

“Under-inclusion”—A Characteristic of Obsessional Personality Disorder: I

By G. F. REED

Although there is a voluminous psychiatric literature concerned with obsessional personality disorder, there are very few psychological studies of the condition. In particular, whilst the *thinking* of anankasts has been classically and perceptively described by many psychiatric authorities, only a handful of psychological experiments exclusively concerned with anankastic cognition have been reported (cf. Skoog, 1964). It is suggested that this is largely because interest has centred on the *content* of obsessional behaviour at the expense of its *form*. The present study is a brief report of one among several investigations suggested by consideration of the formal qualities of obsessional thought as opposed to its “dynamic” or symbolic features. The hypothesis (Reed, 1968) is that the formal characteristics of anankastic cognition are directly related to functional impairment in the spontaneous organization and integration of experience. It is postulated that this failure is expressed in the over-structuring of input and in the maladaptive over-defining of categories and boundaries. From this may be derived the prediction that, given a classificatory or conceptual task, the anankast will be over-specific in his interpretation of the given class and therefore too strict in his acceptance of appropriate class members and attributes.

One standard type of psychological test which allows for the testing of the above prediction is that in which the subject is given class or concept X and is required to produce $x_1, x_2, x_3 \dots x_n$ or to select one or more of them from a set of alternatives. This may be termed a deductive task, as the objective is to deduce specific examples of the given general class. The prediction is that the anankast will be too stringent in his approach to an array of possible alternatives, selecting too few as

being appropriately regarded as members of the given class. This will not be apparent in terms of conventional scores, but should show up in the types of error made.

METHOD

Subjects

These consisted of 25 patients suffering from obsessional personality disorder, 25 matched psychiatric control patients and 25 matched normal controls. Triads were matched in terms of (a) sex, (b) age, (c) number of years of full-time education, and (d) occupation. Each group consisted of 14 men and 11 women with a mean age of 30 (range 16-55).

All fifty patients had been admitted as day- or in-patients to the University Psychiatric Unit, Manchester Royal Infirmary, under the care of Professor E. W. Anderson. They had been strictly classified in accordance with Schneider's (1958, 1959) criteria. Cases with additional diagnoses of schizophrenia, brain injury or demonstrable neurological involvement were excluded.

The members of the obsessional personality disorder group had all received a primary psychiatric classification of “anankastic personality disorder”.

Of the psychiatric controls, 17 had received primary classifications of other types of Schneiderian personality disorder (the “attention-seeking psychopath” predominating), five of “abnormal psychogenic reaction”, one of “abnormal psychogenic development” and two of “compensation neurosis”. The important point here is that none had shown obsessional/anankastic traits or symptoms.

The normal controls were obtained by personal contact. They were not connected with the hospital and had no known psychiatric history.

Test Materials and Administration

The type of test required was a verbal concepts task which could be “scored” in the conventional manner but which allowed ample scope for individual differences in classificatory approach. For present

purposes a short test of the "Essentials" type suitable for use with adults was developed. (The test items were selected after analysis of a pilot version administered to 100 normal subjects, scoring criteria being drawn from the responses of 50 post-graduate professional people and senior undergraduates.) A copy of the final version is presented in the Appendix.

Subjects were tested individually. The test was presented in printed form, but the examiner read through the instructions and each of the questions with the subjects to obviate reading difficulties. No time-limit was imposed.

Measures used

(a) Conventional scoring

Conventional scoring consisted in allotting one mark for each item where all and only the "correct" words were underlined. Items where too few or too many words were underlined were regarded as incorrect, even though one or more words had been underlined correctly. Thus, if only the word "top" was underlined in item 1 the response would receive no score. Similarly, if in item 8 both "wetness" and "flowing" were underlined the item would receive no score. The maximum possible score was thus 14.

