proving particularly important to Kelly's system as it is the only place within it where the social emerges as a concept of regulation of one's behaviour towards others. Without this, Kelly's Man would be an isolated individual, inhabiting a solitary world, engaged in construing solely for self-confirmatory purposes. There are implications here also for cognitively based clinical psychotherapy where a definition of the self is problematic and not integrated into clinical theory, except by default. The cognitivist, Power, has made the point that the concept of self, and how it can be strengthened, is of central importance to all forms of therapy (Power, 1989). The increasing role played in therapy by such self-referential terms as self-esteem, self-efficacy, and self-regulation, has highlighted our lack of knowledge about how this "self" is organized (Guidano, 1987). Kelly's definition of role offers a potential solution.

#### *Kelly's concept of role*

With the sociality corollary comes Kelly's idiosyncratic definition of *role*: "to the extent that a person construes the construction process of another, he may play a role in a social process involving the other person" (Kelly, 1955, p.95). Role is a "psychological process based upon the role player's construction of aspects of the construction systems of those with whom he attempts

to join in social enterprise" (p.97). The definition emphasizes the importance of the individual's outlook over that of others with whom s/he is engaged. As Kelly says, the man who is in a role relation "plays out his part in the light of his understanding of the attitudes of his associates, even though his understanding may be minimal, fragmentary, or misguided" (p.98). The definition also stresses the need for the individual to construe others construing of him or her, i.e. to anticipate others views in order to comply with their demands. Role playing by this model, is thus social, even though individually activated, because construing requires the testing of constructs against the consequences of others reactions to the construer. Yet it is not clear how agreement can be reached between us, nor how the social world, once established can claim to effect individual perceptual change.

Sociologists talk of roles as pre-existing individuals who assume them according to circumstance, in line with the general view that the social pre-exists and overarches all individual development. Social constructionists are also of this view and have theorised the interplay between the individual and the social in the development of the self in terms first advanced by Vygotsky (see, for example, Harre et al, 1985) and have contrasted these with the egocentricity of Piaget's scheme. In sum this view has it that all life is social life and, only by taking up positions in the social sphere do individuals learn their own sense of identity and individuality, both of which are intimately bound up with acquiring and understanding language (Mulhauser and Harre, 1990, Sarbin, 1986). While these theorists have not specified details of how the social function of language comes to shape individual experience they have looked appreciatively to Kelly for ways of empirically and systematically exploring the question (Harre et al, 1985).

Kelly offers a psychological model of how role gets taken up and of how it shapes the individual's perception of his or her relation to the group, taking on the assumed constructs of others by definition. This position assumes a fully fledged language user, or at least one capable of making meaningful discriminations. However the possibilities of operating according to the sociality corollary have not been elucidated to any extent and require further investigation within his framework (see in particular, Duck, 1983, pp.50-51).

## *The relevance of personal constructs to psychological evaluation*

A key factor in current clinical debates is adequately accounting for the context of meaning. If a commonality of intent underscores a continuity between otherwise diverse forms of therapy there still remains a fundamental question to be answered. Granting the importance of personal meaning to our psychological understanding, how do we access it?

The most commonly used approach is verbal self-report. However self-report scales of the form "tell me how you feel" or "what are you thinking at the moment", make various assumptions about subjectivity. Firstly, that a person possesses a conscious critical faculty capable of commenting on itself, and secondly, that a uniform process of "insight" is at work when the person completes a form.

But a report of oneself is an act, and like any act it is contextual. We may respond to questions very differently according to context, and we may differ amongst ourselves in terms of our motivation to respond. Accessing subjectivity through self-report is problematic since any answer is context specific, dependent upon comprehension, motivation and the anticipated consequence of the question. As Nesbitt and Wilson (1977) point out, people often tell more than they know, partly because self-report also demands compliance over and above "honest" insight. In terms of its style and content, a person's spontaneous self-report may be part of the person's problem rather than a commentary on it. "Talking aloud" techniques and content analysis of personal accounts are methods which attempt to capture the background stream of consciousness from which the report emerges (e.g. Oxman et al., 1988) as are analyses of everyday conversation with their implications for psychology (e.g. Potter and Edwards 1993).

