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- Popper's basic argument was this. Although a scientific theory (or hypothesis) can never be proved true by a finite amount of data, it can be proved false, or refuted. Suppose a scientist is testing the hypothesis that all pieces of metal conduct electricity. Even if every piece of metal they examine conducts electricity, this doesn't prove that the hypothesis is true. But if the scientist finds even one piece of metal that fails to conduct electricity, this conclusively refutes the theory. For the inference from 'this piece of metal does not conduct electricity' to 'it is false that all pieces of metal conduct electricity' is a deductive inference — the premise entails the conclusion. So if a scientist were trying to refute their theory, rather than establish its truth, their goal could be accomplished without the use of induction.

15.00

Weakness of Popper's argument

16.00

- Why assume a viewpoint or pass a judgement on the intention of a scientist who is trying to test a hypothesis?

17.00

- The deductive inference in the above example has only been applied after it has been conclusively known that a given piece of metal does not conduct electricity. During the testing of the hypothesis, we cannot deductively prove that the current piece of metal conducts electricity just because all the pieces of metal have conducted electricity.

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- Popper's attempt (to show) that science can get by without induction does not succeed.

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