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10 *The structure and meaningfulness of tacit construing*

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'A person is not necessarily articulate about the constructions he places upon his world. Some of his constructions are not symbolized by words; he can express them only in pantomime. Even the elements which are construed may have no verbal handles by which they can be manipulated and the person finds himself responding to them with speechless impulse. Thus, in studying the psychology of man-the-philosopher, we must take into account his subverbal patterns of representation and construction.' (Kelly, 1955, page 16)

Introduction

Throughout the presentation of his psychology, Kelly was careful to avoid conveying the impression that constructs were essentially explicit 'cognitive' affairs. Rather, they might be regarded more appropriately as *lived discriminations* channelising an individual's actions and perceptions, which may or may not be represented adequately in symbolic speech. Recognising that 'there are grounds for distinction that operate in one's life that seem to elude verbal expression' (1970, page 15), Kelly devoted considerable theoretical attention to 'nonverbal', 'nonlanguage' and 'preverbal' aspects of construct systems. Of these, Kelly gave greatest emphasis to 'preverbal constructs', which were 'originally designed to construe those elements of which an infant could be aware' (1955, page 461). He did allow, however, that such constructions may be developed after the individual has command of words; in fact, as in the case of the 'person who places great store upon spontaneity', non-verbal constructs may be elaborated to the point where they form a 'complicated unverbalized system' even in the linguistically sophisticated adult (1955, page 463).

Although 'preverbal' understandings carry the connotation of being developmentally less mature than their 'nonlanguage' counterparts in the adult, in practice Kelly tended to use the terms interchangeably. This blurring of terminology is unfortunate, since it could obscure important theoretical differences that may exist between infantile constructs that antedate the acquisition of language and more mature equivalence–difference patterns which lack verbal symbolisation. For this reason, I prefer to reserve the rubric 'preverbal' for *developmentally* prelinguistic constructs, and have coined the blanket term 'tacit construing' (Neimeyer, 1977, page 351) to describe all those constructs which are not verbally articulated, regardless of their point of emergence in the individual's life span. They may or may not be symbolised in a non-language modality.

If tacit construing could be relegated to a peripheral status within the construct

system, then perhaps it would warrant the empirical neglect that several investigators (e.g. Bannister and Mair, 1968; Landfield, 1977; Neimeyer, 1977) have noted surrounds the topic. Far from being trivial, however, 'nonverbal and preverbal bases of discrimination and organization . . . may occupy important and even central places in the economy of a person's orientation towards himself and the world' (Bannister and Mair, 1968, page 29). The centrality of tacit construing similarly was acknowledged by Kelly, who noted that 'the superordinate permeable features of the system may not be verbalized' (1955, page 88). While they may lack the communicability of more explicit verbal dimensions, these unspoken higher-order implications 'yet may be points of reference for whole areas of construing' (Bannister, 1970, page 57).

The dearth of studies relating to unverbalised constructions is all the more surprising, given the acknowledged clinical significance of the tacit realm. Kelly conjectured that such inarticulate construing was implicated in impulsivity (1955, page 343) and dependency (1969, page 199), often primary concerns in the psychotherapeutic context. In fact, because the client's reliance upon non-verbal semiotic systems is often so perplexing for the therapist, Kelly carefully outlined the clinical 'signs' pointing to the operation of such construction (1955, page 465). Once it is ascertained that the client is dealing in non-language constructs, the therapist might assist him or her in devising word labels for the more elusive tacit discriminations, in order to facilitate later therapeutic experimentation and reconstruction (Kelly, 1955, pages 464–465; Neimeyer, in press). Alternatively, the therapist and client might choose to elucidate and revise such constructs in their unverbalised form, perhaps through the medium of artistic activity (Kelly, 1955, pages 1001–1002).

Despite the clinical relevance of non-linguistic construing, the complexity of the phenomenon in the therapeutic context could frustrate the efforts of the systematic investigator. Perhaps for this reason, pioneering attempts to map out the tacit domain have taken place in experimental settings that allow for greater control. Riedel (1970), for example, devised a non-verbal 'Personal Construct Inventory' for the assessment of implicit core role structure governing the self's relation to significant others. The instrument itself consists of a square matrix containing nine cells, in which the respondent is asked to place circles representing himself or herself paired with such figures as 'mother', 'spouse', 'ideal self' and 'the world'. By examining the relative size of the circles employed, the distance between circle pairs and their positioning in the matrix, Riedel sought to gauge the way that respondents fixed their own relative position in the interpersonal realm. In a pair of related experiments he examined the construing of male sixth-graders and psychotics in comparison with twelfth-graders and non-psychiatric medical patients, respectively. He concluded that the former two groups, in contrast to the latter, displayed a greater preoccupation with power relations and a changing sense of self in various social roles, thereby supporting his theoretically based predictions.

