Unless propositions

- 'Unless' states a necessary condition = p unless q
- **But** unlike 'only if' (p only if q):

p unless q = q is <u>necessary</u> to avoid p, and no more You cannot run a marathon unless you have two legs

- = if not q then p If you don't have two legs, you cannot run a marathon
- = either p or q Either you have two legs or you cannot run a marathon

"Either...or" propositions (disjunctive) can have either an inclusive (and both) or exclusive (and not both) sense

E.g. above is exclusive – you can't run if you don't have legs

BUT

Either some historians have told lies or there were miracles in the first century – INCLUSIVE

Why? Because it is actually possible for both to occur at the same time; there is no necessity for no historians having told lies for miracles to happen. After all, those historians could be lying about there being no miracles or about some other events that are unrelated to miracles.