INFORMED and constructive criticism is always to be welcomed. However, we feel obliged to comment on a number of points raised by Mr. Gillman in his extended examination of our paper.

Our inclusion of spoilt votes does create a limited amount of "noise", but cannot be said to confuse the situation or to obscure a really simple pattern. Spoilt votes, like "non-votes", are important parts of any electoral decision, and we included in our study indicators of spoilage and of voter turnout so as not to exclude any potentially valuable information. In fact, spoilt votes showed no significant pattern between 1969 and 1972, a fact which is in itself of interest, particularly for the contrast it affords with the extreme regularities we found elsewhere, and also because it seems to reflect the absence of any widespread expression of political alienation—this kind of sentiment being one possible explanation for widespread and systematic vote spoilage.

Although Mr. Gillman's exclusion of this part of the voting pattern renders his analysis not directly comparable with ours, we would like to make some further observations on his study and the conclusions he draws from it concerning ours. The successful use of correlation and regression analysis indeed requires that one's data be Gaussian or normally distributed. Our experience was that both the Labour and "Others" variables were highly skewed because of large regional variations present. We, therefore, transformed both variables, in accordance with standard statistical practice. This, together with our inclusion of spoilt votes, would account for Mr. Gillman's belief that an "error" occurs in our calculations involving these categories of voters. For the same reasons, his expectation that the combined "Labour and Others" variable should account for the same proportion of the variation as the "FF and FG" grouping is without foundation.

One would, perhaps, ask whether Mr. Gillman transformed all non-normal data in view of the fact that he produces a correlation coefficient of $-0.831$ between the "Yes"
vote and "Labour and Others", particularly as our preliminary analysis recorded a correlation coefficient of $-0.815$ between Labour alone and the "Yes" vote, using an untransformed Labour variable.

We would also seriously question the wisdom of Mr Gillman's decision to use a combined "Labour and Others" variable in preference to Labour on its own for several reasons, the most important being the highly amorphous and residual character of the "Others" grouping as defined in our paper. The "Others" grouping does not correlate significantly with any other variable. Furthermore, it is scarcely evident that the pattern of second preferences justifies lumping "Others" together with Labour. Second preferences constitute very different electoral decisions from first preferences. Finally, Labour alone is a far better predictor than the combined variable, as Table 1 in our article demonstrates.

The distinction between "swing" and consistency is, indeed, an important one. At the risk of pedantry, we would like to point out that Mr Gillman appears to assume that only Labour voters and "Other" voters voted "No" in the EEC Referendum, when he compares the "means for 'Labour and Others' in 1969, and the 1972 'No' vote, i.e., 19-69 per cent–16-70 per cent", since these figures represent the mean of "Labour and Others" in 1969, and of the "No" vote in 1972. If this is valid, why has Mr Gillman found a correlation coefficient of only $-0.831$ between the "Yes" vote and the 1969 "Labour and Others" vote? This, in fact, only explains about 69 per cent of the variance between these two variables, and results in over 30 per cent being unexplained. It should be also noted that for certain cases, normality is required for the Student-Fisher $t$-test [1].

Our observation concerning party cohesion is a conclusion rather than a hypothesis, and one that may not be sustained by Mr. Gillman's correlations, although they do tend to support it. It is certainly supported by our results.

Two minor points: Mr Gillman does not state levels of significance in several instances. Also, in his third paragraph he refers to the "multiple correlation coefficient: between EEC 'Yes' and 1969 FF, FG". Is this in fact a correlation of FF plus FG, or are there two separate variables, FF and FG?

In view of these uncertainties, we would seriously question his assertion that our conclusions cannot be sustained, particularly in view of the fact that the correlations we noted were almost all significant at the 5 per cent level, and that half of them attained the 1 per cent level. It is noteworthy that the only two that failed to attain the 5 per cent level related to "Others"; and we fail to see how "Labour and Others" could possibly explain more variance than Labour singly.

Mr Gillman's attempt to relate the 1969 voting pattern to socio-economic data is indeed interesting. It is not clear from his text how he reconciled the census data with constituency boundaries, particularly in view of the fact that recent constituency revisions have left the electoral map with many constituencies which do not correspond to standard administrative boundaries. One would need to be clear about this before one could comment usefully on the correlations he reports between votes and socio-economic indicators.

A more general point concerning this kind of exercise is that it is not clear why income should be selected as the most important predictor of voting behaviour. Voting behaviour is normally associated with a complex of factors, of which income is only one, some others being occupation, trade union membership, house-ownership, geographical location and sex [2]. Income may be a rather poor predictor in Ireland, because of certain historical and sociological circumstances peculiar to this country [3]. In view of
this, it is scarcely surprising that Mr Gillman had little success in using the male/female ratio in his attempt to explain more of the variance between the 1969 and 1972 polls.

Mr Gillman's last sentence is in accordance with the general tenor of our article; but it implies by its phrasing that the three party groupings are required to account for the 72 per cent of variance he mentions. Using our figures, it can be seen that Labour on its own "explains" about 64 per cent of the "Yes" variance, and about 65 per cent of the "No" variance; that FF plus FG account for 71 per cent of the variance in the "No" vote, and that "Labour and Others" accounts for a mere 26 per cent or so of the "No" variation.

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REFERENCES