In seeking self-report reliability a major problem is that it can have little consistency over occasions. Recall of data is often influenced by the respondents' beliefs in their own or desired traits, and the causes of their actions. Retrieval is related to saliency and recency effects. Memory error can result from low intelligence, "telescoping", "tunnelling", or social desirability. Error can also result from response distortion brought on by a therapist's constructs not being shared by the subject. An assessor's definition of a construct need not agree with the construer's definition (Baker and Brandon, 1990). In short, respondent characteristics, task demand variables, motivation and cognitive processes all influence self-report accuracy (Babor, Brown and Del Boca, 1990).

Mahoney (1988) has suggested that there are several levels to subjectivity, and that one must move from the level of the problem (current episodes of dysfunction) through the level of the pattern (recurrent regularities in problems) to the level of the process. This last level contains ongoing anticipatory constructions that contribute to the cognitions which perpetuate the problem pattern. The question now becomes how do we give an account of conscious experience whilst acknowledging the constructiveness inherent in verbal descriptions? Kelly's formulation of role and his elaboration of procedures for how it might be assessed, offers a potential solution.

#### *Assessment methods*

In his original work Kelly offers two alternatives either of which the clinician might use. As a clinical psychologist himself, he aimed to elaborate psychological problems as distortions of perception. To realize this he recommended using the *character sketch* in which



the client is instructed to write about him or herself in the third person as if writing about a character in a play. This ploy offers only a thin disguise of the first person account but greatly improves the client's ability to write. In this respect clinicians will appreciate its divergence from the commonly used autobiographical techniques of cognitive therapy. In effect it increases the chances of uncovering constructs which might otherwise lie dormant, and it relates dimensions of thought to specific aspects of the client's life which can be graphed fairly precisely, either for research purposes or to provide clinical insight.

Originally such self-characterizations were thought not to be amenable to systematic quantitative analyses. But recently there have been several attempts to provide these (e.g. Jackson and Bannister, 1985; Jackson, 1990; Feixas and Villegas, 1991). These are sophisticated and follow procedures enacted in the analysis of data obtained from the alternative method which Kelly proposed: the role construct repertory test.

In its initial form *elements*, the name given to the entries at the top of the columns and defined by role titles of significant people known to the client, were rated on a set of constructs occupying the rows. The resulting matrix was then assessed by rigorous yet simple statistical procedures to distil relations not only between elements, and between constructs, but between the two sets of variables as well. The constructs were elicited by a triadic sorting procedure in which the subject was presented with three elements and asked in what way are two of them alike (recording the answer as the construct) and pointing to the third and asking "how is this different?" (the answer being recorded as the contrast). The elements comprised "people I

have known" and while these are of interest to almost everybody, they will not tap all parts of a subject's construct system. Several grids would be required to do this.

The advantage of using a grid is that it discerns relationships which may not be apparent in the course of a clinician-client dialogue. For example it can show quite easily and simply whether a client is using a construct in a similar, dissimilar, or inverted way to another. It can also identify which of the elements in the client's repertoire of significant others is the most significant, that is the one which generates the largest discriminations among the constructs.

The grid forms a permanent record of an assessment at a particular moment in the life of the client which can then be read back for further dialogue and the possibility of effecting change. It can also be used to identify any idiosyncratic construing by determining the strength of relationship between any one construct and others using correlational analysis (Fransella and Bannister, 1977). With supplementary techniques such as laddering (Hinkle 1965), it is possible to establish hierarchical relations between constructs as predicted by the organizational corollary. Used in these ways the test is an instrument, highly sensitive to the individual's account of his relations with others. Its function is primarily exploratory, rather than as a test of formal hypotheses. As Slater says, "instead of excluding variation as far as possible from all sources except postulated ones, it extends the scope of the appearance of unexpected phenomena in all directions" (1977, p.25). Given its emphasis upon the individual and the personal, it helps to have a "self" element, and often different self elements such as "myself as I am" and "myself as I would like to be".

As a general procedure the grid did not originate with Kelly. It had precedents in the work of two other psychologists who were his contemporaries: Stephenson's Q-sort technique and Osgood's semantic differential (Osgood, Suci & Tannenbaum, 1971, Stephenson, 1953). The purposes for which these tests were developed were to give highly psychometrical perspectives of perception, and to absorb the individual "account" into that of the group. Stephenson's work, according to Slater (1977), was developed to test the stability of character traits across a range of assessment instruments and/or testing contexts using subjects as dependent variables; Osgood's to tap fundamental dimensions of thought on large and small populations. Both methods rely heavily upon sophisticated statistical tests such as factor analysis and both invariably work with bipolar adjectives and single statements none of which are usually elicited from the subject; rather they are supplied, ready made -- construals of the experimenter for further construing by the subject.

