is only comparable if it is based on samples of constant size in number of words, i.e. where the number of tokens, that is the divisor in the ratio, is constant. This has been most often chosen as 100. As the divisor increases so the value of T.T.R. inevitably declines, the number of types being approximately related in a *logarithmic* fashion to the number of tokens in any sample (Herdan, 1960). The figures quoted for Critchley's subjects were 0·65 and 0·26. Consulting the original paper (Critchley, 1964), the actual ratios can be seen to be 54/79 and 331/1,241 respectively. I have recomputed these as log type/log token. The values become 0·90 and 0·94 respectively, which can be seen to be not very dissimilar. The other values quoted by Maher in his table are based on studies where 100 has been chosen as the sample size. Other studies have chosen different sizes of tokens, e.g. 900 (Salzinger, Portnoy and Feldman, 1964); 25 (Feldstein and Jaffe, 1962); 200 (Silverman, *in preparation*). Sample size is no mere arbitrary consideration, as Salzinger *et al.* found rank orders in matched pairs for T.T.R's considerably different between 100 and 900 word sample sizes (Salzinger, Portnoy and Feldman, 1964).

The second point concerns evidence for the 'immediacy hypothesis'. In point of fact it can be argued that Salzinger's results (Salzinger, Portnoy, Pisoni and Feldman, 1970) show, at least for 'low guessability' words, that 'distant' context *is* of greater benefit, *proportionately*, in the prediction of words from schizophrenic utterances over normals. Salzinger ignores the baseline predictabilities on going from contexts of 4 to 8 words, but when this is regarded from the viewpoint of *proportionality* the results become consistent with my own observations comparing 4th and 5th word deletion patterns with Cloze procedure (Silverman, *in press*). This supports the view that *inappropriate repetition* is of considerable significance as the encoding difficulty in schizophrenic subjects, as is also suggested in Maher's publication.

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Dear Sir,

I should like to call attention to what seems to me to be a basic weakness in Dr. Brendan Maher's erudite and intriguing paper on the 'Language of Schizophrenia'. His summary and analysis of research on differences in speech patterns between schizophrenic patients and normal controls is useful and interesting, though the findings are hardly sensational, i.e. that schizophrenic speech is less predictable than normal speech and far more likely to include tangential (my word, not his) associations. He points out, correctly I am sure, that normal speech (except when barriers are deliberately let down, as in psychoanalysis or word association tests) is one in which there is continuous inhibition of distracting associations, and that schizophrenic speech shows far less inhibition of such associational intrusions.

It is with his hypothesis as to the reasons for the difference that he seems to have become so obsessed with attending to the mechanism that he quite forgets the individual who is speaking. His hypothesis is that the 'inability' to inhibit 'irrelevant' associations is due to deficiency of attention, which he believes, for reasons that are not made clear, to be biologically mediated. The examples he gives of schizophrenic speech are then interpreted as if the patient wanted to say what he, the researcher, would think reasonable. One of his examples starts as follows:

'See the Committee about me coming home for Easter my twenty fourth birthday. I hope all is well at home, how is Father getting on. Never mind, there is hope, heaven will come, time heals all wounds . . .'.

He then goes on to speculate that the writer wanted only to express his wish to go home for his birthday and that the rest were irrelevant intrusions that he did not know how to inhibit. It does not occur to him that the writer might not have wished to say what is expected and conventional. He is apparently unaware that the ambivalence which the normal person generally represses is near the surface in the schizophrenic; and that his kind of communication, with associational patterns characteristic of dreams or of waking fantasy, is admirably designed to express such ambivalence. His speech is sometimes hard to understand because he speaks in a kind of shorthand,

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sometimes symbolically and sometimes with connecting bits left out.

If we look at the above letter with a wish to understand its meaning we realize that it is at least as likely that instead of irrelevant intrusions there are very relevant omissions. One cannot of course, interpret the letter without knowing the writer, but a possible version might be like this, with my suggested omissions in italics:

'See the committee (*I know all the red tape involved and that you'd never make such a decision just because I asked you to, so consult everyone who must be consulted*) about my coming home for Easter for my 24th birthday. I hope all is well at home. How is Father getting on? (*We all know that I don't give a damn how father is getting on*). Never mind, there is hope. (*Perhaps some day even Father will act like a decent human being*). Heaven will come. (*It would certainly have to be a miracle*). Time heals all wounds. (*Perhaps even Father and I might forgive each other in time*).

I do not, of course, claim that this is anything like the proper interpretation for this particular letter. One can only make informed guesses if one knows the patient; and can only discover whether one's guess is correct by putting it to the patient.

That Dr. Maher has listened more to speech patterns than to the meaning of speech seems confirmed by his astonishing assertion that schizophrenics make puns which appear as puns only to the listener, that the patient has no awareness of the double meanings of the words he uses. I think this would be disputed by anyone who has dealt on a one-to-one, human basis with schizophrenics. The joke may be a bitter one, but it is there, part of the shorthand communication which the more accessible patient is usually glad to have someone understand. Let me give three examples of such communication.

(1) A man of about thirty, a chronic schizophrenic since age twenty, had come to see me shortly after an acute psychotic episode. He had just left and was standing in the waiting room when he was approached by a patient coming in. The second man, a short-tempered aggressive character told me, a little later what had happened. 'I very nearly slugged that guy.' He explained that, realizing he was early for his appointment, he had taken out a cigarette only to discover after going through his pockets that he had no match. He turned to the other man and said, 'Do you have a match?' 'And you know what he did, he smiled this blank smile and said, "Yes, I have a match," and just stood there. He must have seen I was about to slug him because, just in time, he put his hand in his pocket, brought out a box of matches and said, "Did you want one"?'

(2) A patient on a long-stay disturbed ward in a California hospital had been mute for some time. He did nothing on the ward, and for some time had refused to see his very demanding and domineering mother. Nonetheless he was included in the group taken into town to buy cards for Mother's Day. (May I say parenthetically that in the United States it is possible to buy cards suitable for almost any relationship and any occasion or non-occasion). He went along passively as usual. But when they reached the store he surprised everyone by actually looking through the cards with interest. He even took the initiative in finding one, paying for it, addressing the envelope, stamping and posting it. When his mother, who was my patient, received it, her upset state left no doubt that she had understood the cryptic message from her son. The card read:

'To someone who has been almost a mother to me.'

My third example was another patient on the same ward. He never passed the door of the Director's office, where a sign read PLEASE KNOCK, without going up to it courteously and, very loudly, knocking.

No matter how helpful the techniques of the linguist and the 'communication engineer' one cannot, in my opinion separate the speech from the speaker. In schizophrenic speech, especially, one must listen for what is implicit as well as for what is explicit; and to do this one must be attentive not only to the words he uses, but to the patient himself.

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RESULTS IN A THERAPEUTIC COMMUNITY

DEAR SIR,

In their paper 'Results in a Therapeutic Community' (*Journal*, January 1972, vol. 20, p. 51) Myers and Clark are at pains to distinguish between the therapeutic community in a broad sense: 'a humane, liberal approach marked by full occupation, open doors, active rehabilitation programmes and increased community involvement' and the therapeutic community proper: 'concentrating on continual analysis of events, community meetings, role examination and blurring, flattening of the authority pyramid etc.'

It is, therefore, difficult to understand why they chose as the control ward, in their investigation of the efficacy of the second type of organization, a ward which violated most of the precepts of the first. Their 'traditional' ward seems to have been so only in the sense that it enshrined errors of management and staffing which have a regrettably long history.

The authors' results are important, for as long as such wards continue to exist their failings need to be re-emphasized; but they provide no information on

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