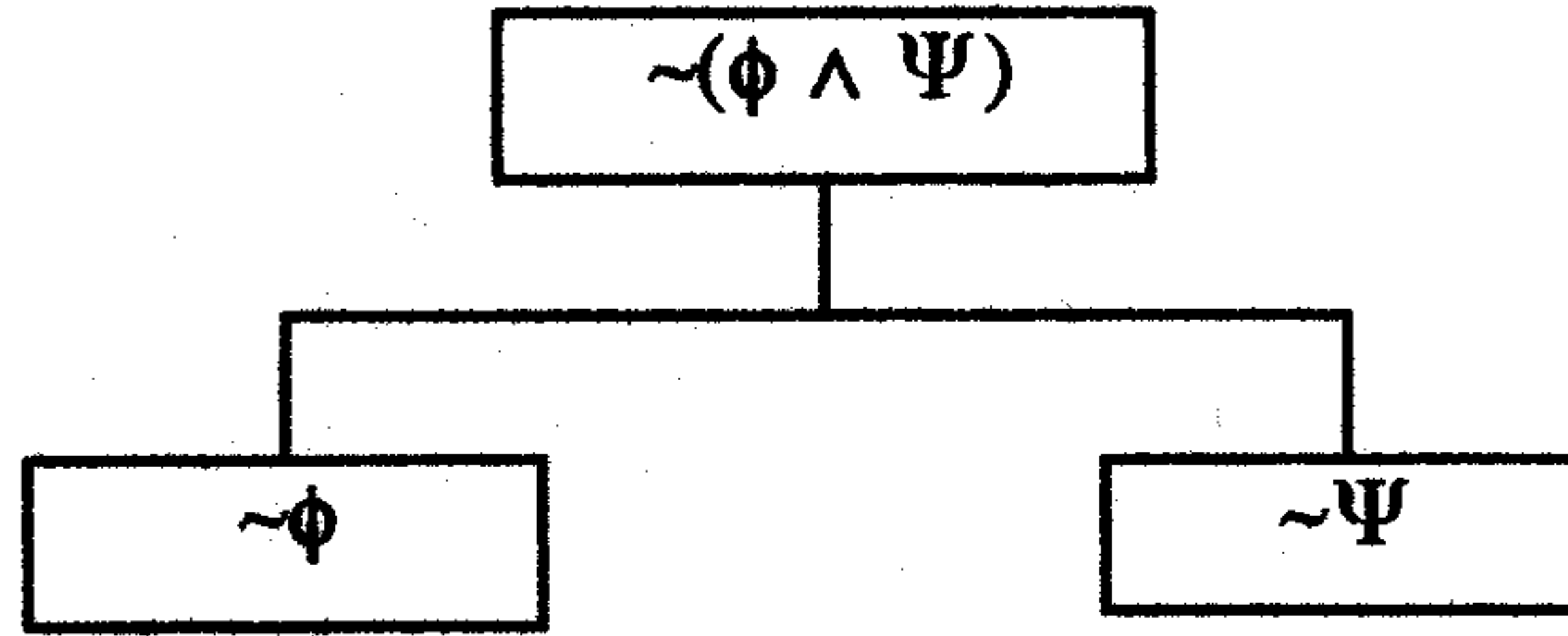
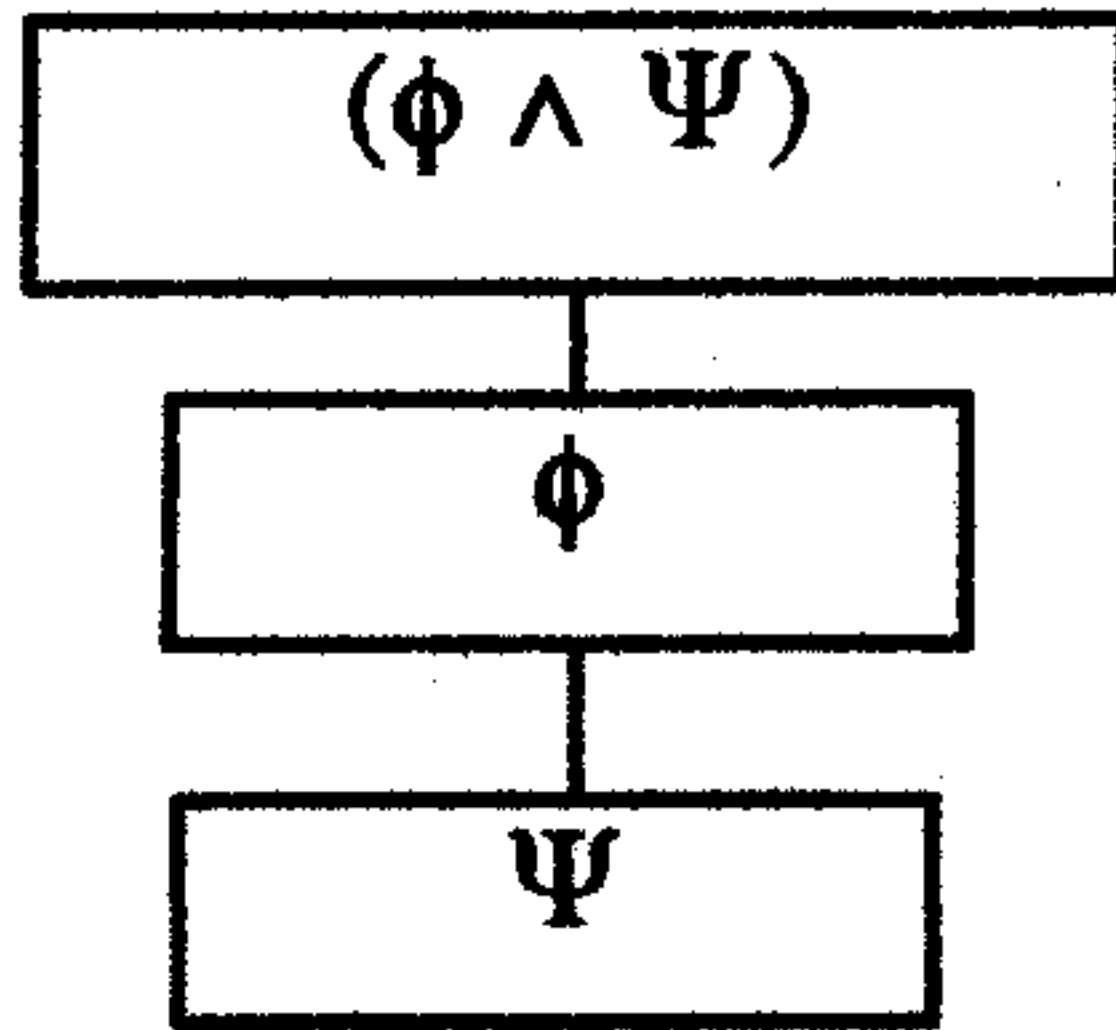