(b) Deductive Classification—Over-Specificity of Concept

Answer sheets were re-examined to determine in each case whether the approach had been predominantly one of over- or under-definition of the given concepts. This was done firstly by examining each answer scored as incorrect, to see whether failure had been caused by underlining too few or too many alternatives. There proved to be three major types of incorrect answers:

- (a) Those where the right word or words had been underlined plus one or more other words. This was taken as the standard "under-defining" type of error (too many alternatives selected).
- (b) Those where, two or more words being required, less than the required number had been underlined, although these were correct. This was taken as the standard "over-defining" type of error (too few alternatives selected).
- (c) Those where only the word "None" had been (incorrectly) underlined. This was taken as an "over-defining" type of error, because no alternatives had been selected.

Other types of error were very rare and have been discounted here. It was ascertained that their

inclusion would have had no radical effect on the results.

Errors having been analysed as above, each subject was then classified either as an over- or under-definer according to which type of error was in the majority.

The second method chosen to demonstrate the characteristic styles of approach was simply to total, in each case, the number of words underlined on the test (other than "none") regardless of score.

RESULTS

(A) Conventional Scoring

Table I presents the mean and standard deviation of the conventional scores for each group.

TABLE I
"Essentials" Test—Conventional Scoring
Group mean scores and standard deviations

Group	Mean	S.D.
Anankasts	6.16	2.39
Non-obsessional Psychiatric Controls	6.32	2.27
Normal Controls	6.40	2.38

There is no statistically significant difference between the three groups, the mean scores of which are very similar indeed.

(B) Over-specificity of concept

Table II presents the distribution by groups of over- and under-definers as determined by each individual's predominant type of error.

Table III presents the mean and standard deviation of the number of words for each group, and results of analysis of variance.

Both in terms of predominant error-type and of numbers of words underlined the difference between the groups is highly significant. In each case this is due to the results of the anankastic group; the control groups do not differ significantly from each other.

DISCUSSION

Despite clinical observations of anankasts' superior verbal ability (e.g. Fenichel, 1945), there is no evidence here to suggest that they show any superiority over matched controls when performance is in the conventional terms of "number of items correct". This finding

TABLE II
 "Essentials" Test—Distribution of Predominant Error-Types by Subjects

Group	Predominantly			
	"Under-defining" (too many alternatives)	"Over-defining" (too few alternatives)	Equal numbers of too few and too many	
Anankasts	3	18	4	25
Non-obsessionals	22	2	1	25
Normals	20	1	4	25
	45	21	9	75

For analysis the last two columns were pooled to attain appropriately sized expected cell frequencies.

$\chi^2=36.33$ $df=2$ $p<0.001$

TABLE III
 "Essentials" Test—Numbers of Words Underlined
 (a) Group mean underlinings and standard deviations

Group	Mean	S.D.
Anankasts	25.80	4.07
Non-obsessional Psychiatric Controls	30.64	4.41
Normal Controls	29.40	4.27

(b) Analysis of Variance

Source	S.S.	D.F.	M.S.	F	p
Between Groups	316.03	2	158.01	8.73	0.001
Within Groups	1303.76	72	18.10		

suggests that the matching procedures were effective; it indicates that other differences between the groups can scarcely be attributed to differences in verbal ability as such. (This is of particular importance in the present instance because in the sort of test used here there is an association between ability level and error type.) The finding is not of relevance to the prediction under test here, which, as stated previously, cannot be tested by examination of the conventional scores. Results of analysis of error-types, however, support the prediction quite consistently and at a very high level of significance. They suggest that anankasts, by comparison with normal and non-obsessional neurotic controls, tend to over-define or over-specify their verbal concepts. In other words, they allocate unduly strict limits to conceptual

categories and thus admit fewer components or attributes to each category.

This finding is in accord with a number of classical clinical observations. It bears a close relation to the false dichotomizing referred to by Janet (1914) as "*la manie du tout ou rien*", Graber's (1931) "neurotic typing" and to the "compulsive systematizing" discussed by Freud (1936). All these observations refer to the establishment of rigid and exclusive categories; this is implied in the over-specificity shown here. The results also offer a direct demonstration in the conceptual sphere of the "overmeticulous circumstantiality" described by Rapaport (1951).

