Brit. J. Psychiat. (1977), 130, 177–83

Obsessional Personality Disorder and Remembering

By GRAHAM F. REED

Summary. Patients suffering from obsessional personality disorder (anankasts) have been described as possessing 'superior memories', because of the detailed precision of their accounts. At the same time, such classical phenomena as doubt, checking and rumination imply faulty recall. This paradox is discussed, and some predictions drawn from a hypothesis regarding the cognitive characteristics of obsessional disorder. Findings are presented which indicate that, by comparison with matched psychiatric controls, anankasts do not excel in the long-term recall of factual information or meaningful anecdotal material. But they show the following mnemonic features:

(a) Superiority of immediate memory span, reflecting high levels of attention.
(b) Superior recall of ambiguous anecdotal material, reflecting a tendency to the pointless 'rehearsal' of such material.
(c) Weak redintegration in personal reminiscence.

It is suggested that anankasts' doubts about their remembering refer not so much to the correctness of what is being recalled as to the quality of the recalling itself.

Of all mental disorders, that of obsessional personality (anankasm) is the one most characterized by paradoxicality. And nowhere is this more striking than in the sphere of memory. Clinical accounts bear eloquent witness to the 'superior memory' displayed by obsessional patients. This was discussed by Janet (1903) in his classical study of the disorder, as well as by more recent writers (e.g. Barucci, 1954; Petrilowitsch, 1960). Indeed, the precision of recall demonstrated by obsessionals very often goes beyond the point. The meticulousness of their reports may itself be classified as abnormal, and such patients' uncanny recall of trivia and their drive to produce complete and circumstantial accounts have often been categorized as hypermnesia. At the same time, perhaps the most central feature of obsessional disorder seems to involve pathologically *faulty* memory. The doubts and indecision which lie at the heart of the disorder are often of the 'Did I or didn't I?' variety, which is often manifested in compulsive checking and ritualization. Brooding and ruminations are often related to the patient's fears that he *may* have committed some harmful or horrifying act.

This paper represents an attempt to clarify some of the issues involved, to present some relevant evidence and to offer a possible resolution of the central paradox.

The first point to be made is that it is misleading to regard memory globally. To say that someone 'has a good (or a bad) memory' is a common lay usage. But it implies (a) that memory is an ability or faculty, and (b) that it is unitary. Neither of these statements would be acceptable in the face of findings in cognitive psychology. Remembering, as Bartlett (1932) demonstrated, is a dynamic, constructive activity, involving the organization of a number of mnemonic processes operating at several levels. With this in mind, it is clearly unjustifiable to assert, without specifications, that a group of individuals display a 'superior memory'. Does this refer, for instance, to immediate recall, short-term memory or long-term memory? To the facility with which material can be recalled or the *amount* of material? To the correctness of

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press

that material which has been recalled? Does it apply to all types of material or only to some? To be scientifically meaningful, any statement about mnemonic performance should specify the precise activity under consideration; generalization to performance of other activities can only be very tentative.

A major problem in considering clinicians' assessments of their patients' memory functions is the quality of the evidence on which such assessments are based. In the present instance, it may well be that many clinicians are impressed by the meticulousness of obsessional patients' recitals and by their insistence upon precision. The difficulty here is that by their very nature a patient's accounts of e.g. his early life are practically impossible to verify. The validity of a recollection cannot be substantiated by its circumstantiality, nor by the solemnity of its presentation. Again, the clinician's estimate may be based on the performance of such short tests as he includes in his examination of the patient's mental state. Administered appropriately, such tests provide valuable information about the patient's current cognitive functioning; but inasmuch as they only demand immediate recall, their results are not generalizable. Furthermore, they reveal little about the ways in which different types of material are handled.

Whatever the bases for clinical generalizations, no operational definitions of what psychiatrists mean by 'superior memory' seem to have been presented. The term can only be taken in its widest sense, and the prediction derived is that, by comparison with control subjects, such as patients suffering from other neurotic or personality disorders, obsessionals (anankasts) will achieve superior scores on all types of memory tasks.

