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The stated objective of the paper is to help interpret chi-square in situations like those of Tables 1 and 2. A closer look at the data is sometimes helpful, and I claim that the following analysis of Table 2 is far more informative than what is presented in Sections 4 and 5.

The first step is to calculate a few averages, taking ≥ 4 children to mean 4 exactly.

Yearly income, 1000 Kr.	0-1	1-2	2-3	3+
Average no. of children	0.89	0.94	0.76	0.60

Thus family sizes below an income of 2000 Kr. are appreciably larger than above 2000 Kr. A Poisson distribution appears to fit the frequency ratios for each income category quite well, provided that the ratios for 0 and 1 child are combined. The zero class is smaller than a Poisson distribution predicts.

This analysis takes only a short time using a pocket calculator, and involves nothing as sophisticated as log-linear modelling, correspondence analysis, or effective sample size. The findings prompt speculation; but at this stage I would be inclined to consult a friendly demographer. He or she could doubtless shed light on the relationship between family size and income in Sweden fifty years ago.

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The authors are to be congratulated on a very interesting paper. In particular, I appreciated the developments of intermediate models for two-way tables and other exponential families. My discussion will concern the choice of measure for the discrepancy between model and data.

As noted by the authors (see Section 9), one such measure is the statistical redundancy, proposed by P. Martin-Löf. This is a general concept (providing a measure of discrepancy on a model-independent scale for discrete exponential families), it has a clear interpretation (in the language of information theory), and it is easily calculated (as an entropy-normed version of S). Among other possible measures is S itself.

In this light, I shall consider the four alternatives suggested in the paper. All these measures are also functions of the basic statistic $S = \chi^2/n$. Above that, their forms and interpretations appear not to bear any particular relation to the redundancy.

(1) *The significance level of the volume test.* This measure appears artificial and does not appeal to me, since I cannot imagine a phenomenon in reality