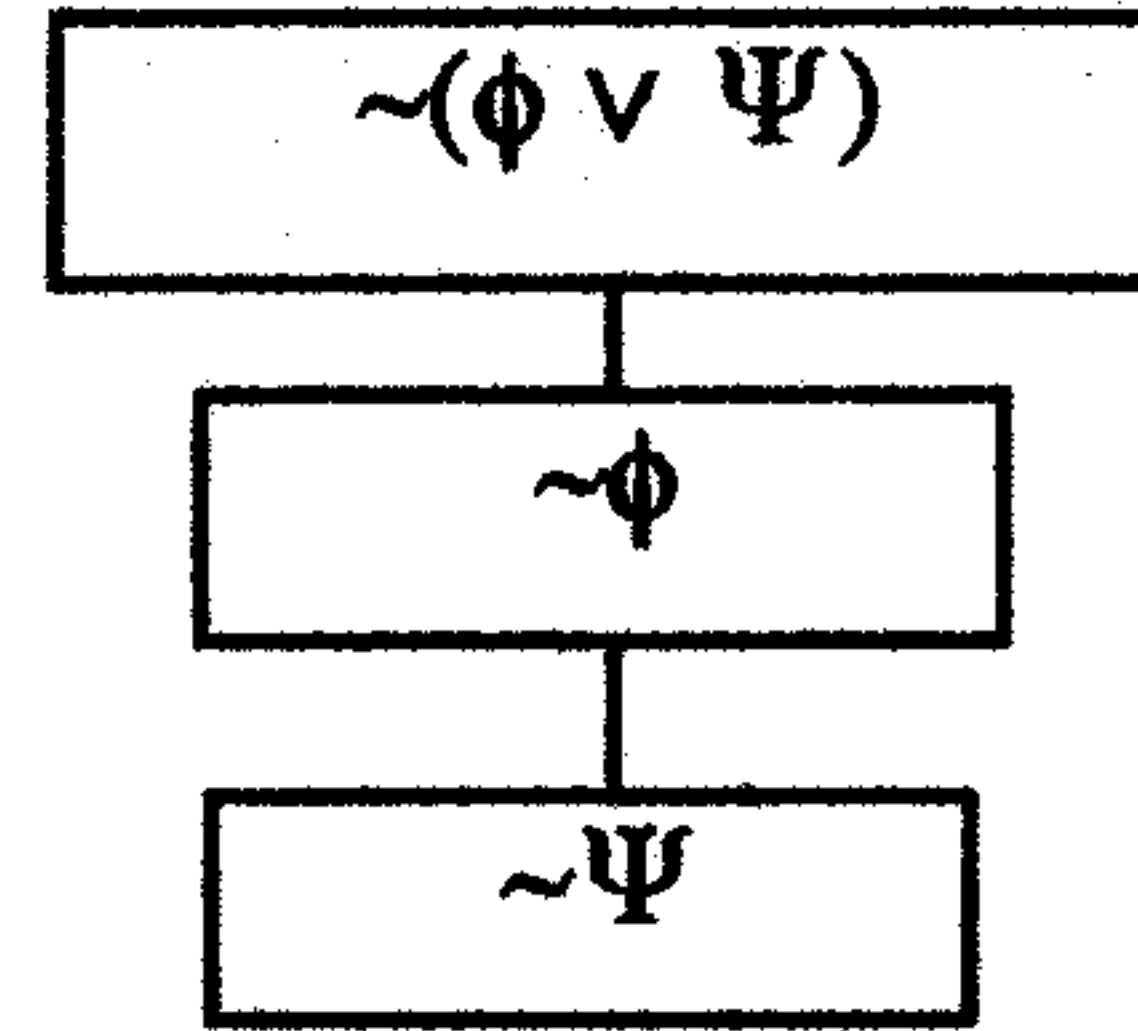
