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A Study of the Reliability and Validity of the Repertory Grid Technique as a Measure of the Hysteroid/Obsessoid Component of Personality

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One of the most attractive features of the Repertory Grid Technique from the clinician's point of view is that it provides a quantifiable test of hypotheses concerning data which are not readily measurable by more traditional standardized instruments (such as questionnaires). An example of such a situation as this would be where the psychologist wishes to measure change in a person's construing of his world before and after psychotherapy. This immediately involves, however, questions concerning the "reliability" and "validity" of the particular grid or grids used. How do we know whether reasonably stable psychological processes within the individual are reflected in equally stable mathematical relationships between constructs, and how do we know that we have chosen, or elicited, those constructs which really are most psychologically meaningful to the subject, or indeed psychologically meaningful at all?

Because of the infinite variability in types of grid as well as the personally based nature of the technique, grid theorists rightly warn against the futility of thinking in terms of "the reliability" of "the grid" (Bannister and Mair, 1968). The intensely idiographic nature of the grid makes the problem of validity similarly complex, since constructs may be understood in different ways by different people, so that in any analysis of group data meaningful individual differences become lost in a meaningless norm. There is, however, some evidence (Mair, 1966) that public agreement concerning the meaning of constructs is not necessarily unattainable. Other evidence suggests that constructs elicited from the subject may be more meaningful to him than constructs provided for him by the psychologist (e.g. Caine and Smail, 1967).

Having heeded the warning that grid data cannot by their very nature easily be used in group contexts, the psychologist may nevertheless feel that there are occasions when the constructs he wishes to use have a sufficient degree of "commonality" and are of such theoretical psychological interest that they may be presented to subjects with the minimum of risk that any group effect will become lost in a sea of individual differences.

The present study stems from a frustrated attempt of the authors to measure change as the result of psychotherapy, in which two groups of neurotic patients were compared in terms of changes in grid relationship scores over a three month period. One group had been receiving intensive psychotherapy in a therapeutic community setting, the other had been receiving drug treatments and superficial support. Both groups showed quite large changes in their grid relationship scores (using Bannister's method of rank ordering of elements, and with constructs supplied by the experimenters), and there was no difference between groups in the extent of change. Being unwilling to believe that the psychotherapy group, having had their systems of construing battered by the treatment community for three months, really had changed no more than the relatively untouched comparative sample, the authors felt that the fault might lie in an uncontrollable instability of the grid. We recognize, of course, that there might be other reasons for the failure of the grid to reflect change, not least among them the method used of setting up the grid in this case. Nevertheless, we felt that before embarking on a detailed investigation of the various possibilities the basic question of the stability of grids of this kind should be looked at first, and we

therefore decided to submit a form of the grid to a fairly rigorous test of stability in conditions in which it really *ought* to be stable if it can be used at all meaningfully in situations of this kind.

Following Kelly, Bannister and Mair (1968) contend that "man is a form of motion" and that grid methods and theory support this view in contrast to the static view of man as represented by "trait" theory in the psychology of personality, with its aim of highly reliable tests of enduring personality traits. There is, however, considerable experimental and clinical evidence to support the view that certain aspects of behaviour *are* more enduring and consistent than others. Reviews of the literature in this connexion have been provided by one of the authors (Caine, 1965, 1969), and experimental evidence in support of this has been presented in a long term evaluation of the effects of psychotherapy (Caine and Smail, 1969).

The purpose of the present investigation, then, is to determine how successful repertory grid technique is in measuring a known, stable aspect of personality functioning.

Method

The dimension of personality selected was the "hysteroid/obsessoid" component. The experimental evidence is consistent in showing a high reliability in normal subjects as measured by the Hysteroid/Obsessoid Questionnaire (Caine and Hope, 1967), and a considerable resistance to change as compared with other aspects of psychological functioning measured over a five year period following intensive psychotherapy (Caine and Smail, 1969).

Paralleling the Hysteroid/Obsessoid Questionnaire (HOQ) a repertory grid containing hysteroid/obsessoid traits was devised. Also included was the construct "like me in character". Subjects could then rank the elements (people known personally to them) they had selected on the hysteroid/obsessoid constructs, and the relationship of these constructs with the construct "like me in character" gave the hysteroid/obsessoid score. The constructs used were:

1. Like me in character.
2. Likes to be the centre of attention. (Hysteroid.)
3. Feels things deeply. (Obsessoid.)
4. Has frequent changes of mood. (Hysteroid.)
5. Hides feelings—keeps them to self. (Obsessoid.)
6. Makes decisions quickly (makes snap judgments). (Hysteroid.)
7. Has a highly developed conscience (worries about doing the "right thing"), etc. (Obsessoid.)

As a validation, subjects were also asked to complete the HOQ. Reliability was determined by subjects completing both tests three months later, using the same elements and constructs in the repertory grid.

The subjects, 22 in number (8 male and 14 female), were volunteers drawn from the technical and administrative branches of a psychiatric hospital. Mean age for the sample was 41, with range 22 to 57. Subjects were told on the first occasion of testing that they would be asked to complete the same tests again three months later.

Results

Relationship scores ($rho^2 \times 100$) between the construct "like me in character" and each of the other constructs were summed (having reversed rankings on the "obsessoid" constructs in order to make the emergent pole "hysteroid" in every case) to give a total hysteroid/obsessoid score. Using this score, the reliability of the grid (Spearman rho) is $\cdot 58$ ($p < \cdot 01$) over the three month period. The corresponding reliability of the HOQ is $\cdot 93$ ($p < \cdot 01$). The "validity" correlations between the grid and the HOQ were $\cdot 52$ ($p < \cdot 05$) on the first administration, and $\cdot 57$ ($p < \cdot 01$) on the second administration.

