

**The two classes of results which are distinguished by our test of significance are, on the one hand, those which show a significant discrepancy from a certain hypothesis; ... ; and on the other hand, results which show no significant discrepancy from this hypothesis.**

-R. A Fisher "The Design of Experiments, 8. The Null Hypothesis"

# **reductio ad absurdum**

## **Proof by Contradiction**

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- ☐ To prove that an assertion is true, we first assume it is false, then show that this assumption leads to a logical contradiction