In spite of their differences these approaches have sufficient in common to enable a common grid technique to be discerned, not tied to a specific theory (Chetwynd, 1970) although it would be wrong to imply from this that grids are not bound by any theory, since the choice of technique, the inclusion or exclusion of certain elements, constructs, scales or statements is guided by some theoretical assumptions even if these are not always apparent to the researcher. Repertory grids best exemplify the fundamental postulate and the construction corollary ("a person anticipates events by construing their replications") but, as Bell (1988) has shown, the traditional methods of analyzing them do not reveal much about the organizational corollary ("each person characteristically evolves for his or her

convenience in anticipating events, a construction system embracing ordinal relationships between constructs"). This requires methods which are still in the process of being developed.

Data from grids in the form of a matrix of  $n$  rows and  $m$  columns can be subjected to any one of a number of methods such as factor analysis or cluster analysis, but the most widespread method is a principal components analysis developed by Slater as a computer program specifically for grids, termed INGRID (1972). Non-parametric factoring methods have also been employed particularly for grouping construct subsystems. This can be done by hand and involves totaling agreement and disagreements between constructs about a particular element (Coshall, 1991). These methods avoid the statistical problems of parametric factoring.

There has been considerable debate and examination of these methods (see for example Bell, 1988; Fransella and Bannister, 1977; Rathod, 1981; Slater, 1977) with two broad views emerging. One is that overly sophisticated analyses of grids mask the psychological richness that lies within them, and shift the focus of attention from the individual from whom the original constructs were elicited to a consensus or group of which the individual is a member. At the same time these analyses are often the result of abstractions from data for which there is no immediate link to Kellyan theory. The contrasting view has it that grids have a life of their own and need not be constrained by Kellyan theory to mine hidden psychological ore which may lie in the manifest data of the completed grid. This split runs through the following that Kelly has inspired and is most visible in the works of Bannister and Slater who, judging by their mid seventies texts, would appear to sit in opposing camps. Bannister, the clinician,

favoured simple grid methods which facilitated clinical analysis in the immediate context of the clinical interview. Slater, a sophisticated psychometrician, was keen to extend the limits of grid analysis to what could be uncovered. There is value in both approaches and the purpose for which any enquiry is being conducted should be the ultimate determinant of the methods and viewpoints proposed.

A similar tension runs through questions as to the grid's reliability and validity. As the grid is particularly sensitive to change, how stable is it as a measuring device? Since reliability, from a Kellyan perspective, is a measure of the stability of construing, it has been demonstrated that the grid is a highly reliable instrument -- subjects giving the same construals of the same events when tested on two occasions separated by a short time interval (see Bannister and Mair, 1968 for a full account). However, testing over long intervals, or giving subjects an opportunity to revise their construing using different elements, reveals that some constructs are more subject to change, others less so (those cohering around the core). This is exactly in keeping with what Kellyan theory would predict even if the outcome leads to a lowering of conventional indices of reliability. From this perspective, a highly reliable instrument would be one insensitive to change. While this might not satisfy the conventional objection that we have not demonstrated whether the change in the construct system is systematic, intentional, or random, a further test, suggested Bannister and Mair (1968), can be carried out, of correlating the constructs with each other on the two occasions. If the change is systematic or intentional the correlations among constructs should remain unchanged i.e. the construct *system* remains stable, even if individual constructs change.

With validity, we see the obverse of the reliability coin. Validation, from a Kellyan vantage point is the verification of a prediction or a construal. In order to make a new prediction one must advance a fresh hypothesis by implementing a new construct or revising an old one, thus temporarily risking the instrument's (and the individual's) reliability. Validity would be confirmed by matching

the revised construct to the subject's subsequent perception and behaviour, or by seeing whether the therapist's interpretation of a client's constructs squared with the client's own assessment of the situation.

