

POPPERS SOLUTION TO THE PROBLEM OF INDUCTION,
HYPOTHETICAL REALISM, AND TECHNOLOGY

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Popper's solution with respect to the problem of induction continues to grow in importance, given its continued relevance and the profound implications it has with respect to the generation of scientific theories and related areas. Popper was right, and the impact of his solution on the real world has been immense. *But this is often less appreciated than it should be, because of the failure to take into account this solution's implications when one considers the marriage of science to technology* — called technoscience by Evandro Agazzi, and others.

This is best seen by examination of some of the most recent and relevant developments of technoscience such as Leroy Hood's achievements which advanced the Human Genome Project and the success of Harley MacAdams in creating the first extensive operational model of the metabolism of living cells using the methodology of systems dynamics.

In order to see the critical relationship between Popper and these advances, it is not convenient to interpret Popper exclusively within the framework of critical rationalism — Popper's preference historically — but from the standpoint of hypothetical realism because this interpretation throws more light on the relationship between induction and the popperian “general tetradic schema”, that he proposed as “useful as a description of the growth of theories”. In the examples referred to above, it will be seen that this schema appears in various analogical forms as probably one of the most significant concepts of the 20th century. References will be made to some recent investigations in the area of cognitive science in order to highlight the examples, and thereby better support the above thesis.

Popper, Karl. *Objective Knowledge. An Evolutionary Approach*. Oxford University Press, reprinted and revised edition, 1979 (orig.1972). Chapter 8.