

## Correspondence

### PERSONALITY AS A DETERMINANT OF THE FORM OF ALCOHOLISM

DEAR SIR,

I read with interest Dr. Walton's paper on Alcoholism (*Journal*, June, 1968, pp. 761-766). I feel, however, that it is necessary to point out that from the psychological test data presented there is little evidence to support the hypothesis of the two types of alcoholic personality. My evidence for this conclusion is detailed below:

(i) *The 16 P.F.*

The profiles of the two alcoholic types (Inability-to-Abstain, N = 22, and Loss-of-Control, N = 16) correlated together at a highly significant level of confidence ( $\rho = 0.869$ ,  $p < 0.01$ , corrected for tied ranks). This result strongly suggests that these two profiles are practically identical and that to talk of two types of alcoholic on the basis of these data is meaningless, particularly in view of the very small numbers involved.

If the total alcoholic group (N = 38) is compared to McAllister's (1968) 16 P.F. profile data using Spearman's rho (corrected for tied ranks where necessary), and the matrix so produced (see Table I) is subjected to linkage analysis (McQuitty, 1957) and elementary factor analysis (McQuitty, 1961), some very interesting results are produced. The alcoholic sample, in fact, proves to be a very typical group of psychiatric patients falling between the neurotics and the integrated psychotics on the Foulds continuum of illness. The Reference Factor loadings are:

Normals	..	..	..	..	-0.445*
Per. Dis.	..	..	..	..	0.360
Neurotics	..	..	..	..	0.443*
Alcoholics	..	..	..	..	1.000†
Int. Psych.	..	..	..	..	0.475*
Non. Int. Psych.	..	..	..	..	0.372

\*  $p < 0.05$ . †  $p < 0.01$ .

Consequently, while there may be an alcoholic profile, it is more likely that this profile represents a "mixed bag" of psychiatric profiles. This is further supported by the fact that the alcoholic 16 P.F. profile given in the paper correlates very significantly ( $\rho = 0.606$ ,  $p < 0.01$ ) with the 16 P.F. profile of a sample of 85 unselected admission psychiatric patients from the Crichton Royal.

At the second order factor level there were no statistically significant differences between the two types of alcoholic. Therefore the loss-of-control alcoholic cannot be said to be more extraverted than the inability-to-abstain alcoholic, as the differences in score reported could well be due to chance variations.

(ii) *The Hostility Scales*

No statistically significant results are reported when the two types of alcoholics are compared, so that statements such as "loss-of-control addicts . . . are considerably more hostile than inability-to-abstain addicts" are at the least misleading. This is particularly true in view of the small size of the samples used in the study. With small numbers it is very unwise to base any conclusion on non-significant results, as the author has done in the present paper.

TABLE I  
*Correlation Matrix of McAllister and Walton's 16 P.F. Profiles*

	Per. Dis.	Neurotics	Alcoholics	Integrated Psychotics	Non-integrated Psychotics
Normals	.. .. 0.118	-0.472*	-0.445*	-0.593*	-0.538*
Per. Dis.	.. .. X	0.145	0.360	-0.185	-0.207
Neurotics	.. ..	X	0.443*	0.557*	0.404
Alcoholics	.. ..		X	0.475	-0.372
Integrated psychotics	.. ..			X	0.837†

\*  $p < 0.05$ . †  $p < 0.01$ .

(iii) *The Symptom-Sign Inventory*

The results from the two scales drawn from the S.-S.I. (Foulds, 1965) do offer evidence of differences between the two groups of alcoholic patients. However, within the Foulds' system of conceptualization a symptomatic measure such as the S.-S.I. is viewed as being comparatively independent of personality structure and thus offers little supportive evidence for the author's basic hypothesis concerning personality and type of alcoholism.

(iv) *Conclusions*

The two types of alcoholism may well exist as clinical entities to the practising psychiatrist, and from the two S.-S.I. scales there is evidence that they affirm different patterns of symptomatology. There would, however, appear to be little or no evidence that these two types of alcoholic differ in personality structure in general or in hostility in particular. A total misclassification rate of 1 in 6 would appear excessively high if these two types of alcoholic are as clearly defined as the author suggests. In the present paper few of the author's conclusions are substantiated by the evidence he presents.

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## REFERENCES

- FOULDS, G. A. (1965). *Personality and Personal Illness*. London: Tavistock.  
 McALLISTER, J. (1968). *Brit. J. Psychiat.*, **114**, 53-56.  
 McQUITTY, L. L. (1957). *Educ. psychol. Measmt.*, **17**, 207-229.  
 — (1961). *Psychol. Repts.*, **9**, 71-78.

DEAR SIR,

I am grateful to Mr. Kear-Colwell for his interest in my paper. He has misunderstood it, however, at many points, which unfortunately vitiates his comment.

1. *The 16 P.F.*

(i) *First-order Factors*. He suggests that I "talk of two types of alcoholic" on the basis of two 16 P.F. profiles. He misunderstands the method used. The two types of alcoholic are clinically determined, the criteria for assigning a patient to either syndrome being defined on p. 761, and the procedure of assignment on p. 762.

I reported the difference in 16 P.F. profile briefly because the report as a whole was brief. Mr. A. Philip had, in fact, calculated profile coefficients for the two types of drinking syndrome (Table 1).

We knew that inability-to-abstain drinkers have similarities with both neurotics and patients with personality disorder, while loss-of-control addicts in 16 P.F. profile were more like neurotics.

TABLE 1

*Comparison of Profile Coefficients of Alcoholics' First Order 16 P.F. Scores with Scores of McAllister's (1) Three Criterion Groups*

	Personality		
	Normals	Disorders	Neurotics
Inability-to-abstain			
alcoholics .. ..	.62	.76	.72
Loss-of-control alcoholics	.41	.50	.67

The conclusion Mr. Kear-Colwell arrives at after his own statistical analysis, that the total alcoholic group "proves" to be a typical group of psychiatric patients, is already stated in the paper. I say that the alcoholics differ from McAllister's patients with neurosis and personality disorder only on two of the 16 first-order factors (p. 763).

(ii) *Second-order Factors*. I stated myself (p. 764) that the difference in Extraversion score of the two types of alcoholic was not statistically significant. This is synonymous with "could well be due to chance variations".

There is an *erratum*, not noted by Mr. Kear-Colwell, which I am pleased he gives me the opportunity to correct. Loss-of-control addicts are (non-significantly) somewhat *less* extraverted.

2. *The Hostility Scale Finding*

Mr. Kear-Colwell says I have not reported statistically significant differences between the two types of alcoholic. What I do report is stated plainly: "an analysis of variance demonstrates a difference that almost approaches significance at the 5 per cent. level" (p. 765). I elect to pay further attention to this finding, advisedly. When the Hostility Scale scores of the 31 male alcoholics are separately analysed, the inability-to-abstain addicts have a mean score of 17.70, standard deviation 8.11; the loss-of-control addicts have a mean score of 24.91, standard deviation 8.11. The difference is statistically significant ( $t = 2.41$ ;  $p < .025$ ).

3. *The Symptom-Sign Inventory*

Mr. Kear-Colwell errs in his reading of the finding from "the two scales drawn from the Symptom-Sign Inventory." He says these scales offer evidences of differences between the two types of alcoholics. They do not. I show (p. 764) that one of them, the Personal Illness scale, does not differentiate between the two alcoholic syndromes.

He then essays an argument that the scale which does differentiate between the two types of alcoholic, the Personality Disorder Scale, is not a measure of