Van Harten (reported in Bonarius, 1971) approached the study of non-verbal construing from a somewhat different methodological perspective. Using the Rorschach and a parallel set of ink-blot cards, he asked each of his male and female student respondents to select two cards from one of the sets, which, in his or her opinion, formed a contrast. The procedure was repeated with the remaining cards in the deck until five such contrasts were formulated; from these each student was asked to select the one that she or he regarded as 'most expressive'. The cards in

this contrast, and those in a similar one formulated from the same card set by another student, then were used to anchor two 7-point rating scales. Finally, the respondent was instructed to place each of the ten cards from the remaining ink-blot set on each of the two scales. As predicted, ratings were more extreme on the dimension selected as personally relevant by the student than on that scale constructed by the partner. This finding lent support to the 'meaningfulness' interpretation of extreme scalar ratings (Landfield, 1967; Bonarius, 1971, 1977): when other factors are held constant, persons tend to rate elements more extremely when the constructs of which the scales are constructed are more personally meaningful. This holds whether the constructs involved are represented by verbal or non-verbal symbols.

G. Neimeyer (Reference Note 1) followed a similar format in comparing the relative meaningfulness of linguistic and tacit constructions. In order to elicit verbal constructs, he presented student respondents of both sexes with triads of cards, each of which carried a single-sentence statement outlining an interaction between persons. Respondents were requested to verbalise a way in which two of the situations were similar to each other and different from the third. New triads were administered until the student had articulated five such contrasts. Tacit discriminations were elicited similarly, except that the elements were black-and-white photographs of interpersonal situations, rather than written descriptions. In construing these elements, the respondent was instructed *not* to formulate the basis of discrimination verbally for the experimenter; instead, the photographs themselves were used to represent the underlying construct. Following this elicitation phase, the students were asked to rate ten role figures (for example, 'mother', 'spouse', 'happy person') on 21-point Likert scales anchored by the five verbal and five non-verbal dimensions. Ratings were found to be similarly extreme on the two sets of dimensions, suggesting their equivalent meaningfulness.

It is clear that these preliminary explorations offer some intriguing leads as to how inarticulate constructs can be symbolised and researched. What is equally clear, however, is the paucity of such investigations in the light of hundreds of extant studies of linguistic construing. One reason for this lopsidedness of research interest is suggested in a statement by Landfield (1977, page 134):

> 'Although most research on the personal construct has focused on verbal formulations, Kelly succinctly stated that "construing is not to be confounded with verbal formulation" (1955, p. 51). Nevertheless, he constructed the Repertory (Rep) Test for the highly verbal investigator and his equally verbal subjects. However, Kelly did not intend that the constructs elicited by this instrument would be treated as the equivalent of all constructs within the system.'

From this perspective, it seems unsound to assume *a priori* that the verbalised constructs evoked by a given rep test are representative of tacit sub-systems employed by that same individual. This caveat is given further weight by Epting, who cautions that 'structural differences between specific systems of constructs seem extremely likely' (1972, page 123). What seems called for is the development of a flexible technique that would facilitate the symbolisation of tacit construction, and allow for the assessment of distinctive structural relationships that may inhere in this realm of unspoken discriminations. The tacit construing technique (TCT) represents a step in this direction.

The Tacit Construing Technique (TCT)

In essence, the TCT comprises a heterogeneous set of materials by means of which an individual can represent non-verbally his or her constructs. In order to grant maximal latitude to such symbolic expressions, it includes the following media. *Picture* cards consist of photographs and drawings in both black-and-white and colour. These 38 cards depict persons, alone or in groups, in a variety of interactions. *Geometric design* cards carry 21 different geometric figures, varying in line quality, singly or in juxtaposition to one another. *Colour design* cards include 18 colourful patterns of differing shapes and intensities. *Texture* cards consist of 28 assorted materials (e.g. sandpaper, cloth, plastics) which offer a wide range of tactile properties. In addition to these provided materials (mounted on 3 x 5 inch cards to promote easy sorting) the TCT includes *modelling clay*, as well as *pencils*, *crayons* and additional blank cards. These give the creative respondent the possibility of utilising unique construct designations not contained in the standard media.