### *Practical consequences of grids*

While Personal construct theory guides the clinician's probing of the client's discourse at the moment of its generation, the repertory grid provides an account of significant features of this universe, a posteriori. This divergence between the spontaneous account and the need to quantify it places some limits on the descriptions offered by the client but this should not be seen as unnecessarily restrictive. Even in open conversation, sentences express a speaker's ideas often in shorthand form. Several points can be condensed within a single phrase which can seem obscure; alternatively an excess of words may carry only a single idea. The art of the clinician (as with any listener) is to tease out the ideas the client (speaker) expresses in terms of singular dimensions of construct-contrast form so as to confirm the client's meaning by feeding back this understanding to the client and obtaining clarification by confirmation or amendment. In this the grid resembles other humanist oriented methods which seek to discover the structure of a client's viewpoint. For example, in Rice and Greenberg's (1984) process paradigm one looks intensively at a series of examples of a particular episode and tries to isolate the essential patterns that form its structure; in Giorgi's (1985) phenomenological method verbal narratives are categorized into units of meaning which are verified by the client so that an individualized context may be uncovered in which to interpret the significance of

isolated statements. Kelly's individuality corollary is a reminder that one should not treat too lightly the words of another, nor assume that just because two people speak a "common language" their shared words mean the same things for each of them.

A grid requires dimensions of thought be treated separately. Thus a speaker who says "I like the weather when its cold and wet" is expressing at least two ideas about the environment in "coldness" and "wetness" which need to be isolated if their meanings, in the context of the speaker's milieu, are to be made clear, i.e. what contrasts is the speaker drawing by his or her use of "cold" and "wet". The answers reveal how terms are being used, and what is implicitly important to the speaker.

Grids can function as exploratory tools or as aids to therapy, and can be combined with psychotherapy and with behavioural rehabilitation programs. The choice of elements is dictated by the nature of the problem. For example if its an interpersonal one then the elements should be people; if situational, environments -- work, home, rehabilitation, etc. -- should be the focus.



Any use of the grid raises the important question of whether constructs should be elicited or supplied. Supplying them means providing a label upon which a client will place his or her own understanding. Often constructs are supplied, as they are in virtually all forms of psychological assessment using scales and questionnaires, the researcher's nomothetic impulse for inter-subjective comparisons holding sway over the clinician's desire for a deeper understanding of the individual subject. But how does this move tally with Kelly's injunction that we are each an idiosyncratic construer and therefore should respect others preferred use of words? The practical solution is to ensure that the supplied constructs come from a pool of terms used by representative members of the group from which the client is drawn. If this is not possible, or if, as is the usual case, the clinician wishes to know what the client thinks of particular events or people, without prompting i.e. putting words in his or her mouth, then eliciting is the preferred method.

The range and utility of elicited constructs depends to some extent upon clients being articulate, and for those who lack confidence in self-expression, the importance of good rapport cannot be overstressed. By paraphrasing what the client says (i.e. expressing in his or her own constructs what the construer has provided) the clinician creates an opportunity for clarification, qualification, and amendment in a mutually orienting mode of data gathering (Viney, 1988). There are pitfalls with this technique however which should be avoided. The clinician must ensure that the client understands the meaning of the elements and, if supplied, the constructs. From the beginning construing too concretely, where emphasis is placed on physical characteristics, should be discouraged. Similarly, circular or vague

constructs will limit the understanding of both parties when these are examined after later analysis. The grid obviously works better with clients who are articulate, but if a client suffers from a speech defect potential problems can be circumvented by using communication boards, and conducting the interview over several sessions if he or she tends to tire quickly. Sometimes in sorting elements a client may not be able to say why things are similar or different. Here a form of preverbal construing is taking place in which the subject intuitively draws a distinction but cannot say why two or more things are different. However the struggle to find the words at the time of the discrimination can be circumvented by having the subject note the separation of elements and describe it later. Clearly the best results will be obtained by a clinician sensitive to personal encounters who will be equally adept at drawing out the reticent client and curbing the voluble one. In all cases what counts most for the repertory grid as a preferred clinical instrument is its sensitivity to change.

As a tool in psychotherapy the grid enables a person to articulate his or her construct system to a greater degree, and thereby subject it to more crucial and clear-cut tests, so that its validity, as a monitoring device for life experiences, can be assessed, by both client and psychotherapist (Bannister and Mair, 1968). The discrepancy between the person's report (on face inspection) of his or her/her construct relationships and the statistical relationships which manifest themselves when s/he uses the constructs in a grid format, could be looked on as an index of how well acquainted s/he is with the network of implications which constitute this construct system.