In case the total relationship score used above was masking wide variability in the reliability and validity of the individual ("like me"—hysteroid/obsessoid) construct pairs, a similar analysis was carried out for each of these pairs separately. Table I shows the results of this analysis.

To examine further *variations* in the stability of the relationship between individual construct pairs from the first to the second administration, an analysis of variance was carried out on the

TABLE I

Reliability and Validity of "Like-Me"—Hysteroid/Obsessoid Construct Pairs

	Construct Pairs					
	1–2	1–3	1–4	1–5	1–6	1–7
Reliability (1st to 2nd admin.) ..	·49*	·69†	·35	·64†	·11	·33
Validity (rho with HOQ)						
1st admin.	·46*	·25	·48*	·42*	·07	·19
2nd admin.	·29	·33	·27	·33	·42*	·63†

* $p < ·05$.
† $p < ·01$.

difference between relationship scores on each of these pairs over the three month period. In fact "within" variance is much greater than "between" variance, and so no significant differences between construct pairs emerged. The mean amount of relationship score change from the first to the second administration was, for all construct pairs considered together, 26·39 (s.d. 26·32). Considering that changes in relationship score may vary over a possible range of 200, this figure may be interpreted as reflecting a reasonable degree of stability of relationship between construct pairs over time.

The grid may be further analysed by calculating the stability of the ranking of the elements for any given construct. Table II shows the rhos between the ranking of the elements on the 7 constructs over time.

TABLE II

Reliability of Ranking Elements on Seven Constructs Over a Three Month Period

Construct	Rho 1st to 2nd admin.
1	·71
2	·82
3	·79
4	·69
5	·63
6	·52
7	·59

The mean overall rho here is ·68, which would appear to reflect a reasonable degree of stability as far as the ranking of elements over time is concerned. An analysis of variance on the corresponding relationship scores reveals a significant difference between the constructs in terms of the stability with which elements are ranked ($F = 2·21$, $p < ·05$).

DISCUSSION

Presumably one's evaluation of the stability of the repertory grid in this study will depend on the demands one makes of a test of this kind, as well as on the particular statistical technique used as a measure of reliability.

Considering that constructs were supplied to subjects rather than elicited from them; that, in contrast to the HOQ, subjects were in effect rating other people rather than themselves on these constructs; and that the statistical procedures involved in ranking subjects on the extent of relationship scores between constructs leave considerably more room for error than does a straight questionnaire score, one might feel that the obtained coefficients of reliability and validity are reasonably encouraging.

On the other hand, in view of the evidence concerning the stability of the hysteroid/obsessoid dimension of personality and the obtained reliability coefficient of the HOQ of ·93 in this study, one should probably not set too much store by *changes* in grid scores over time even when one believes that the underlying psychological dimension is extremely stable; a certain amount of instability in the grid seems inevitable even in these circumstances. In particular, one should bear in mind

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that different tests of reliability will give different indications—the rank ordering of *elements* from one occasion to another may demonstrate relatively high stability, whereas the rank ordering of *subjects* on the basis of between-construct relationship scores may not be so easily reproduced, although in fact *changes* in these relationship scores over time may be relatively slight.

A further point is that, having been told that they would have to repeat the test, some subjects may have been led to think in an unusually "conscious" way about their ranking of elements during the three month gap between testing occasions. This was certainly the case with one subject who later admitted to making notes during this time about the elements he had selected, and who in fact was the only subject to exhibit after three months significant *negative* correlations between constructs which had previously been significantly *positively* related. This suggests that the precise nature of the instructions given in reliability studies may have profound effects on the results.

The present study reveals that there are what might be considered moderately encouraging coefficients of reliability and validity to be derived from a form of the repertory grid under conditions which were intended to maximize stability in particular. The grid does not perform as satisfactorily as a questionnaire in this case, but nor was it designed, or expected, to do so. To use the grid to measure a personality trait of this kind would be unnecessarily tortuous.

Although one may have a limited degree of confidence in using the grid in this kind of "group" situation, we should none the less agree with Bannister and Mair (1968) that: "Probably the most useful, if not the most frequent, ventures will be those in which the grid is used with a single patient where the approach has formal coherence, so that predictions are made before test, the lines of treatment appropriate to negation or support of the hypothesis are specified before test, and the criteria of successful outcome of these predictions are defined in advance."

Summary

The stability of a form of the repertory grid as a measure of a known, relatively stable aspect of personality (the hysteroid/obsessoid dimension) is examined. Although less stable than the validation criterion, the grid evidenced some significant reliability. Reasons for grid instability are discussed.

References

Bannister, D., and Mair, J. M. M. (1968). *The Evaluation of Personal Constructs.* London and New York: Academic Press.

Caine, T. M. (1965). "Obsessoid and hysteroid components of personality." In Foulds, G. A., *Personality and Personal Illness.* London: Tavistock.

—— (1969). "Personality and illness." In Mittler, P. (ed.), *Psychological Assessment.* London: Methuen. (In press.)

—— and Hope, K. (1967). *Manual of the Hysteroid-Obsessoid Questionnaire* (*H.O.Q.*). London: Univ. London Press.

—— and Smail, D. J. (1967). "Personal relevance and the choice of constructs for the repertory grid technique." *Brit. J. Psychiat.*, **113**, 517–520.

—— —— (1969). *The Treatment of Mental Illness: Science, Faith and the Therapeutic Personality.* London: Univ. London Press. (In press.)

Mair, J. M. M. (1966). "Prediction of grid scores." *Brit. J. Psychol.*, **57**, 1 and 2, 187.

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