The present writer (Reed, 1968) has proposed the following hypothesis: 'That the formal characteristics of anankastic/obsessional cognition are directly related to functional impairment in the spontaneous organization and integration of experience. This is expressed in the over-structuring of input, and in the maladaptive over-defining of categories and boundaries.'

This hypothesis makes no direct presumption about mnemonic processes. But two considerations have an indirect bearing upon the subject, and from these it is possible to derive predictions about anankastic performance in several activities. Firstly, it is postulated that the anankast's inability to structure and integrate his experience spontaneously leads to an intellectualizing and analytic examination of data. He is relatively incapable of the intuitive acceptance of input. In other words, he is more consciously attentive to stimuli. Secondly, his difficulties in categorization will be expressed in relatively prolonged consideration of ambiguous data. The first postulation suggests that the anankast will generally *concentrate* more on the task in hand. The second suggests that he will tend to repeat or rehearse ambiguous (i.e. not readily categorizable) experiences more than is warranted. From these considerations it may be deduced that he will perform more efficiently than others on (a) recall tasks where achievement is particularly related to concentration of attention, and (b) tasks involving ambiguous material where rehearsal will improve subsequent performance but where it is not demanded by the experimenter or the situation. (If rehearsal *is* demanded, of course, it may be predicted that the non-anankast will comply, so that the anankast is not at an advantage.) The hypothesis also suggests a further prediction, although it is not to do with recall performance as such, but with the quality of the recall experience. The subjective flavour of personalized recall (reminiscence) must reflect the level of schematization of the original experience (Bartlett, 1932; discussed by Reed, 1972). If the anankast suffers impairment in the organization and integration of experience, this would imply some attenuation in schematization (including the personal element). It may be predicted, therefore, that reminiscence will be experienced with a diminution or unevenness of personalization. There will be a relative lack of ego-invested flavour in the experience of recalling. In technical terms *redintegration* will be incomplete.

Method and Results

There follow the results from a conventional test of long-term recall, and from some preliminary tests of the three predictions above.

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press

Test 1. Long-term recall

The conventional way of assessing long-term recall is that of requiring subjects to demonstrate their knowledge of miscellaneous, generally known facts. Such a task, of course, also reflects the subject's level of education and his whole background of cultural experience and interests. It can be argued, however, that subjects matched as in the present study have received roughly equivalent opportunities for assimilating information.

Test material and administration. The test selected was the 'Information' sub-test of the WAIS. This consists of 29 questions, each requiring simple, factual answers. The questions are presented orally. They range in difficulty from: 'What are the colours in the Union Jack?' through 'Who wrote *Hamlet*?' to 'What is the Apocrypha?' The test is administered individually and is untimed. It is discontinued after five consecutive failures.

Scoring. One point is allotted for each correct response, criteria answers being supplied in the test manual. No partial credits are given. The maximum possible score is therefore 29.

Subjects. These consisted of 30 patients with a primary psychiatric classification of anankastic personality disorder. Each was matched with a control patient suffering from some other type of personality disorder. Matching was done in terms of age, sex, number of years of full-time education, occupation and social class of origin. Each group consisted of 16 men and 14 women. Classifications had been made in strict accordance with Schneider's (1958, 1959) criteria.

Results. The mean group score for the anankasts was 14·56, that for the controls was 16·33. The result of the t-test for related measures was $t = 1 \cdot 66$, which does not indicate a satisfactory level of statistical significance ($P < 0 \cdot 20$).

Test 2. Immediate recall

The classical test of immediate memory is Digit Span, where the tester recites a series of digits which the subject is required to repeat immediately. Now, as Rapaport (1946) argues, this is primarily a test of *attention.* Despite its establishment as the test of choice for immediate memory, there is no evidence that its correlation with tests of remote or even recent recall is any higher than other tests of cognitive function (and it is known to have only low correlations with other sub-tests in intelligence test batteries).