The clinician however should be aware of potential problems with

grids. They are time consuming, the average grid interview with elicitation of constructs and rating of elements takes at least an hour, often two. One needs patience particularly with less articulate clients. One also needs a basic conceptual understanding of statistics to interpret the data emerging from the ready-made efficient grid data analysis packages. For example, with principal components analysis on INGRID the first component is thought to relate to the way the subject fundamentally understands (perceives) the world. How s/he does is given by constructs which load on this component. The number of constructs which do this and uncovering what they have in common requires skillful interpretation -- there are no hard and fast rules (see for example, chapter 9 of Slater, 1977 vol. 2). In effect it requires a further construal by the clinician of the clients' constructs. Whether the clinician is "right" in his or her estimations can only be verified by going back to the clients with the grid results and offering an analytic interpretation of them.

If grids are to be clinically relevant their content form an integral part of the therapeutic process itself. This point, made by Kelly and echoed by Phillips (1989) cannot be overstressed. Relying on technical measures of the grid is not a sure way of understanding the characteristics of construing, since the same grid organization can be interpreted differently at different times.

#### *The broader constructivist clinical picture*

While traditionally, psychodynamic and behavioral therapies have diverged in the importance they accord to the realm of personal experience, the growing convergence between cognitive and behavioral therapies has put the evaluation of personal meaning back onto the

clinical agenda. According to Mahoney and Lyddon (1988) there are now at least 20 distinguishable cognitive therapies whose outlook is constructivist -- the view that individuals actively construe and create their personal realities and each has a representational model of the world through which it is filtered (Mahoney, 1988). In practice constructivism takes various forms, but two examples will serve to demonstrate its diversity. Bandura's notion of self-efficacy adopts an agency model of experience based on social learning (1982). A person's perception of a situation is reciprocally determined by task demands and by their confidence in coping. Confidence is often a better predictor of coping ability than apparently objective indicators (such as the strategy adopted). At the other end of the continuum are the motor theorists (e.g. Weimer, 1978) who view all sensory events as a product of subtle motor functions gating and creating perceptual events.

Personal meaning has also been brought to the fore by the convergence of phenomenological with deductive methods used in psychotherapy. Frank (1987), has underlined the important role of subjectivity by stating that all psychotherapies depend on the fact that thinking, feeling, and behaviour are guided largely by a person's assumptions about reality rather than by any objective properties.

In clinical outcome studies dissatisfaction with a lack of concern for qualitative differences among clients, and hence the identification of crucial personal variables in therapy, has led to an increased concern to explore layers of subjectivity. Werbart (1989) for example, in a review of the conflict between process and outcome, notes the eventual role that qualitative variables such as clients' perception of change and their interpretation of the therapeutic relation -- variables inaccessible to quantitative methods -- must play in clinical decision making. Smail (1972) shares the same concern about the role of crucial processes such as empathy. Shoham-Salomon (1990) has explored the notion that therapeutic processes do not have fixed meanings, and that the personal context of meaning is essential to understanding the relation between process and outcome. Like a number of clinical authors, he writes that exploring subjectivity must be the initial guide to treatment, the aims of which can then be formalized in deductive terms (e.g. Altman, 1988). As with other cognitive therapies there are strains between the creative inductive and deductive parts of Kelly's theory, there is a tendency to overrationalize and inhibit the client's process of discovery. On the one hand the client creatively construes the world in idiosyncratic and not necessarily logical ways, on the other Kelly assumes this construing conforms to a statistical logic and is verified by man

the scientist.

However alternative philosophies have accounted for context in ways other than by Kellyan constructivism. Most notable would be 'contextual behaviourism' (Hayes and Hayes, 1988) which attacks the literal meaning of the client's speech and aims to place it in a wider behavioural context. On the other hand a radical relativist position such as phenomenology would challenge any notion of an entity such as an element. It would first attempt to categorize constructs by claiming that any apparently objective description of an event or person was already a construction, thereby challenging the Kellyan notion of a division between elements and constructs in the traditional grid.

In fact Kuiken et al (1989) have applied a dichotomous logic similar to Kelly's to analyze phenomenological descriptions. Each of these may be represented by an array of dichotomous variables, each variable indicating presence or absence of one type of statement. The degree of similarity between any two phenomenal descriptions in the set can then be assessed by cluster analytic algorithms. This approach to discovering context also represents an expanded logic to that of Kelly's since essential properties of experience can be revealed by considering phenomenal statements not as bipolar dimensions but as members of a polythetic class. The dichotomous logic can be expanded to give a more sophisticated and less constraining set-theoretic approach to discovering meaning, based, for example, on possibilistic logic with forms other than bimodal distributions and groupings to reveal context (O'Connor, 1992).