As mentioned in the introduction, there has been a dearth of fruitful psychological experimentation in this sphere. The present findings are in line with some reported by Hamilton (1956) in his study of ambiguity tolerance. But the criterion used by Hamilton for the selection of his "obsessional" cases was that of "predominant symptoms", whereas the present study is concerned with anankastic (obsessional) personality disorder. Rapaport (1946) presented a number of relevant and interesting clinical observations, but in the cognitive field his findings failed to support his intuitive predictions, and neither he nor Wechsler (1958) succeeded in finding any obsessional cognitive pattern. This failure, it may be suggested, is due to the fact that they limited themselves to the analysis of results of standard tests conventionally scored.

The conceptualizing style which the present findings seem to indicate may be considered in the light of studies in normal psychology of "category width" (e.g. Pettigrew, 1958). When related to studies of abnormal cognition, the style might be termed "under-inclusion". It is identical in type, but opposite in direction, to the "over-inclusiveness" which is regarded as characteristic of schizophrenic thinking. Cameron (1944) has defined over-inclusion as the inability "to restrict, eliminate and focus . . .". It is generally taken to include the application of over-broad categories and a general looseness in classificatory limits. The disorder has been described and experimentally examined by a number of writers (reviewed by, e.g., Payne, 1961), one of whom, Epstein (1953), used a verbal test very similar to that described above to show that schizophrenics underlined significantly *more* words than a matched group of normal subjects. Thus it may be possible that the present findings have identified an anankastic thought disorder suggestive of comparative links with schizophrenic cognition.

The results demonstrate that it is possible to identify objectively at least one cognitive characteristic of anankastic patients which may have a number of clinical implications. Furthermore, these findings suggest that previous psychological failures to differentiate anankastic cognitive activity may have been due to conventionality of scoring—how many errors—rather than what sort of errors. It may be that it is not so much *what* the anankast does that should invite attention as *how* he does it.

SUMMARY

A group of 25 patients suffering from obsessional personality (anankastic) disorder was compared with a control group of non-obsessional patients and with a normal control group. On a simple verbal test of the "Essentials" type, conventional scoring failed to differentiate the groups. However, the anankasts underlined significantly fewer words; their predominant error-types were related to stringency in acceptance of characteristics or attributes regarded as essential to a given concept. This "under-inclusion" is discussed in relation to previous findings.

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APPENDIX

The "Essentials" Test (*"correct" items have been underlined*)

NAME..... AGE.....
OCCUPATION..... DATE.....

In each of the following questions there is a word in capital letters followed by five other words. Your job is to decide in each case whether any of the five are *essential* to the first and underline them.

In some cases none of the five may be essential to the first; in such cases underline the word "None" at the end of the line. Remember, only words which are *essential* count. There may be one, two, three, four or five in each line, or there may be none at all. Here is an example:

DOG

Head, collar, legs, kennel, tail, None.

Here the words "head", "legs" and "tail" have been underlined because they are all necessary parts of a normal dog. (Notice that in every case you must take the thing signified by the first word as being in a normal, undamaged state.) A collar and a kennel are both desirable but the dog can manage without them.

1. TABLE

Cloth, vase, legs, drawer, top. None.

2. ROOM

Windows, door, walls, floor, furniture. None.

3. KNIFE

Metal, blade, sharp, handle, fork. None.

4. ATHLETE

Medals, feet, neck, jersey, track. None.

5. BOOK

Shelf, cover, pictures, pages, print. None.

6. PROCESSION

Band, flags, movement, police, people. None.

7. ORCHESTRA

Instruments, musicians, hall, piano, music stands.
None.

8. WATER

Tap, flowing, wetness, fresh, drinking. None.

9. MOTOR CAR

Roads, wheels, garage, driver, engine. None.

10. HERO

Strong, soldierly, honest, patriotic, brave. None.

11. SAINT

Hermit, bravery, poverty, dedication, priest. None.

12. TREE

Roots, trunk, branches, leaves, seeds. None.

13. MOVEMENT

Time, smoothness, fast, weight, space. None.

14. SIN

Punishment, guilt, death, corruption, sadness. None.

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