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# The Karl Popp Web

(Referenced by the B.B.C., the British Science Museum and The Encyclopaedia Britannica)

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#### **RE-THINKING** POPPER

September 10th -14th 2007 Prague, Czech Republic

The conference aims to review Karl Popper's philosophy and evaluate its relevance to current philosophical debates.

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#### Founder and Editor: Dr. Ray Scott Percival

Co-Founder and Assistant Editor: Dr. Barry McMullin



Karl Raimund Popper (1902-1994) Photograph used by kind permission of Dr. Milan Jira from Popper's visit to Prague, May 1994.



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# The Aims of The Karl Popper Web

- 1. Promote, explore and defend the heroic and critical ethos of science through philosophical debate.
- 2. Promote the sense of wonder that forms the motivation for science and philosophy.
- 3. Critically explore and apply the work of Sir Karl Popper, a key figure in the defence of science.
- Make this accessible to new audiences and participants: beginners to science and philosophy, the newly opened societies of Russia, Eastern and Central Europe, less developed countries, the young and the disabled. 4

## Karl Popper's 1934 Bombshell

In 1934 Popper published what many regard as his Magnum Opus The Logic of Scientific Discovery. The famous chemist Wachtershauser said that this is a "gem" and that it liberated him from a sterile accounting view of science. Wachtershauser subsequently went on to develop one of the main theories of the origin of life. Frank Tipler, the famous cosmologist, regards this as the most important book of the 20th century. In one majestic and systematic attack, psychologism, naturalism, inductionism, and logical positivism are swept away and replaced by a set of methodological rules called Falsificationism. Falsificationism is the idea that science advances by unjustified, exaggerated guesses followed by unstinting criticism. Only hypotheses capable of clashing with observation reports are allowed to count as scientific. "Gold is soluble in hydrochloric acid" is scientific (though false); "Some homeopathic medicine does work" is, taken on its own, unscientific (though possibly true). The first is scientific because we can eliminate it if it is false; the second is unscientific because even if it were false we could not get rid of it by confronting it with an observation report that contradicted it. Unfalsifiable theories are like the computer programs with no uninstall option that just clog up the computer's precious storage space. Falsifiable theories, on the other hand, enhance our control over error while expanding the richness of what we can say about the world.

Any "positive support" for theories is both unobtainable and superfluous; all we can and need do is create theories and eliminate error - and even this is hypothetical, though often successful. Many superficial commentaries are keen to point out that other people stressed the importance of seeking refutations before Popper. They overlook the fact that Popper was the first to argue that this is sufficient.

This idea of conjecture and refutation is elaborated with an orchestration suggestive of someone who loves great music. (Popper loved Mozart and Bach, and took great pleasure in composing his own music.) The common idea that Popper neglected to consider whether Falsificationism itself is falsifiable is already scotched here. You can falsify a description, but not a rule of method as such (though obviously a rule can be

criticized in other ways). The notion that science offers proof is now only advanced by popular treatments of science on TV and in (many) newspapers - most journalists (with a few important exceptions) are sadly completely devoid of theoretical knowledge: a side-effect of overspecializing on the immediate moment. But then, anyone can improve!

Most people who think they have a ready rebuff to Popper's position have never read his work. If they only read the original works, in most cases they would see that their supposed "Point that Popper neglected" had already been considered and exploded. A good example of this is Lewis Wolpert's remarks on Popper's works in his otherwise excellent book *The Unnatural Nature of Science*. He seems to think that Popper's falsifiability criterion ignores hypotheses about probabilities - overlooking the blatant fact that *The Logic of Scientific Discovery* devotes more than a third of its pages to the two fundamental problems of probability in an effort to find a solution that will also allow hypotheses about the probability of events to be capable of clashing with the evidence! Popper was in fact fascinated by probability and even produced his own axiomatisation of the probability calculus.



For the best current re-statement, defence and - more importantly - application of Falsificationism see David Miller's <u>Critical Rationalism: A</u> <u>Re-Statement and Defence.</u>(for amazon.com) (for amazon.uk) Miller was a very close friend and colleague of Popper's. He pulls no punches and is (despite his modesty) Popper's best knight. If you want razor-sharp logical accuracy, a full arsenal of arguments, and comprehensive demolition (with unrestrained collateral damage) of the opposition, Miller's book is the answer. It is important for students because it carefully delineates the various relevant intellectual combatants. And will interest scientists because of its treatment of chaos and propensities.

