Sir Karl Popper

Sir Karl Popper, the most eminent philosopher of this age, celebrated his 80th birthday on July 28, 1982. He was born into a well-to-do legal family in Wien, but the good life style of the pre-war years was lost in the disintegration of Austria in 1917 and thereafter his life was a struggle in poverty, but struggle he did to get the best possible education. For many years he was an unofficial student of the University of Vienna, and eventually qualified to be a primary school teacher. Meanwhile he had been working for several years as an apprentice to a cabinet maker. His Ph. D. in 1928 was in the Psychology of Language under Professor Bühler. At the same time he had been educating himself in science, philosophy and mathematics in the most amazing way so that he became a respected critic of the famous Vienna Circle, though never a member. He was developing his fundamental ideas on the philosophy of science. He states in his autobiography "Unended Quest" (Fontana and Collins 1976):

“I had held in my hands for many years a better criterion of demarcation: testability or falsifiability. This view implied that scientific theories, if they are not falsified, for ever remain hypotheses or conjectures.

Thus the whole problem of scientific method cleared itself up, and with it the problem of scientific progress. Progress consisted in moving towards theories which tell us more and more—theories of ever greater content. But the more a theory says the more it excludes or forbids, and the greater are the opportunities for falsifying it. So a theory with greater content is one which can be more severely tested. This consideration led to a theory in which scientific progress turned out not to consist in the accumulation of observations but in the overthrow of less good theories and their replacement by better ones, in particular by theories of greater content. Thus there was competition between theories—a kind of Darwinian struggle for survival.”

Later he states:

“From the point of view of this methodology, we start our investigation with problems. We always find ourselves in a certain problem situation; and we choose a problem which we hope we may be able to solve. The solution, always tentative, consists in a theory, a hypothesis, a conjecture. Thus there is no induction: we never argue from facts to theories, unless by way of refutation or falsification. This view of science may by described as selective, as Darwinian. By contrast, theories of method which assert that we proceed by induction or which stress verification (rather than falsification) are typically Lamarckian: they stress instruction by the environment rather than selection by the environment.”
He organized his revolutionary ideas on the philosophy of science in a book "Logik der Forschung" (1934), which was not published in English until 1959 as "The Logic of Scientific Discovery".

Meanwhile he had left Wien to escape the growing threat of Hitler, and in 1937 secured his first University appointment as Lecturer in Philosophy in Christchurch, New Zealand, where he remained until the end of 1945 when he returned to Europe as a Reader and later as a Professor in the London School of Economics. In New Zealand he wrote his great 2 volume work "The Open Society and its Enemies". It is an outstanding critical work destroying the alleged intellectual and moral bases of totalitarianisms of the right and of the left.

I had arrived in Dunedin, New Zealand in 1944 and had the closest association with Popper during 1945. For me his philosophy of science was a great liberating message as I had been championing a theory of electrical synaptic transmission that was becoming untenable. I wrote in retrospect:

"The erroneous belief that science eventually leads to the certainty of a definitive explanation carries with it the implication that it is a grave scientific misdemeanour to have published some hypothesis that eventually is falsified. As a consequence scientists have often been loath to admit the falsification of such an hypothesis, and their lives may be wasted in defending the no longer defensible. Whereas according to Popper, falsification in whole or in part is the anticipated fate of all hypotheses, and we should even rejoice in the falsification of an hypothesis that we have cherished as our brain-child. One is thereby relieved from fears and remorse, and science becomes an exhilarating adventure where imagination and vision lead to conceptual developments transcending in generality and range the experimental evidence. The precise formulation of these imaginative insights into hypotheses opens the way to the most rigorous testing by experiment, it being always anticipated that the hypothesis may be falsified and that it will be replaced in whole or in part by another hypothesis of greater explanatory power."

In 1951 I was able experimentally to falsify my electrical hypotheses of excitatory and inhibitory synaptic transmission. Immediately with great enthusiasm I embraced the rival chemical theory. Popper was delighted with the outcome of an investigation carried out in accord with his philosophy of science. Popper has always been interested in the brain-mind problem, being from his earliest times a dualist-interactionist. In recent years he has become very well informed on the neurosciences. We had the most rewarding experiences collaborating in the book "The Self and its Brain" published by Springer International in 1977 and in a German translation "Das Ich und sein Gehirn" published in August 1982 by Piper Verlag, München.

The very title of the book is a clue to the theme of brain and mind as two independent interacting entities—a kind of neo-Cartesianism with the self in control of the brain, much as in the analogy of the programmer and its computer.

In this book there is much of value to neurologists and psychiatrists. In particular there is severe criticism of the prevailing materialist solutions of the mind-brain problem in Popper's 5 chapters, as well as in my later chapters, E7 and E8, and in the Discussions of Part III. Of particular interest also is the 3-World