

PROF. D. V. LINDLEY
2 PERITON LANE
MINEHEAD
SOMERSET
TA24 8AQ
TEL: (0643)-5189

24 July 1984

Dear Andre,

As promised, I wrote to Cedric Smith and Oscar Kempton about you and received encouraging replies in both cases. As is usual with Cedric, an extremely helpful person, he wrote back with suggestions for you (I had mentioned penetrance). The topic of multipoint linkage is not familiar to me and his letter is enclosed in the hope that it will be useful to you. Do write to either or both of them if you feel it would be at all useful.

I hope all is well with you and your family. Joan and I often recall that pleasant day out at your house, especially when we are gardening in our different conditions.

Best wishes,

Dennis.

PROF. D. V. LINDLEY
2 PERITON LANE
MINEHEAD
SOMERSET
TA24 8AQ
TEL: (0643) 705 189

12 May 1990

Dear André,

Congratulations on the appointment in Lyon. I wish that it had been in Britain but universities and research institutions here are experiencing bad times under this government. I do admire your ability to face another foreign culture and a new language; the prospect would daunt me. We have largely given up extensive travel and have settled down to a quiet life here, spending a lot of time gardening. We remember yours with delight. How is the family and what about the fine dog, Petra was it? And we listened to Berio. Was it really almost seven years ago.

Your paper on meta-analysis is really excellent. The Bayesian paradigm has been performed sensibly and correctly. The demonstration of its effectiveness is striking. This is a really nice piece of work. I would have used a slightly different model which differs from yours in one important respect in that it does not use the sharp, null hypothesis that all the deltas are equal. Sharp hypotheses can lead to strange results and my preference is to avoid them unless the practical problem tells me otherwise. My guess here is that no one would really believe the null. The alternative is to suppose them to be normal with mean and variance that can be estimated from the data. Another idea is to use log-odds in preference to probabilities θ because they are more nearly normally distributed. So the model would

have the binomial likelihoods as yours but reparameterized in terms of

$\rho_t^{(i)} = \log(\theta_t^{(i)} / (1 - \theta_t^{(i)}))$ and $\rho_c^{(i)}$. Then $\rho_t^{(i)} - \rho_c^{(i)}$ are i.i.d

$N(\mu, \tau^2)$ and $\rho_c^{(i)}$ is $N(\mu_0, \tau_0^2)$ - or better, they could have a

bivariate normal. Then τ^2 would show how the treatments differed

from trial to trial and μ would provide the overall assessment. I have not any reason to think this is better than yours. To find out would require time and computing facilities.

I hope that we shall meet again soon. There is to be a meeting on Bayesian Statistics in Valencia from 15-20 April 1991. I hope that you will be able to come especially as we need applied Bayesians. You can get details from Prof. J. Bernardo, Palacio de la Generalidad, Caballeros 2, E-46001 Valencia, Spain.

Regards from Joan and I to you and Bernadetti (which we hope has been remembered correctly).

Best wishes,

Deunis