

THE PHILOSOPHY TOOLKIT

DEDUCTIVE REASONING

When philosophers use an argument to decide whether something is rational or not they infer a **conclusion** from a series of **premises**.

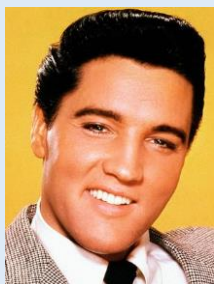
If the premises of an argument logically entail the conclusion, we say that the argument is **valid**. If the premises of the argument are true, then the conclusion must be true. This is an example of deductive reasoning.

Premise 1: *Holly is a human*
Premise 2: *All humans have a brain.*
Conclusion: *Holly has a brain*



However

It is possible to produce a deductive argument that is valid – because it is logically sound - **but not true**. If one or more of the premises are not true, then the conclusion may be logically valid but false.



Premise 1: *Elvis Presley is alive*
Premise 2: *All living things reside in Rainham*
Conclusion: *Elvis Presley resides in Rainham*

Like the first example, this argument is valid. Given the two premises, the conclusion must follow. But the conclusion is **false** – because the premises are false.

So in order to ensure that we have a conclusion that is true, we need to ensure two things:

- All of the premises are true
- The argument is valid