

The Education of Karl Popper

Submitted by Sarah Fitz-Claridge on 15 July, 2003 - 10:10

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Karl Popper is a philosopher whose work has had a huge influence beyond the narrow confines of academic philosophy. He has made important contributions in a wide variety of subjects including the methodology of science, education, politics and art. Sir Peter Medawar, a winner of the Nobel Prize for Medicine, has **said**: “I think Popper is incomparably the greatest philosopher of science that has ever been.” Popper's passionate and devastating critique of totalitarian ideologies has led **Helmut Kohl** to describe him as one of the most significant champions of the open society. The phrase “open society” itself owes its currency to Popper's use of it as the title of his *magnum opus* in defence of liberty. Even Popper's critics, such as Professor **Anthony O'Hear**, acknowledge the unity and comprehensiveness of his thought.

Although Popper is not commonly regarded as a writer on education, in *The Open Society* he develops a devastating **critique** of our academic tradition. “Instead of encouraging the student to devote himself to his studies for the sake of studying, instead of encouraging in him a real love for his subject and for enquiry ... he is led to acquire only such knowledge as is serviceable in getting him over the hurdles which he must clear for the sake of his advancement.”

In the light of his achievements and his own disenchantment with conventional educational institutions, it is interesting to look back on his own educational experience.

Popper was raised in Vienna in an intellectually-laden atmosphere: “...there were books everywhere – with the exception of the dining room, in which there was a Bösendorfer concert grand and many volumes of Bach, Haydn, Mozart, Beethoven, Schubert, and Brahms.” His mother was an accomplished pianist, and at one point Popper nearly became a professional musician. His father, a radical liberal of the J. S. Mill school, was a lawyer by profession, but Popper describes him as more of a scholar than a lawyer.

The first book which made a significant impression on Popper, just before he learned to read, was *The Wonderful Adventures of Nils*, by Selma Lagerlöf. On the subject of learning to read, Popper says: “I shall be for ever grateful to my first teacher, Emma Goldberger, who taught me the three R's. They are, I think, the only essentials a child has to be taught; and some children do not even need to be taught in order to learn these. Everything else is atmosphere, and learning through reading and thinking.”

When Popper was ten he met a thirty-year-old socialist and anti-nationalist, Arthur Arndt, who was to have a great influence upon his early intellectual development. Arndt took Popper on Sunday outings to the Vienna Woods with the Monists, a group interested in science and philosophy. On these excursions the conversation was often about Marxism and Darwinism, which, although Popper did not entirely understand, excited and interested him.

Popper's father appears to have spent much time talking to him, engaging seriously with his views, and never patronising him. Perhaps it should not be surprising, then, that even as a child Popper pondered philosophical problems. At fifteen, he criticised Strindberg for according too much significance to the meanings of words. His father did not understand Popper's point, and they had quite a lengthy discussion. Popper decided never to argue about words and their meanings "...because such arguments are specious and insignificant."

In about 1917, Popper came to a clear realisation about school: "...we were wasting our time shockingly, even though our teachers were well-educated and tried hard to make the schools the best in the world. That much of their teaching was boring in the extreme – hours and hours of hopeless torture – was not new to me. (They immunised me: never since have I suffered from boredom. In school one was liable to be found out if one thought of something unconnected with the lesson: one was compelled to attend. Later on, when a lecturer was boring, one could entertain oneself with one's own thoughts.)" On returning to school after an illness of over two months Popper was shocked to find that his class had hardly made any progress, so, at the age of sixteen, he decided to leave school. He enrolled at the University of Vienna, where the cost of enrolling was nominal and every student could attend any lecture course. "Few of us thought seriously of careers – there were none... We studied not for a career but for the sake of studying. We studied; and we discussed politics."

At university Popper initially attended lectures in many different subjects, but he soon dropped all subjects other than maths and theoretical physics. He thought that in mathematics he would learn something about standards of truth. He had no ambition to become a mathematician, and says: "If I thought of a future, I dreamt of one day founding a school in which young people could learn without boredom, and would be stimulated to pose problems and discuss them; a school in which no unwanted answers to unasked questions would have to be listened to; in which one did not study for the sake of passing examinations."

