

Finally, a query: In DFb, Diaconis and Freedman use the past tense in describing themselves as subjectivist and classical Bayesians, respectively. How do they describe themselves now?

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The mathematical beauty and tractability of the Dirichlet prior render it almost irresistibly seductive. But beware! Rocks and shipwreck await the poor Bayesian navigator captivated by its siren song. Brown (1976) shone a little light on these murky waters. Now Diaconis and Freedman deserve the gratitude of all explorers for illuminating some of the more treacherous obstacles to a smooth passage.

Beyond these specific warnings, what broader morals are to be drawn? In view of the fact that, generically, the pair (θ, μ) is inconsistent, it is not really surprising that the authors can find such a pair. What I find far more surprising is the existence of priors μ (e.g., tail-free) which *are* consistent at each θ . Perhaps this is only possible because of the rather weak definition of consistency employed. Nevertheless, it is an important property, and one which demands further characterization.

Choosing a prior for an infinite-dimensional parameter space is always going to be problematical, and any accessible prop (such as consideration of imaginary results) should be grabbed. For example, any two different priors are, generically, mutually singular, and so involve incompatible world views of what is even possible. This can be expected to lead to diverging inferences from the data. The mere possibility of consistency, in the problem considered, is therefore an unexpected bonus.