1995.07.11

Professor Willis E Lamb Jr University of Arizona

Dear Willis

I am awfully sorry about your wife's disease. The only consolation that occurs to me is that the tragedy would have been much worse had it happened at a much earlier age. I hope she is of good cheer, for it is well known that optimism and the love of life help greatly. (It is not that the mythical immaterial soul acts upon the body, but that the limbic system acts on the immune system.) And, as Marta comments, in the end the only thing that counts is whether one has lived a good life.

I have read all the reprints you so kindly mailed me, though admittedly some of them faster (more superficially) than others. I am very impressed, of course. I am also gratified by the large extent of agreement between us two on fundamental questions. Pity we did not meet 30 years ago, when I was struggling against the current all by myself.

You ask my opinion about Omnes's book *The Interpretation of Q. M.* I have no desire of looking at it because a couple of months ago I attempted, albeit unsuccessfully, to understand his long paper "Consistent interpretations of q.m" in *Revs. Mod. Phys.* 64:339-382 (1992). I don't understand what he means by 'coherence' and 'decoherence'; he insists that the conversion of coherence into decoherence is crucial, but at the same time admits that he cannot explain it; he consistently misuses the words 'logic', 'consistency', 'interpretation', and 'truth' (he writes about 'true facts'); the article is a chaotic hodge-podge dealing more with particular examples than with general principles; he asserts that "both the physical reality and the logos exist by themselves"; he takes seriously the pseudostate functions for the live and

dead cat. In sum, he seems to me to be utterly confused. In any event I learned nothing from that article.

As for d'Espagnat, he is just as confused as Omnes concerning realism, only even far more orthodox. But at least he did solid work in his youth.

As I suggested in my last letter, I wonder whether we might not concoct a joint paper on the infamous cat. A possibility would be to start by pasting together your own treatment of the problem (Dirac volume, especially pp. 255-258) and my paper on it, which I mailed you some time ago. Of course we would have to work out how to join them, as well as what general conclusion we can draw from the two. But I presume that this would be easier than finding a journal willing to publish the paper, since it would be damaging to the cat industry that has been flourishing over the past two decades. What do you say?

I must leave you now, for I have to concentrate on revising thoroughly the 500 pages of the draft of a *Philosophy of Biology* that my postdoc and I have been working on for the past two years. Incidentally, he has a German PhD in evolutionary biology, is very learned and quick, and is looking for a job, if possible a dual appointment in biology and philosophy. I mention this just in case you chance to hear of an opening.

Cordially

Mario Bunge