Test material and administration. The actual digits and procedure employed here were those used in the WAIS. This employs series of digits to be repeated forwards and others to be repeated backwards. The test is administered individually and is untimed. Digits are presented at the rate of one per second, carefully ungrouped.

Scoring. The score is simply the highest number of digits repeated correctly on either the first or second (alternate) trial for Digits Forward and Digits Backward. These are summed, so that the total possible score is 17.

Subjects. These were the 30 matched pairs described above.

Results. The mean group score for the anankasts was 12·66, that for the controls was 10·70. The result of the t-test for related measures was 2·97, which indicates a high level of statistical significance ($P < 0 \cdot 01$).

Test 3. Rehearsal of ambiguous material

The second prediction drawn from the present hypothesis is that the anankast will 'rehearse' ambiguous, unstructured or unclassifiable material. It may reasonably be argued that unfinished tasks come under this heading. In one sense, the very lack of completion of an unfinished task implies that it cannot be neatly classified (as 'finished and done with'). But in another sense such a task may well be unambiguous and highly structured. This applies to most of the tasks employed in Zeigarnik's (1927) classical study (e.g. stringing beads, drawing, punching holes) which was specifically aimed at the effects of *interruption* on subsequent recall.

Furthermore, later workers, such as Glixman (1949) have demonstrated that the subject's motivation and attitudes towards the tasks may reverse the Zeigarnik effect. If completion of the tasks is regarded as ego-enhancing, the subject may well remember the tasks he completed better than those he 'failed'. Rosenzweig (1943) suggested, indeed, that 'ego-defensive' reactions to interruption might involve actual repression of the interrupted tasks. So

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press

that, although it is clear that interruption or lack of completion affects recall, several other factors are in operation as well as simple 'task tension'.

For these two reasons, it was decided that Zeigarnik's method was not an appropriate one for the testing of the present prediction. Also, it was considered desirable that recall should be measured over a longer period than that employed in previous 'task tension' experiments, where it has been required immediately after the administration of the tasks. Finally, a satisfactory test for present purposes should allow comparison between the predicted, non-required 'rehearsal' and deliberate, required rehearsal.

It was eventually decided that an apt method would be the presentation of material in the guise of logical problems. Appropriate measures of recall could be made by presenting the problems in anecdotal settings. And ambiguity or 'non-classifiability' could be established by the use of insoluble as well as soluble problems.

Test material and Administration. Four anecdotal problems were devised (see Appendix). The first two were versions of classical mental puzzles; the other two were plausible but insoluble inventions. Problems A and B (the soluble problems) were read out to each subject, who was encouraged to attempt to solve them. But in each case, after three minutes, the tester said: 'Well, we haven't got time for you to work it out now. Try to work it out later, and I'll tell you if you're right the next time I see you. Remember, the details are pretty important. I'll just tell you the problem again, so that you can be certain that you've got the facts straight.' He then read the problem out once more and proceeded to the next. Problems C and D were introduced by the statement that the tester had been amusing himself by making up problems which had no solution. He then read out each of the two problems in turn, allowed the subject to discuss various possibilities, read it again and repeated that it was a nonsense problem which had no solution.

Scoring. Each subject was tested two weeks after the initial presentation, being asked to recall as much as he could of each problem. Five points were awarded for each case in which the gist of the problem was reported without any prompting or specific questioning. Up to five marks were also allotted for the recall of five pre-determined factual but not crucial details. If these were not mentioned in the subject's original account he was then directly questioned about them. There was thus a total possible score of ten marks obtainable for each problem.

(It will be noted that the question of whether subjects succeeded in solving Problems A and B during the fortnight interval has been disregarded deliberately for the present purpose, which is concerned with recall and not with problem-solving ability. It is important to observe, however, that no subject solved either of these problems at the first session.)

