Deconstructing climate misinformation to identify reasoning errors

Step 1: Deconstruct a claim.

1:50:

The first step in analysing a claim is to break up the argument into a starting assumptions or premises and its conclusion. For example, the argument you just mentioned has two premises the first one is that climate has changed naturally in the past the second one is that the climate is changing now, and the conclusion is that current climate change is natural.

A: climate has changed naturally in the past so current climate change is natural

P1: climate has changed naturally in the past.

P2: climate is changing now.

C: current climate change is natural

Arguments fit the following structure they have one or more starting assumptions we call these premises and a conclusion when you're examining a claim you first need to reorganize it into this structure once you've deconstructed the claim into premises and a conclusion you can move on to step two working out.

Step 2: Check Validity.

2:32

We first check if the argument is logically valid i.e. Does the conclusion follow from the premises? Is usually simpler to demonstrate an argument is invalid by use of a parallel argument. Parallel arguments use the same logical structure as the target argument but instantiate it in such a way that the conclusion is obviously false. In a valid argument it is impossible for the conclusion to be false whilst all the premises are true. Parallel arguments identify a clear counter example and show that an argument is not valid. If the conclusion is not justified by the reasons given, so we must either reject the conclusion or revise it. If all the premises are true, does it follow that the conclusion is also true.

Step 2a: identify hidden premises.

9:01

If the conclusion doesn’t follow from the premise, we need to add an extra premise. An unstated assumption to make this argument logically valid.

Step3: Check premises

7:34

Are the premises true? Tag misleading fallacies.