The following exploratory study was conducted in order to test the feasibility of using such materials to elicit extralinguistic construction in a Repertory Test (rep test) format. Additionally, the investigation was designed to elucidate potential structural differences between tacit constructs and their verbally symbolised counterparts.

Method

Participants

Twenty-seven college student volunteers (14 males, 13 females) ranging in age from 18 to 31 took part in the study. All volunteers received psychology class credit for their participation.

Instruments

Respondents completed a modified version of Kelly's (1955) rep test (Landfield, 1977, pages 146ff) in which ten role figures are placed on 13-point scales anchored by ten personal constructs. This format was employed for both the verbal rep test and the TCT (see below) to allow for direct comparison of organisational scores for the language and non-language construct samples.

Participants also took the Shipley vocabulary test (1940) as a rough index of their verbal ability.

Procedure

Students volunteering for the 'study of nonverbal aspects of person perception' were administered the three instruments in individual sessions lasting approximately 2.5 hours. Either a male or a female experimenter (randomly assigned) was present to explain the nature of the research. Considerable care was taken to establish an 'invitational mood' in which the respondent could become personally involved in the somewhat unusual requirements of the tacit and verbal construing tasks. For this reason, the experimenter attempted to put the person at ease with conversation about the student's major, hobbies and outside interests, emphasising creative facets of these activities and their continuity with the demands of the experimental situation.

After this conversation, the respondent completed the tacit construing technique, followed by the verbal rep test and finally the Shipley vocabulary test. This order of administration was observed with all participants, since each successive instrument, being more explicitly linguistic than the one before, might have contaminated the earlier results (e.g. after formulating the verbal constructs required by the rep test, respondents might have felt constrained on the TCT to produce only those non-verbal dimensions which they could have communicated readily in symbolic speech).

The administration of the TCT began by asking the volunteer to specify the first names of ten figures who most nearly filled the following roles in his or her life (adapted from Kelly, 1955): (1) mother, (2) father, (3) brother, (4) sister, (5) spouse, (6) closest same sex friend, (7) disliked person, (8) uncomfortable person, (9) appealing recent acquaintance and (10) liked teacher. Once this was done, the experimenter systematically drew the respondent's attention to two of the role figures, and asked him or her to 'symbolize using any of these [TCT] materials some important way in which the two figures are opposite'. The participant was encouraged simply to sort through the various media until he or she discovered something that seemed uniquely appropriate to designate the contrast he or she had in mind. In order to ensure that the task requirements were understood, the experimenter formulated three model constructs to differentiate two hypothetical figures in his or her own life. For example, the experimenter might have selected an exceptionally glossy card and a very rough-grained one from the 'texture' deck, explaining that the former represented something of the 'smooth style' of one of the hypothetical figures, in contrast to the 'coarseness' of the other. Alternatively, he or she might have chosen two 'picture' cards, one of which conveyed the gregariousness of one of the figures as opposed to the social isolation of the other. In all such cases, the experimenter tried to say something about the (fairly obvious) contrasts selected, but repeatedly emphasised that the discrimination being made might or might not be conveyed in words. The respondent was told that it was important only that the symbols he or she chose make 'a private kind of sense', and that no attempt to explain them verbally to the experimenter was necessary.

When the participant had formulated the first tacit contrast, the materials used were arranged spatially to flank a set of ten 13-point rating scales. The experimenter then instructed the student to think of each scale as a 'continuous dimension' ranging from one tacit symbol on the one extreme to the opposite symbol on the other, and to circle the scale number corresponding to where he or she would place each of the ten role figures on that dimension. A second dimension then was elicited by contrasting a second pair of figures, and each of the ten elements was rated on the new dimension. This sequence continued until all role figures had been rated on a total of ten personally elicited non-language constructs.

