

The corroboration formula for appraising a theory:

$$(T \cdot A_T \cdot C_p \cdot A_I \cdot C_n) \vdash (O_1 \supset O_2)$$

T : The theory of interest

A_T : Auxiliary theories relied on in the particular experiment

C_p : Ceteris paribus clause (other things being equal)

A_I : Instrumental auxiliaries (devices relied on for control and observation)

C_n : Realised particulars (conditions were as the experimenter reported)

$O_{1,2}$: Observations, or statistical summaries of observations

The case of the falsified conjunction ($O_1 \cdot \sim O_2$) :

$$\sim (T \cdot A_T \cdot C_p \cdot A_I \cdot C_n) \equiv \sim T \vee \sim A_T \vee \sim C_p \vee \sim A_I \vee \sim C_n$$