

Young, J. Z. Doubt & Certainty in Science
(the B.B.C. Reith Lectures, 1950) Oxford
at the Clarendon Press pp. 168.

Suggests biologists been wrong in concentrating on those features of man wh. shared by other animals. Should look more at man's peculiarity - his brain, communication & social system.

Special features = all due to communication

- To discuss how brain makes communication bet. human beings possible.

Refers to famous dualism of mind and matter which is perhaps the central problem of modern philosophy, religion, & science.

Information stored in form of a print or by sending impulses round closed circuits.

The doctrine that learning is all of a car type has had immense neg. in Russia & is said to be a basic part of the theory of Soviet education.

Accepts Hebb's theory of brain having to learn a great deal before it can even see things.

There may be about 100 serious & competent scientists in "world studying brain connections. Yet there must be 100,000 or more chemists of competence. Esquem seems to feel this is right proportion.

biggest calculating machine only 2³,000 valves whereas brain has 1,500 million cells.

The question of the nature of the memory trace is one of the most obscure and disputed in the whole of biology. Comes definitely, there is such a trace.

Young cont.

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Emphasizes effect of function on fiber and cell size
as possible basis of memory trace being:
something especially significant about cell size.

Baby monkeys from which large areas of cortex removed, show little effect at first, but as they grow up show marked deficiencies in learning capacity.

"When I was in Paris preparing these lectures,"
Hebb redvelops suggestion we learn pain & pleasure.

"By studying all the variety of life, including the life of man, biologists can include and transcend the other sciences."

This study of the brain is certainly one of the most challenging of all scientific problems. At present we spend much of our mathematical and physical genius on study of the world around us. Why not apply more of it to ourselves and especially to our brains?"

Quotes Proust!