Other non-constructivist uses of Kelly include systems theorists such as Katakis (1990), who argues that if self-regulation is seen

as the instrument of therapeutic change then a self-referential system must form part of it. Such a system would be defined by a hierarchically-ordered constellation of inner representations composed of dynamic structures or emotion and cognition which relate a given living system to its environment. Self referentiality would operate at the highest level in the conceptual system as it enables evaluation of incoming information and organizes our experience and decision making. Katakis himself invokes the Kellyan idea of personal constructs as a means of exploring this self-referential system.

Another systems theorist, Von Forster (1984), envisages constructivism as a kind of cognitive homeostasis in which the nervous system is organized to compute a stable reality. This self-defined or self-contained reality is then responsible for regulation and transformation of the self which must be accessed without stepping beyond the personal system itself.

The modern accent on individually generated reality as the prime focus for understanding and change echoes that of an earlier, highly influential school -- psychoanalysis -- and several writers reviewing recent constructivist trends in that literature have concluded that exploring the experience of the self in construct terms is compatible with understanding the stability and functioning of the ego (Soldz, 1988; Warren, 1989). Warren (1989), for example, sees personal construct psychology as the attempt "to provide a grasp of, and insist on a centering of this meaning-giving nature of the human person, whether that meaning is in terms of normal language metaphor or myth, whether it is concrete or abstract, literal or symbolic. This is also the focus of psychoanalysis" (p.461).

### *Concluding remarks*

Kelly remains a controversial figure on several key conceptual issues, notably that our experience is borne solely of a process of construing in a manner reminiscent of scientific hypothesis testing and that it results in dichotomous categories of thought. His elaboration of the role construct repertory grid test provides an instrument for the systematic exploration of construct relationships -- to each other, and to the world to which they apply. Although there are practical problems in administering grids, which the clinician should be aware of, these are not insurmountable. Kelly's basic thesis that we create our own worlds resonates with the broader pattern of constructivist thought from which have emerged a variety of cognitive methods with clinical applications. Nevertheless the grid is probably the most systematic of the assessment methods developed from within this sphere. It is also quite adaptable to other contextual approaches outside of constructivism, and has played a key role in establishing that personal meaning cannot be understood outside of a context. Its assumptions about the logic of construing are shaky and may be superseded by less presumptive and more set-theoretic notions of grouping experience. In the meantime Kelly's personal construct psychology will continue to have clinical utility for the foreseeable future, and provides a challenge to those other cognitively based therapies which are grounded in mediational assumptions of naive realism.



## References

- Adams-Webber, J. (1979) *Personal Construct Theory: Concepts and Applications*. New York: Wiley.
- Altman, I. (1988) Process, transactional/contextual and outcome research. *Social Behaviour*, 3, 259-280.
- Babor, T.F., Brown, J., Del Boca, F.K. (1990) Validity of self reports in applied research on addictive behaviors fact of fiction. *Behavioral Assessment*, 12, 5-31.
- Bandura, A. (1982) Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-148.
- Baker, T.B. and Brandon, T.M. (1990) Validity of self-reports in basic research. *Behavioral Assessment*, 12, 33-51.
- Bannister, D. and Mair, J.M.M. (1968) *The evaluation of personal constructs*. London: Academic Press.
- Bartlett, F.C. (1954) *Remembering: a study in experimental and social psychology*. Cambridge: Cambridge University Press (originally published 1932).
- Beail, N. (1985) (ed.) *Repertory grid technique and personal constructs*. London: Croon-Helm.
- Bell, R.C. (1988) Theory appropriate analysis of repertory grid data. *International Journal of Personal Construct Psychology*, 1, 101-118.
- Bower, G.H. (1983) Affect and cognition. In D.E. Broadbent (ed.) *Functional aspects of human memory* London: The Royal Society.
- Chetwynd, S.J. (1970) *Generalised Grid Technique*. Unpublished manuscript. Department of Psychiatry, St George's Hospital, London.
- Coshall, J.T. (1991) An appropriate method for eliciting construct subsystems from repertory grids. *The Psychologist*, 14(8), 354-356.
- Coward, R. and Ellis, J. (1977) *Language and Materialism: Developments in Semiology and the Theory of the Subject*. London: Routledge & Kegan Paul. pp. 20-21.
- De Saussure, F. (1978) *A Course in Structural Linguistics*. Glasgow: Fontana.

Duck, S. (1983) Sociality and cognition in personal construct psychology. In: J.A. Adams-Webber and J.C. Mancuso (eds) *Applications of Personal Construct Psychology*. New York: Academic Press.