Subjects. As the tests to be described are not ones which figure in standard intelligence tests, it was possible to ensure even 'tighter' matching of controls by using IQ. The experimental group consisted of ten patients with a primary psychiatric classification of anankastic personality disorder (four of whom had figured amongst the earlier group of 30). Each was matched with a control patient suffering from some other type of personality disorder, in terms of age, sex and IQ (WAIS Full Scale).

Results. Table I presents the mean recall score for each group on 'Required rehearsal' (Problems A and B combined), and on 'Non-required rehearsal' (Problems C and D combined) with the result of the t-test for related measures in each case.

TABLE I

Mean group recall scores—required and non-required rehearsal

Tests	Anankasts	Controls	t	P
A+B	12·7	12·9	0·19	<0·90
C+D	13·3	10·7	2·30	<0·05

Table II presents the numbers of subjects in each group who gained higher scores for recall on Problems A+B than on C+D, compared with those whose scores for C+D were equal or superior to A+B.

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press

TABLE II
Distribution of subjects according to scores on problems A+B versus C+D

	Recall scores on	
	A+B > C+D	C+D ≥ A+B
Anankasts	2	8
Controls	7	3

Fisher-Yates test: P = 0·035 (one-tail test).

Test 4. Personal reminiscence

The present writer was unable to devise an experimental method of assessing level of redintegration. But it seems likely that this is not amenable to objectivization or quantification, for by definition this personalized quality is highly subjective. It was decided, therefore, to investigate subjects' phenomenological reports.

The subjects were the ten matched pairs described above. They were first asked to describe some event from their last holiday. They were then asked to try to describe the experience of recollection itself. As might have been predicted, all the subjects found the second half of the task more difficult, and three of them found it almost impossible either to understand what was being required of them, or to find words to describe the experience. But one highly suggestive finding did emerge.

Of the eight controls who were able to offer coherent descriptions, all made reference to imagery in various modalities. They all adduced visual imagery, using terms such as 'a picture in my mind', 'mental pictures' or 'seeing it in my head'. But auditory, tactile and kinaesthetic imagery also received mention, or were implied. Typical responses were:

'It's very real somehow—if I close my eyes I can almost *see* the main square . . .'
'I can almost *feel* the sun on my back . . .'
'I can imagine bits of it as though it was yesterday. Not all of it, and it gets shuffled up. But little bits—things we did as well as places we went to . . .'
'It's all very bright and clear to me. Tony and I *running* along the beach . . .'

Not surprisingly, the anankasts tended to take the tasks more seriously than their controls; their reports were longer and more detailed. The nine who were able to offer descriptions of the recall experience did so at considerable length. They reported visual imagery in terms which suggested that it was even richer and more immediate than that of the controls. The difference was that it was reported as though from the viewpoint of a non-participant observer. Whereas the controls described their imagery as seen by them originally, the anankasts' imagery often included themselves as seen from outside. Furthermore, none of them reported imagery in any but the visual modality.

'If I concentrate, I can imagine it quite clearly. As though I'm watching a bit of film . . .'
'I can see us coming out of the hotel . . .'
'I can see us all on the deck . . . But it may be with looking at the photographs since . . .'
'I try to get a picture of it, *as though I am watching it* . . .'

Subjects were then asked to think of some daily activity or occurrence of a routine nature, to attempt to recall the previous day's episode, and to describe the way they recalled it. On this task another significant difference between the groups emerged. The controls all selected some mundane activity, such as dressing, eating breakfast or preparing for bed. They could recall the previous day's example specifically only by having recourse to habit patterns and a logical process of elimination, e.g.:

'I must have sat facing the window, because I always do . . .'
'I know I dropped my razor, but that couldn't have been yesterday because the injector was empty, so I didn't change the blade . . .'

Once they had thus constructed a model of the previous day's experience, they tended to describe the recall experience as being similar (but less vivid) to that of the first task. They stressed, however, that they could not be sure whether the experience had reference to the previous day or to any other day.

