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Dear Francis and Odile:

I am very sorry that it had to take so long for me to write to you and thank you for the very nice couple of days I spent in Cambridge which you had organized so well for me. I have to thank Odile particularly for the exquisite food she cooked for me. I liked your two houses and the garden across the road, a unique and quite imaginative manner of living.

The reason for the long delay is that on arrival at the airport something very unexpected happened to me, namely, I lost the vision in my right eye. After arriving in New York a detachment of the retina was found which required prompt operation. Fortunately, I fell into the hands of a good surgeon and already have almost full vision again in the eye. It has been a trying time not being able to read and write for several weeks, and it was a disturbing end to a very pleasant visit to Europe including the better part which I spent in England.

Now let me turn to something that has bothered me, namely, that you felt that the joining of different organisms in the eukaryotic cell was a chance event. Yet, in most cases, what we see at present seems to me to be a "marriage of convenience", and this was why I looked for a background in present-day examples, such as the case of the lichens where fungi + algae yields a diversified group of symbionts. Essentially it seems that the initial reaction is a phagocytosis of bacteria or other cells which serve as food in primitive eukaryotes. Thus, as I see it, symbiosis is the result of an abortive phagocytosis where instead of being digested, the organism is more or less modified to become a helper since it can add to the metabolic means of the host, for example, nitrogen fixation or photosynthesis (Cf. enclosed copy of a paper given at the Ochoa birthday festival last year).

I am grateful to have been prompted by your doubt about seeing something special in this symbiotic aggregation to have spent some time reviewing it. I hope that you might agree that often it may be choice rather than chance.

With many good wishes to you both,

Sincerely,

Fritz Lipmann