Edwards, D. and Potter, J. (1992) *Discursive psychology* London: Sage.

Feixas, G. and Villegas, M. (1991) Personal construct analyses of autobiographical texts: A method presentation and case illustration. *International Journal of Personal Construct Psychology*, 4, 51-83.

Frank, J.D. (1987) Psychotherapy, rhetoric and hermeneutics. Implications for practice and research. *Psychotherapy*, 24(3), 293-302.

Fransella, F. and Bannister, D. (1977) *A Manual of Repertory Grid Technique*. London: Academic Press.

Freeman, A., Pretzer, J., Fleming, B., and Simon, K. (eds.) (1991) *Clinical applications of cognitive therapy* New York & London: Plenum.

Gaines, B.R. and Shaw, M.L.G. (1981) New directions in the analysis and interactive elicitation of personal construct systems. In M.L.G. Shaw (Ed.) *recent advances in personal construct technology* London: Academic Press.

Giorgi, A. (ed.) (1985) *Phenomenology and psychological research* Pittsburgh: Dusquesne University Press.

Guidano, V.F. (1987). *Complexity of the Self: A Developmental Approach to Psychopathology and Therapy*. New York: Guildford.

Harre, R. Clarke, and D. de Carlo, N. (1985) *Motives and mechanisms* London: Methuen.

Hayes, S.C. and Hayes, L.J. (1992) Some clinical implications of contextual behaviorism: the examples: the example of cognition. *Behavior Therapy* 23 225-249

Hinkle, D.N. (1965) *The Change of Personal Constructs from the Viewpoint of a Theory of Implications*. Unpublished doctoral dissertation, Ohio State University.

Jackson, S.R. and Bannister, D. (1985) Growing into self. In: D. Bannister (ed) *Issues and Approaches in Personal Construct Psychology*.

Jackson, S. (1990) A self characterisation: Development and deviance in adolescent construing. In: P. Maitland (ed), *Personal Construct Theory, Deviancy, and Social Work*. London: Inner London Probation Service/Centre for Personal Construct Psychology.

Katakis, C. (1990) The self-referential conceptual system: toward an operational definition of subjectivity. *Systems Research* 7(2), 91-102.

Kelly, G.A. (1955) *The Psychology of Personal Constructs*, 2 volumes. New York: Norton.

Kelly, G.A. (1979) The psychotherapeutic relationship. In: B. Maher (ed) *Clinical Psychology and Personality* (pp.216-223). New York: R.E. Krieger.

Kelly, G. A. (1979) Ontological acceleration. In: B. Maher (ed) *Clinical Psychology and Personality* (pp.216-223). New York: R.E. Krieger.

Kuiken, D., Schopflocher, D. and Wild, T.C. (1989) Numerically aided methods in phenomenology: a demonstration. *Journal of Mind and Behaviour* 10 (4) 373-392

Levi-Strauss, C. (1964) *Mythologiques*, Vol. 1: "Le Cru et le Cuit". Paris: Plon.

Mahoney, M.J. (1988) Constructive metatheory: 1. Basic features and historical foundations. *International Journal of Personal Construct Psychology*, 1, 1-35.

Mahoney, M.J. and Lyddon, W.J. (1988) Recent developments in cognitive approaches to counselling and psychotherapy. *The Counselling Psychologist*, 16(2), 190-234.

Mulhauser, P. and Harre, R. (1990) *Pronouns and people: the linguistic construction of social and personal identity*. Oxford: Blackwell.

Neisser, U. (1967) *Cognitive psychology* New York: Appleton-Century Crofts.

Nesbitt, R.F. and Wilson, T.D. (1977) Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 83, 231-259.

O'Connor, K.P (1992) Design and analysis in individual difference research. In A. Gale and M.W. Eysenck (eds.) *Handbook of Individual differences: biological perspectives* Chichester: Wiley.

