
Questioning as we learn: An introduction to critical thinking

Material for Higher Education students in Sierra Leone by INASP, UK



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Unit 4 - Snippet 93

Correlation does not necessarily mean causality

To understand our past and present, and to foresee the future, philosophers and scientists since ancient times have been preoccupied by the issue of causality, i.e. the relationship between cause and effect.

Cause–effect relation – or causality – is the connection between two events occurring in such a way that one event (cause) leads to another (effect). For example, standing in the rain will cause you to get wet. Heavy rain over a long time causes flooding. Excessive deforestation causes soil erosion.

However, not every connection between two events is a cause–effect relation. A correlation is simply a bidirectional relationship between two things. Moreover, some correlations between events or circumstances may be false, and to conclude anything from putting them together would be reckless. One of the funniest examples of such a rash conclusion is related in the anecdote of a farmer and his wife travelling on a train. A fellow passenger offers them an unfamiliar fruit they had never tasted before. Just as the husband bites into the fruit, the train enters a dark tunnel. Terrified by the effect of the fruit, he tells his wife, “Don’t you eat that fruit, Susie, it will make you go blind”. Coincidences are ‘by chance’ concurrences with no apparent causal connection.