As soon as the TCT was completed, the experimenter conducted a brief post-testing interview with the respondent in an attempt to understand how the latter had made use of the non-verbal material. This involved asking such open-ended questions as 'How did you go about selecting the materials you used?' 'Would it have been just as easy to *say* what the difference between the figures was?' 'How

did the non-verbal symbols differ from words for you?' The participant's answers were recorded by hand, after which there followed a 5-minute break. The respondent then returned to complete the verbal rep test on the same ten role figures. He or she was asked to avoid simply verbalising the same contrasts tacitly symbolised in the earlier task, and again ratings of the figures were done immediately following the elicitation of each linguistically represented construct. The session concluded with the respondent taking the 40-item Shipley vocabulary test.

Results and Discussion

The Trichotomous Overlap Ratio Program developed by Landfield and his colleagues (Reference Note 2) was used to compute, from the scalar ratings on the TCT and rep test, the structural indices considered below. In keeping with the exploratory intent of the study, however, these findings should be considered only tentative, since the modest number of constructs elicited may not be fully representative of the respondent's total system (see Rosenberg, 1977).

Meaningfulness

A two-way ANOVA with type of instrument (verbal rep test versus TCT) and respondent's possession or non-possession of language equivalents of tacit constructs as factors (see below) was computed for total rating extremity scores. This disclosed a significant main effect for the instrument factor: placement of the ten role figures was more extreme on the verbal dimensions elicited by the rep test ($M = 373.5$, SD = 60.7) than on the tacit scales elicited by the TCT ($M = 344.7$, SD = 57.4; $F_{(1,25)} = 10.10, p < 0.01$) (Reference Note 3). Moreover, this finding held for male ($F^*_{(1,25)} = 11.05, p < 0.01$) and female participants ($F^*_{(1,25)} = 8.42, p < 0.01$) considered separately. In contrast, when only the placement of the original two elements (i.e. those which the construct was formulated to distinguish) was considered, non-verbal constructs tended to evoke more extreme ratings (matched pairs $t_{(26)} = 1.49, p < 0.10$). Taking the extremity score as an index of construct meaningfulness (cf. Bonarius, 1971, 1977), these findings are theoretically provocative. They suggest that tacit discriminations, while intensely meaningful at their *focus* of convenience, may be less permeable, less clearly applicable to a *range* of elements than are their linguistically articulated parallels.

On the basis of their responses in the post-testing interview, participants were classed into those who had in mind word equivalents of their tacitly symbolised dimensions at the time they performed the ratings ($n = 15$) and those who had no ready verbal translations of their unspoken constructs ($n = 12$). The inclusion of this classification as the second factor in the first two-way ANOVA demonstrated its irrelevance to the meaningfulness score obtained on the two instruments combined ($F_{(1,25)} = 0.012$) and on the TCT alone ($F'_{(1,33)} = 0.012$). Similarly, gross vocabulary ability, as gauged by a median split of respondents on the Shipley, was unrelated to the extremity of ratings on either the TCT ($F'_{(1,33)} = 0.061$) or the rep test ($F'_{(1,33)} = 0.002$) (Reference Note 4). This latter finding supports Kelly's (1955, page 462) implication that even the most verbally fluent individual relies importantly upon pre-verbal constructions.

Sex differences in the meaningfulness of construct application did emerge, however, with females ($M = 392.5$, SD = 45.8) rating more extremely than males ($M = 327.9$, SD = 56.3) across the pooled dimensions on the two instruments ($F_{(1,25)} = 13.41, p < 0.01$) and on both the TCT ($F'_{(1,33)} = 11.89, p < 0.01$) and the rep test ($F'_{(1,33)} = 10.57, p < 0.01$), taken independently.

Functionally Independent Construction (FIC)

As discussed by Landfield (1977), the FIC score reflects the number of 'functionally independent' clusters of constructs within the particular sub-system samples; the greater the FIC, the greater the differentiation or complexity of the sub-system being studied. In order to compare the relative differentiation of the tacit and verbal domains, a two-way ANOVA with sex and instrument type as factors was computed. No difference obtained between the FIC scores on the TCT and the rep test ($F_{(1,25)} = 1.55$). Rather than forming a crude and undifferentiated sub-verbal network, it appears that tacit construing may be fully as complex as systems of verbalised discriminations employed by the same respondents.