The years after the war were grim and depressing, but Popper and his friends were learning: "...our minds were active and growing. We were reading ravenously, omnivorously; debating, changing our opinions, studying, sifting critically, thinking. We listened to music, went tramping in the beautiful Austrian mountains, and dreamt of a better, healthier, simpler, and more honest world."

When he was nearly seventeen Popper became a communist, but after only a few months he became disillusioned. "Once I had looked at it critically, the gaps and loopholes and inconsistencies in the Marxist theory became obvious." The encounter with Marxism was one of the main events in Popper's intellectual development. He says that it taught him the wisdom of the Socratic saying, I know that I do not know. "It made me a fallibilist... And it made me most conscious of the differences between dogmatic and critical thinking."

At about the same time, Popper learned that observations of a recent solar eclipse had borne out a highly improbable prediction of a new theory proposed by Albert Einstein. Popper had been very impressed by Einstein's insistence that his theory must be regarded as untenable if this predicted effect failed to be fulfilled. Thus, by age seventeen, Popper had begun to realise that the scientific attitude is the critical attitude; the attitude of boldly exposing ideas to possible refutation.

In the ensuing years, he came to elaborate this insight into his "criterion of demarcation" between science and non-science. "It became clear to me that what made a theory, or a statement, scientific was its power to rule out, or exclude, the occurrence of some possible events – to prohibit, or forbid, the occurrence of these events. Thus *the more a theory forbids, the more it tells us.*" In the light of this criterion, Popper came to regard the theories of Freud and Marx as pseudoscientific: they explained everything but forbade nothing.

At the age of twenty, Popper became apprenticed to an old master cabinet maker, whom he worked with from 1922 to 1924. He says of that time: "I believe I learned more about the theory of knowledge from my dear omniscient master Adalbert Pösch than from any other of my teachers. None did so much to turn me into a disciple of Socrates. For it was my master who taught me not only how little I knew but also that any wisdom to which I might ever aspire could consist only in realising more fully the infinity of my ignorance."

While an apprentice, he continued to develop his ideas about the nature and origins of knowledge. In particular, he started developing what was to become his most important philosophical discovery that “all learning is the modification of some prior knowledge.” Unwittingly, he had taken the first step towards the solution of a classical philosophical problem – the problem of induction.

Popper was the first to understand that observations did not, as commonly supposed, give rise to theories; on the contrary, their role was exclusively restricted to the criticism – the testing – of theories. This simple, but still controversial conclusion, has revolutionised our whole conception of knowledge, and has profoundly influenced the study of all phenomena in which the growth of knowledge is an important factor. These include the scientific method, the theory of evolution, psychology, politics, and even physics.

Now in his nineties, Popper is still intellectually engaged. He is optimistic about the future of the world, and describes himself as the happiest philosopher he knows. He says: “I feel in all modesty overwhelmed with ideas, of which I can only put some down, and that's wonderful.”

Notes

If you are interested in reading more about Popper, I thoroughly recommend his autobiography, *Unended Quest*, and the brilliantly accessible book by Bryan Magee, *Popper*. All unattributed quotes are from *Unended Quest, An intellectual autobiography*, by Karl Popper, 1992 edition, Routledge, London.

[BBC Radio 3 on 28th July 1972, quoted in *Popper*, by Bryan Magee, 1973, Fontana Modern Masters, Fontana/Collins, Glasgow, p. 9.](#)

[Preface to *Unended Quest, An intellectual autobiography*, by Karl Popper, 1992 edition, Routledge, London.](#)

[Karl Popper, by Anthony O'Hear, 1980, Routledge & Kegan Paul Ltd., London, Boston, and Henley, p. 1.](#)

[Open Society, by Karl Popper, Vol. 1, p.135](#)

[The Intellectual Warrior, a profile of Karl Popper, by John Horgan, in *Scientific American*, November 1992.](#)

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Comments

Popper's Great!

Submitted by mammal_mama on 8 February, 2007 - 01:35

In addition to loving your site for helping me stretch and grow as a parent, I'm also very grateful for the intro to Karl Popper.

I've just begun reading "Objective Knowledge," the book David Deutsch recommended to you in your search for something beyond John Holt and the other available parenting books.

Popper's piqued my interest in Charles Darwin and his theories, among many other things.

I look forward to reading "Unended Quest" in the near future.

Susan

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