

January 23, 1939

Dear Darwin,

It is really exceedingly good of you, and more than I had any right to hope, to look over my paper so carefully. I am not sure whether you suggest any modification at the point you mark on page 6, where I say: "This fact alone does not explain why there should be any limit to the precision with which we know how much, and in what way, we actually move it". I am not there arguing that the principle of indeterminacy is untrue, but only that it is not satisfactorily explained by the popular slogan: "You can never see a thing without hitting it"; at least it would be necessary to complicate this supposed explanation by saying something like: "We can never see a thing without hitting it in a direction which is more and more unknown the more clearly we see it". My point is merely that/^{it}is quite conceivable that a world should be deterministic to the observer, even though he could be aware of nothing without barging into it. Consequently, the postulate that we are so placed does not, in itself, explain the rule of indeterminacy. I may, however,

have missed part of your point, and, if so, should be glad of a brief correction.

I am immensely glad that you find I have not grossly misrepresented the reactions of physical theorists to the problem, as this was the point I was most anxious about on reading over my paper. I am naturally curious as to your own point of view, and hope to hear your Galton Lecture - though generally I avoid more dinners in town than I attend. I doubt if I can get a grip on your concept of free-will without knowing what your "I" is. Trying to think objectively, the only clear distinction I can make as to the reality, or efficacy, of my intention and choice is between the views, (a) that sufficiently exact and detailed antecedent knowledge could, theoretically, predict all my actions in advance, and (b) that no conceivable system of prior observations could predict it in all detail. If the latter is true, then what I conceive of as my choice does have real effects on the future of the external world.

Take this as an attempt at clarification, not at argument.

Yours sincerely,