The anankasts selected similar routine activities or chores. In five cases these turned out to be the objects of excessive checking. They built

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press

up their recollections of the previous day's occurrences in the same way as the controls, though expressing even more dubiety. Although hedged around with qualifications and second thoughts, their descriptions had recourse, as before, to visual imagery only. But in every case they expressed uneasiness, not as to what they were recalling, but about the quality of the recollection itself.

'I remember switching them off, in a way, but it's all fuzzy . . .'

'It's always the same. I *know* I did it, so I must be remembering. But I'm not sure about the memory . . .'

'Somehow I can't make myself *sure* that I've put them away. I know I must have done, but I can only make the memory real by going and checking . . .'

'I think I remember all right. But it's blurry somehow—*as though I'm not there* . . .'

'I can remember it happening. I just can't convince myself that it's *me* in the memory . . .'

Discussion

In the first test, that of long-term recall of general factual information, the anankasts failed to demonstrate any superiority over their controls. Indeed, although the difference does not achieve a satisfactory level of statistical significance, the trend is in the opposite direction from that predicted by clinical observations.

On the Digit Span test, the anankasts were superior to their controls at a high level of statistical significance. This result supports both the general prediction drawn from the clinical observations and that drawn from the writer's hypothesis. It will be recalled, however, that the rationale for the second prediction is very different from that of the first. The one drawn from the clinical observations presumes that anankasts have an all-round superiority in tasks involving recall; the one drawn from the writer's hypothesis is based on the argument that anankasts will show superiority on this test, *not* because it is a test of recall, but because it demands concentration, being pre-eminently a test of *attention*.

On the anecdotal 'Problems' test, performances on Problems A and B (where rehearsal was encouraged) confirm the findings of the first test. There is no significant difference between the two groups on recall scores. But on Problems C and D, where rehearsal was not encouraged and indeed was indicated to be not only unnecessary but pointless, the anankasts' recall scores were significantly higher than those of their controls. This supports the prediction drawn from the writer's hypothesis, that anankasts will tend to 'rehearse' ambiguous material, even when this is not indicated or necessary.

Findings from the fourth test may be interpreted as offering phenomenological support for the third prediction drawn from the writer's hypothesis. The anankasts' reports strongly suggested that their redintegration was incomplete. On tasks involving personal reminiscence, their recall was vivid and detailed but lacked personalization relative to that of their controls. They used only visual imagery and tended to describe their experiences, however richly, as though observed from outside. This attenuated redintegration was reflected in their doubts about their recollections, which focused not upon the content of what was recalled but upon the quality of the recalling itself.

As expected, these findings do not tell us whether anankasts display superior (or inferior) memories. On the contrary, they emphasize that no such global generalization can be made. What they do suggest, in short, is that anankasts engage in too much rehearsal and suffer from too little redintegration. Their heightened attention and over-rehearsal may well account for their well-known attention to detail and their circumstantiality. Their attenuated redintegration may well account in part for such classical phenomena as doubts, checking and rumination.

At least one further observation is suggested by the present findings. Weak redintegration parallels, in the mnemonic sphere, the experience of depersonalization. Such authorities as Mayer-Gross, Slater and Roth (1960) have observed the association between depersonalization and obsessional personality. Depersonalization seems to be most evident in such personalities in the context of depressive illness, whereas it is rarely reported in cases of obsessional personality displaying gross obsessional-compulsive symptoms (Sedman and Reed,

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press

1963). The suggestive implications of this merit further study. It is at least possible that weak redintegration and depersonalization are accentuated by depression, but masked during the development of a severe obsessional illness.

References

BARTLETT, F. C. (1932) *Remembering*. Cambridge: University Press.

BARUCCI, M. (1954) Analisi e classificazione dei fenomeni di cosidetta ipermnesia. *Riv. Pat. nerv. e ment.*, 75, 663–75.

GLIXMAN, A. F. (1949) Recall of completed and incompleted activities under varying degrees of stress. *J. exp. Psychol.*, 39, 281–95.