Feel free to join our discussion group, <u>Critical Cafe</u>, and visit the <u>Book Shop</u> for my abstracts on Popper's books. In our forums we have the pleasure of the company of both critics and adherents of Popper's work. This makes for lively and productive exchanges. Join us in our intellectual auest

### Featured New Books:

Karl Popper: The Formative Years, 1902-1945, Professor Malachi Hacohen, Cambridge University Press, 2000. (Available now in the US. Availabale in the UK in early 2001.)

This book on Popper uses the Popper Archives held at the Hoover Institution, Stanford University. It is truly and engagingly revealing. It draws not only on Popper's correspondence but also on correspondence about him by major intellectual figures. It does an excellent job of placing Popper's radically different approach and arguments in relation to the Vienna Circle to which many verngly thought the and his arguments belonged.

To Order From Amazon.com: Karl Popper: The Formative Years.



# Background to The Karl Popper Web

The Karl Popper Web is an online complement to the Annual Conference on the Philosophy of Sir Karl Popper. I announced my intention to set up such a service at the 1995 Conference held at the LSE on 11th March. At the Conference I was approached by <u>Barry McMullin</u>, of the School of Electronic Engineering of Dublin City University, who offered his help to put together an electronic forum on the Internet.

## Audience and Participants

Apart from perhaps Bertrand Russell, Popper is unique in having had such a wide influence outside of traditional academia. Many people, not just philosophers, have been intrigued, inspired or annoyed by Popper's ideas. His ideas have relevance and impact in science, business, politics, art, music, and also in peoples' personal lives. We expect and encourage both professional and non-professional philosophers to participate in or visit **The Karl Popper Web**. Professionals and non-professional lives. We expect and encourage both professional is of the professional (ligence, focus etc.) can rub off and the professional is saved from the obscurity and elitism of overspecializing by having to be clear to the non-professional. The great philosophy and science writers (Darwin, Russell, Popper, Einstein, Dawkins, Deutsch) are all characterized by their keenness to communicate to all intelligent people, not simply to their co-specialists. TKPW is a globally accessible space for the meeting of minds from different backgrounds and specialisms with a common sense of wonder in life and the world.

### The Portrayal of Science

Many projects intended to promote a better understanding of science are very clever but also in way superficial. They portray the effects of scientific laws - the fireworks of science - very well, but alone they cannot convey and inspire the method and the self-critical ethos of science. I am in favor of firework displays, and the laws of science need well-designed and innovative illustration. As Lewis Wolper's book argues superbly, science is not technology. It is not computers, Saturn V rockets, fission or fusion reactors, nor any of the exciting and fascinating products of an advanced industrial society that enable us to control the world. It is rather a desire to understand the world. This is Wolpert's common ground with Popper. I wish to emphasise the philosophical aspects of science, which spring from a wonder at the existence, structure and evolution of the world.



For an excellent defense of the deeper poetic quest of science, see Richard Dawkins's book, Unweaving The Rainbow. Dawkins, the Charles Simonyi Professor of the Public Understanding of Science at Oxford University, and author of The Selfish Gene, shows that when science solves its puzzles we find deeper mysteries. He also shows how our appetite for wonder can be lead astray into the dead ends of supernaturalism, which relies on savoring but not solving mysteries. When science successly we always get both the wonderful revelation plus further helpings of the mysterious. You can have your cake and eat it! <u>Unweaving the Rainbow</u>. (for amazon.com) (for amazon.uk)

### A Note on Accessibility

I have eschewed the use of some new web technology in order to make the site accessible to even the poorest web-enabled countries. Carried away on the hubris of the web, many web developers have overlooked the next big wave of users: the peoples of less developed countries, most of whom will not be using ADSL and Pentium III computers, but rather, at least for some time, our old 486s, secondhand software and relatively slow connections. (Incidentially, I do conjecture that - where governments allow - computer/internet developments will occur more rapidly in these countries, partly because many of the technological hurdles have already been jumped in more developed countries.) I will be introducing sections that do take advantage of the latest technology, but the strategy will be to make any enhanced content accessible in a gracefully degraded form also.

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