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The Rockefeller Foundation

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MEDICAL AND NATURAL SCIENCES

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March 5, 1963

Dear Josh:

I am convinced that the pursuit of pure science is one of the very few things that makes life worth living.

Where I show my age is in my growing fear that the application of science from here on out is likely to bring us a good deal of trouble. For example, I would have been glad if the development of the airplane had stopped with the Stratocruiser, for now I find myself unable to get a good night's sleep flying across the Atlantic. I will not take time to talk about how the increase in population has made it increasingly difficult to find a nice place to have a picnic since other people have done this rather more eloquently than I. The whole business of spare parts leaves me somewhat disconcerted for rather deeper reasons. As a medical man, I must of course participate in the general belief that life is a good thing and ought to be preserved, but like all good things, I think we can carry the concept too far, and I think that our passion for avoiding death is now verging on the unseemly. After all, death and sexual dimorphism are probably the two greatest biological inventions of all time. I don't think we should go too far in tampering with either of them. In your preprint you raise another probably equally important reason for concern about spare parts - their effect on the concept of individuality. One is put in mind of my grandmother's story about the boy who had a jackknife which had been repaired so often that it had had seven new blades and three new handles.

Finally, we come to the fact that it may just be too much work to decide which way we want to direct our scientific power. Once we can manipulate both the genotype and phenotype to suit our wishes, we will have spent a lot of time deciding just what our wishes are. For H.J. Muller to the contrary, there is no such thing as an ideal man. We need all sorts of men to make a world. I boggle at the thought

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of designing each one individually. Most relevant here is your statement of man's basic dilemma - the discrepancies between the size of man's population and the complexities of his institutions on the one hand and the individual feebleness measured as a data input rate of no more than fifty bits per second. In one sense our problem is posed by the very fact that science enables us to escape inevitability, for when everything that happens becomes a matter of choice, the burden of choice becomes unbearable.

All this is by way of saying that I found your preprints stimulating and that you were right in suspecting that some of the thoughts were not entirely unfamiliar to me. Incidentally, I thought the extended version was ever so much better than the summary for NATURE. The effort of compression had squeezed out too much of the juice. Finally, I am not absolutely sure, in fact I am not sure at all, that one should seek an isolated or special environment in which to think about such matters. There is something stimulating about continually being brought in contact with new ideas and with urgent practical problems which we probably couldn't do without for longer than a few months. There are some exceptions to this rule - Newton may have been one of them, and you may be another - but very few minds are really self-regenerating.

One of the oddities in the present situation is that the historical custodians of value problems feel so completely unable to cope with the new angles being revealed by science. Philosophy seems to have died at just the moment when it is needed the most. It looks as if the future is really up to us naturalists, and I hope you can keep me informed as your thinking progresses. I am including a couple of reprints and other oddities which may bear on some of the points. The three chapters are part of a book I have just finished which is supposed to tell teenagers in search of a career something about science. The treatment of value problems has therefore been kept at a somewhat primitive level, but since the problems are likely to be with us for a long time, I thought it might be wise to get the younger generation thinking about them early.

Yours sincerely,



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RSM:sts
Enclosures

*P.S. you probably
know the summer
time of Berkeley 1961
which touches on some of these
things.*