JANET, P. (1903) *Les obsessions et la psychasthénie*. Paris: Alcan.

MAYER-GROSS, W., SLATER, E. & ROTH, M. (1960) *Clinical Psychiatry*. 2nd edn. London: Cassell.

PETRILOWITSCH, N. (1960) *Abnorme Persönlichkeiten*. Basel: Karger.

RAPAPORT, D. (1946) *Diagnostic Psychological Testing*. Vol I. Chicago: Year Book.

REED, G. F. (1968) Some formal qualities of obsessional thinking. *Psychiat. clin.*, 1, 382–92.

—— (1972) *The Psychology of Anomalous Experience: a Cognitive Approach*. London: Hutchinson.

ROZENZWEIG, S. (1943) An experimental study of 'Repression'. *J. exp. Psychol.*, 32, 64–74.

SCHNEIDER, K. (1958) *Psychopathic Personalities*. London: Cassell.

—— (1959) *Clinical Psychopathology*. New York: Grune and Stratton.

SEDMAN, G. & REED, G. F. (1963) Depersonalization phenomena in obsessional personalities and in depression. *Brit. J. Psychiat.*, 109, 376–9.

ZEIGARNIK, B. (1927) Über das Behalten von erledigten und unerledigten Handlungen. *Psychol. Forschung*, 9, 1–85.

APPENDIX

Problem A

'At six am one Monday, an astronomer leaves the hotel at the foot of a 2,500 ft mountain and climbs the track to his observatory on the peak. The track is circuitous, rocky and very uneven in gradient. At the same time on the following Monday he leaves the observatory and descends to the hotel. The descent, of course, is much easier and faster than the ascent. Demonstrate that there must be a particular point on the track that the astronomer passes at precisely the same time coming down on the second Monday as he did going up a week before.'

Problem B

'You are driving your jeep through Tibet, in search of an obscure monastery. This interests you because it is the home of two communities of monks. One community is trained from infancy to speak nothing but the truth, whilst the other is similarly trained to tell the exact opposite of the truth. They are distinguishable by their habits—one being fawn, the other orange. Unfortunately, you can't remember which is which. You arrive at a T-junction and do not know which way to turn. Standing at the junction are two monks, one in fawn robes, the other in orange. You are allowed to ask either of the two a single question to determine whether you should turn right or left. What is it?'

Problem C

'The governor of a prison in Alabama summoned three good conduct prisoners to his office. "Men," he said, "Today is my 54th birthday. To celebrate, I intend to arrange a free pardon for one of you guys. I've chosen you because you are all trusties of exactly equal intelligence. I have here eight cards, three black, three green and two white. You are going to face the wall while I pin a card on each of your backs. The other five cards go back in the drawer. Then each of you can see what cards the other two are wearing. The man who first works out what colour his own card must be, and can explain why, wins his pardon." This is done, the governor pinning a green card on each man's back. The trusties are not allowed to communicate with each other, and there is no way in which they can see their own backs. What does the winner say?'

Problem D

'A luxury steam yacht is wrecked in the North Pacific. The owner, a millionaire from Boston, is cast up on an island inhabited by natives who are cowardly sex maniacs. With him are his attractive twin sixteen-year-old daughters. The natives are afraid of him, but will not give him any food. On a second island, across a shark-infested channel 120 yards wide, are cast up his wife and their seven-year-old son. Unfortunately, this second island is inhabited by cowardly starving cannibals who, but for the fact that the wife has a shot-gun, would eat her and her son. On yet a third island is cast up the ship's engineer, with ample tinned food and an inflatable one-man dinghy. What can be done?'

Graham F. Reed, M.A., M.Litt., Ph.D., *Professor of Psychology, York University, Toronto, Canada*

(*Received 10 March; revised 13 May 1976*)

https://doi.org/10.1192/bjp.130.2.177 Published online by Cambridge University Press