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Dr. John McCarthy, Department of Mathematics, Dartmouth College, New Hampshire
Dr. Claude Shannon, Bell Telephone Laboratories

The discussion centered on Mc's interest in establishing a summer seminar on the theory of computers and brain action at Dartmouth. Mc. did most of the talking except when questions were explicitly referred to S.

Not having known Shannon before it was difficult for RSM to decide about the depths of his interest in the proceedings as he seemed a little abstracted a good part of the time. McCarthy strikes one as enthusiastic and probably quite able in mathematics but young and a bit naive. RSM outlined the RF's difficulty in appraising proposals for supporting meetings of various kinds and said that the large number of such applications made it necessary for us to scrutinize each one with more than ordinary care. He hoped that M. would understand therefore, if we seemed unduly skeptical. Against this background he tried to discover what M. and S. thought about the timing of this particular seminar. Is this the time at which the greatest need is for exchange of ideas between individuals or should the principal emphasis be on the efforts of individuals working alone on their own studies to develop really new ideas? A case can be made that the theory of brain function as related to the mathematics of computation is still in the pre-Newtonian or pre-Einstein phase where what may be needed is some brilliant insight rather than group discussion. The answer to this depends somewhat on how one feels about committees as created mechanisms; RSM happens to take a dim view.

M. and S. seem to agree, at least in part, but point also to the fact that practically none of the men they would like to invite are really free to devote any but a small fraction of their time to theoretical thinking in this area. Part of the objective of their seminar would be to give each individual a two or three month stretch in which to devote full time to theoretical thinking, with the stimulus of occasional general meetings for exchange of ideas within the group. This certainly makes some kind of sense but whether it makes RF sense or not is not clear.

Some time was given to discussing the various persons who might be included, although the list is by no means complete as yet. Besides M. and S. themselves the following suggestions were made; Nat Rochester, who is apparently one of the chiefs of the Theoretical Computation Division of IBM; Martin Minsky; John von Neumann (perhaps for a short time, if available); Donald O. Hebb; Professor of Psychology at McGill and RF grantee; Oliver Selfridge. The latter apparently strike M. and S. as the soundest and most amenable to group activity of the various younger men who have been associated with Norbert Wiener. The most attractive foreign name seemed to be that of W. R. Ashby. S. worries a good deal about MacKay's interest in theological metaphysics.

Some thought was also given to how fast one ought to move from the pure contemplation of mechanical computers into the business of analogizing them to what we know about brain function. M. and S. seem to want to go rather slowly at this. Nevertheless, it might be wise to include one or two other psychologists if only for the purpose of keeping the group from speculating too wildly on how the brain might work. RSM recommended that M. might like to

talk with Lukas Teuber here in New York and perhaps Karl Pribram in Hartford. Both these men are extraordinarily well qualified psychologists and have enough breadth of education and curiosity to have informed themselves, at least fairly well, about cybernetics and mathematical speculations.

This interview was conducted, as far as possible, on the assumption that no formal proposal was before us and that we were merely exploring the ground so that McCarthy and Shannon might know what kind of proposal would receive the most sympathetic study here. Not very much encouragement was given to believe that the final decision would be a favorable one. RSM is left with some uneasiness over the possibility that something good might come out of this seminar at relatively little cost, but he finds himself much more uneasy at the discovery that so few of the able men who might be invited are free during most of the year to give their attention to the pure science of either computation or thought. McKay may actually be the only one.