- Osgood, C.E., Suci, G.J. and Tannenbaum, P.M. (1971) *The measurement of meaning*. Urbana: University of Illinois Press.
- Oxman, T.E., Rosenberg, S.D., Schnurr, P.P., Tucker, G.J. and Gala, G. (1988) The language of altered states. *Journal of Nervous and Mental Disease* 176(7), 401-408.
- Phillips, E. (1989) Use and abuse of the repertory grid. A PCP approach. *The Psychologist*, 12(5), 194-198.
- Power, M. (1989) Cognitive therapy: an outline of theory practice and problems. *British Journal of Psychotherapy*, 5, 544-556.
- Rathod, P. (1981) Methods for the analysis of rep grid data. In: H. Bonarius, R. Holland and S. Rosenberg (eds), *Personal Construct Psychology: Recent Advances in Theory and Practice*. Chichester: Wiley.
- Rice, L.N. and Greenberg, L.S. (1984) *Patterns of change: intensive analysis of the psychotherapy process* New York & London: Guildford.
- Rosch, E. (1978) ...In Rosch, E. and Lloyd, B. (eds.) *Cognition and categorization* Hillsdale, New Jersey: Erlbaum.
- Safran, J.P. and Greenberg, L.S. (1991) *Emotion, psychotherapy and change*. New York & London: Guildford.
- Sarbin, T. (1986) Emotion and act: roles and rhetoric. In R. Harre (ed.) *The social construction of emotions* Oxford: Blackwell.
- Shoham-Salomon, V. (1990) Interrelating research processes of process research. *Journal of Consulting and Clinical Psychology*, 58(3), 295-303.
- Slater, P. (1972) Notes on INGRID 72: a programme available for analyzing grids individually. *Unpublished manuscript*. St. George's Hospital, London.
- Slater, P. (1977) *The Measurement of Interpersonal Space by Grid Technique*, vol. 2. Chichester: Wiley.
- Smail, D.J. (1972) A grid measure of empathy in a therapeutic group. *British Journal of Medical Psychology*, 45, 165-169.
- Soldz, S. (1988) Constructivist tendencies in recent psychoanalysis. *International Journal of Personal Construct Psychology*, 1, 329- 347.
- Stephensen, W. (1953) *The Study of Behaviour: Q Technique and its Methodology*. Chicago: Chicago University Press.
- Viney, L. (1988) Which data-collection methods are appropriate for a constructivist psychology? *International Journal of*

*Personal Construct Psychology* 1, 191-203.

Von Forster, H. (1984) *Observing systems*. CA: Intersystems, Seaside.

Warren, S. (1984) *Emergence of Dialectical thought: Philosophy and Political Enquiry*. Chicago: University of Chicago Press.

Warren, B. (1990) Psychoanalysis and personal construction. *Journal of Psychology*, 124(4), 449-463.

Warren, B. (1991) Concepts, constructs, cognitive psychology and personal construct theory. *The Journal of Psychology* 125 525-536.

Weimer W.B. (1978). A motor theory of mind. In: R. Shaw and J. Bransford (eds). *Perceiving, Acting and Knowing: Towards an Ecological Psychology* (pg.270-308). Hillsdale (NJ): Erlbaum.

Werbart, A. (1989) Psychotherapy research between process and effect: the need of new methodological approaches. *Acta Psychiatrica Scandinavia*, 79, 511-522.

Winter, D.A. (1992) *Personal construct psychology in clinical practice: theory, research and applications*. London: Routledge.

Yorke, D.M. (1983) Straight or bent? An inquiry into ratings scales in repertory grids. *British Educational Research Journal* 9, 2, 141-151.

## Table

### Kelly's Fundamental Postulate and its Corollaries

*Fundamental postulate:* A person's processes are psychologically channelised by the ways in which s/he anticipates events.

*Construction corollary:* A person anticipates events by construing their replications.

*Individuality corollary:* Persons differ from each other in their constructions of events.

*Organization corollary:* Each person characteristically evolves for his or her convenience in anticipating events, a construction system embracing ordinal relationships between constructs.

*Dichotomy corollary:* A person's construct system is composed of a finite number of dichotomous constructs.

*Choice corollary:* A person chooses for him or herself that alternative in a dichotomized construct through which he anticipates the greater possibility for extension and definition of his system.

*Range corollary:* A construct is convenient for the anticipation of a finite range of events only.

*Experience corollary:* A person's construction system varies as s/he successively construes the replications of events.

*Modulation corollary:* The variation in a person's construction system is limited by the permeability of the constructs within whose ranges of convenience the variants lie.

*Fragmentation corollary:* A person may successively employ a variety of construction systems which are inferentially incompatible with each other.

*Commonality corollary:* To the extent that one person employs a construction of experience which is similar to that employed by another, his psychological processes are similar to those of another person.

*Sociality corollary:* To the extent that one person construes the construction processes of another, s/he may play a role in a social process involving the other person.