PHIL class 13 - Unit 6: Confirmation

Observation: To be explained
Hypothesis: The explaination (to be confirmed or disconfirmed)
Prediction

Observation: Someone bought $800000 of casino chips with cash.
Hypothesis: The SOS mega-church had a mega bake sale to play roulette.
Prediction: There are bake sale photos on the SOS Facebook page.

Conditional in this story:
This is confirmational reasoning.

If SOS had a bake sale .
then there would be photos.
There are bake sale photos.
Therefore, SOS had a bake sale.

This is Affirming Consequence (AC)
However it is not necessarily a fallacy, it is an inductive argument (stronger / weaker) instead of true or false.

Observation: My girlfriend has been texting someone a lot lately
Hypothesis: My girlfriend is cheating on me.
Prediction: She texts me that she's "working late".

This is not a great prediction. However we can still construct an arugument

if Hypothesis then prediction
prediction
therefore Hypothesis

Hypothesis: Boyle's law (gas volume is inversely proportional to pressure).
Prediction: Pressure doubles when gas volume is half.

What would explain a false prediction even if the Hypothesis is true?
Change of temperature.

We need a necessary condition. In this case the necessary condition is constant temperature.

If Hypothesis then prediction - only if temperature is constant.
"temperature is constant" is necessary, so use consequent.

If Hypothesis AND temperature is constant
then prediction
NOT prediction
Therefore
NOT Hypothesis OR NOT temperature is constant