However, significant interaction between sex and instrument type on FIC was found ($F_{(1,25)} = 4.77, p < 0.05$). Whereas the males were similarly differentiated in both subsystems ($M_{(\text{tacit})} = 7.6$, SD = 1.4; $M_{(\text{verbal})} = 7.2$, SD = 1.3; $F^*_{(1,25)} = 0.88$), females displayed greater complexity in the tacit domain than in the verbal ($M_{(\text{tacit})} = 8.5$, SD = 1.5; $M_{(\text{verbal})} = 7.2$, SD = 1.8; $F^*_{(1,25)} = 11.75, p < 0.01$). Moreover, they surpassed the males in differentiation of their non-verbal systems ($F'_{(1,47)} = 4.62, p < 0.05$), while only equalling them in the linguistic realm ($F'_{(1,47)} = 0.32$, n.s.). It should be noted that this theoretically intriguing finding (that females may be more complex than males in their use of non-language constructions) comes to light only when exclusive reliance upon the conventional verbal rep test is abandoned.

Ordination

The 'ordination for constructs' score is essentially a measure of the subtlety with which any given construct is applied to a range of role figures, a subtlety which suggests its functioning at relatively more superordinate or core levels within the individual's psychological economy (Landfield, 1977). No sex differences or interaction effects were disclosed by a two-way ANOVA with sex and instrument type as factors ($F_{(1,25)} = 0.02$ and 0.00, respectively). However, there was evidence implying the more superordinate status of tacit constructions ($M = 25.4$, SD = 3.8) relative to those communicated in symbolic speech ($M = 22.8$, SD = 5.8; $F_{(1,25)} = 7.54, p < 0.01$). This finding lends support to the contention that verbally explicated constructs 'leave shrouded in preverbal mystery. . . the ultimately personal [or core] aspects of the self' (Neimeyer, 1977, page 351).

Methodological and Theoretical Implications

The foregoing study has demonstrated the feasibility of using diverse media such as those provided in the TCT to represent unverbalised constructs in a Repertory Test

format. Moreover, although these materials were employed independently of language dimensions in the above investigation, it may prove useful to augment the respondent's fund of word-labelled discriminations with tacit symbols on a single instrument, in order to allow him or her more flexibility in designating important constructions. For example, the creative respondent may choose to express non-verbally the implicit pole of an emotionally significant construct, whic which otherwise would fail to appear on a conventional verbal rep test. In like fashion, an individual might represent via such tacit symbols a discrimination which might be too personal or too 'socially undesirable' to communicate in words in the presence of the experimenter.

The TCT or a comparable technique may be of particular interest to psychologists working with child or clinical populations. The child, although restricted in the number of sophisticated speech discriminations at his or her disposal, may nonetheless be able to convey the essence of a given construct by making use of non-verbal graphic materials. Furthermore, a technique enabling the tacit expression of operative pre-verbal reference axes may help the client in psychotherapy communicate to the therapist something of the functional meaning of an otherwise private construction.

Finally, the findings of the present study, if corroborated, may add detail to an emergent theory of tacit construing adumbrated in the writings of authors both within construct theory (Kelly, 1955; Radley, 1977) and outside our discipline (Polanyi, 1964, 1967). Emphasising the central role of such inarticulate constructions in our total functioning need not imply a distrust of our ability to order our experience linguistically; rather it defines more broadly our symbolic capacities beyond that of the formal language system we indwell.

Acknowledgements

I wish to express my appreciation to Ellanor Ward for her administrative assistance, and to Mike Acree and Kathy Story for their reviews of an earlier draft of this paper.

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Reference Notes

1. G. Neimeyer (1979). Exploring nonverbal constructs. Unpublished manuscript (available from G. Neimeyer, Dept. of Psychology, Hagar Hall, University of Notre Dame, Notre Dame, IN, 46556)

2. This program is available from A. W. Landfield, Dept. of Psychology, 209 Burnett Hall, University of Nebraska, Lincoln, NE, 68588.

3. The F-values appearing in the text derive from harmonic mean analyses of variance (Rankin, 1974) which permit comparisons including unequal cell sizes. The F^* and F'-tests of significance reported hereafter are tests for simple effects within a complex factorial design containing repeated measures (Winer, 1971, pages 529 ff).

4. Pooling extremity scores across type of instrument yields the same conclusion ($F_{(1,25)} = 0.010$). In this and the subsequent two-way ANOVA on meaningfulness scores, instrument type constituted the second factor, and the same finding discussed earlier (verbal constructs producing more extreme ratings over the range of ten role figures) was evidenced in each case. For this reason, these redundant results will not be repeated above. Furthermore, no interactions of the instrument factor with any of the others approached significance, making the interpretation of the results especially clear-cut.