FREDERICK MOSTELLER AND DAVID L. WALLACE, *Inference and Disputed Authorship: The Federalist*, Addison-Wesley Publishing Company, Inc., Reading, 1964. xv + 287 pp. $12.50.

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Many people may approach this book with the feeling: "If I can wade through all this, I'll know at last whether this Bayesian movement makes sense in practice." In fact the book is so "practical" that it is hard to read, if like this reviewer, one has zero interest in who wrote the twelve disputed Federalist papers in particular and authorship problems in general.

This is as it should be. Practical statistics requires a great deal of reliable and intelligent labor and the problem and its setting ought to determine the solution more than any academic theories of "inference." Different questions, different fields of application allow different methods and more (or less) convincing answers. So there is surely no one method of statistical inference. The subject might be better classified under problems than philosophies of inference. Certainly it is silly to divide statisticians into Bayesians and non-Bayesians! Fisher encouraged statisticians to feel that their role is a noble one. It seems healthier to believe statistics is essential over an ever widening field but, by its very nature, a humble craft. If this is accepted there is less point in seeking the ultimate in any given view. It is worth remarking, parenthetically, that Fisher himself felt that Neyman-Pearson theory was probably satisfactory for "trade"(!), i.e., he realized that the different "systems of inference" were in fact simply the appropriate methods for different situations. Anyway, Mosteller and Wallace are not doctrinaires. They provide Bayesian and non-Bayesian analyses, robust and less robust.

Given then we are dealing with the special classification or discrimination problem, "who actually wrote *each* of the disputed papers," what statistical methods leap to mind? Let x be some vector of word frequencies or whatever data we are given, with density $f_1(x)$ for Hamilton, $f_2(x)$ for Madison, and likelihood ratio $f_1(x)/f_2(x)$. Put in prior probabilities π_1 and π_2 to get $\pi_1 f_1/\pi_2 f_2$, check in Rao's book for details and the job is done. While that is how much statistical consulting *is* done, Mosteller and Wallace are simultaneously the author-seekers, and distinguished statisticians concerned to show us, in all its dreadful details, how to do the best possible investigation their resources permit.

The choice of X, i.e., *the choice of sample space* is the first vital task. Statisticians normally leave that to customers but there are many instances to suggest that this is dangerous. For example, the following two instances of this have