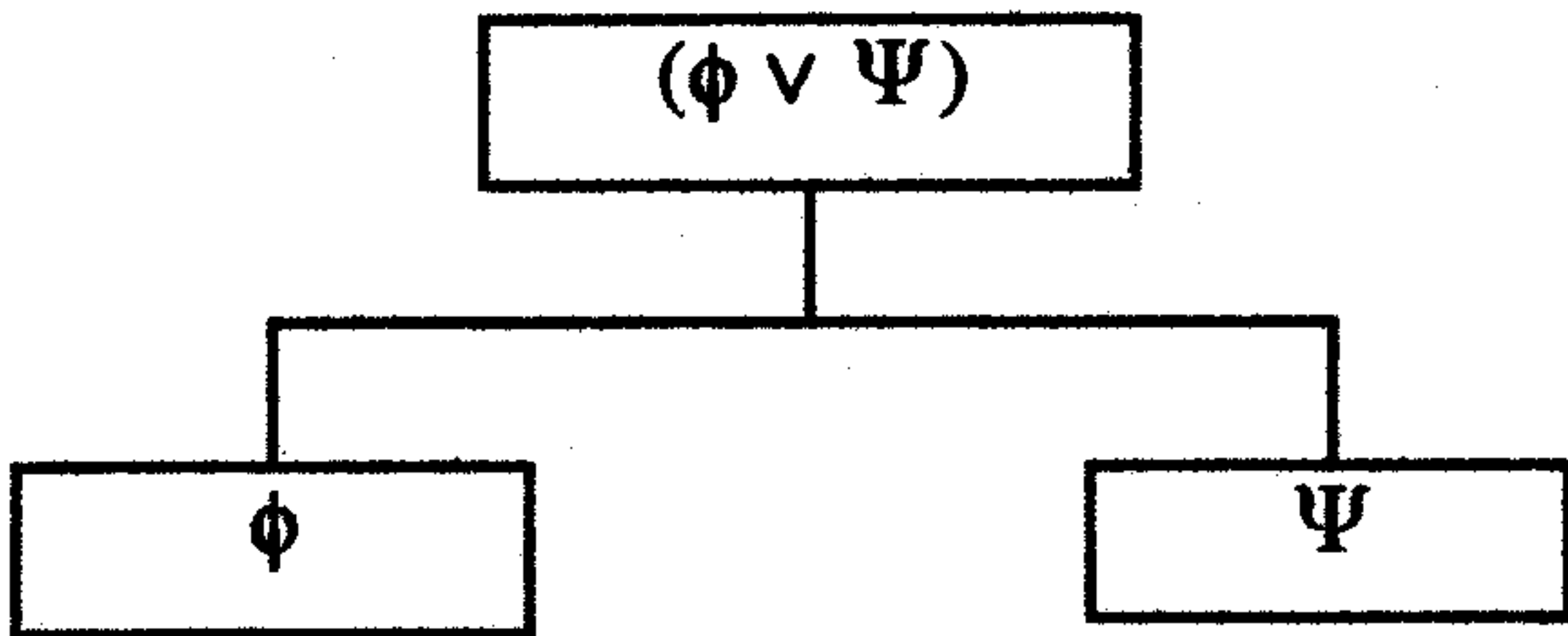


THE BASIC TRUTH TREES

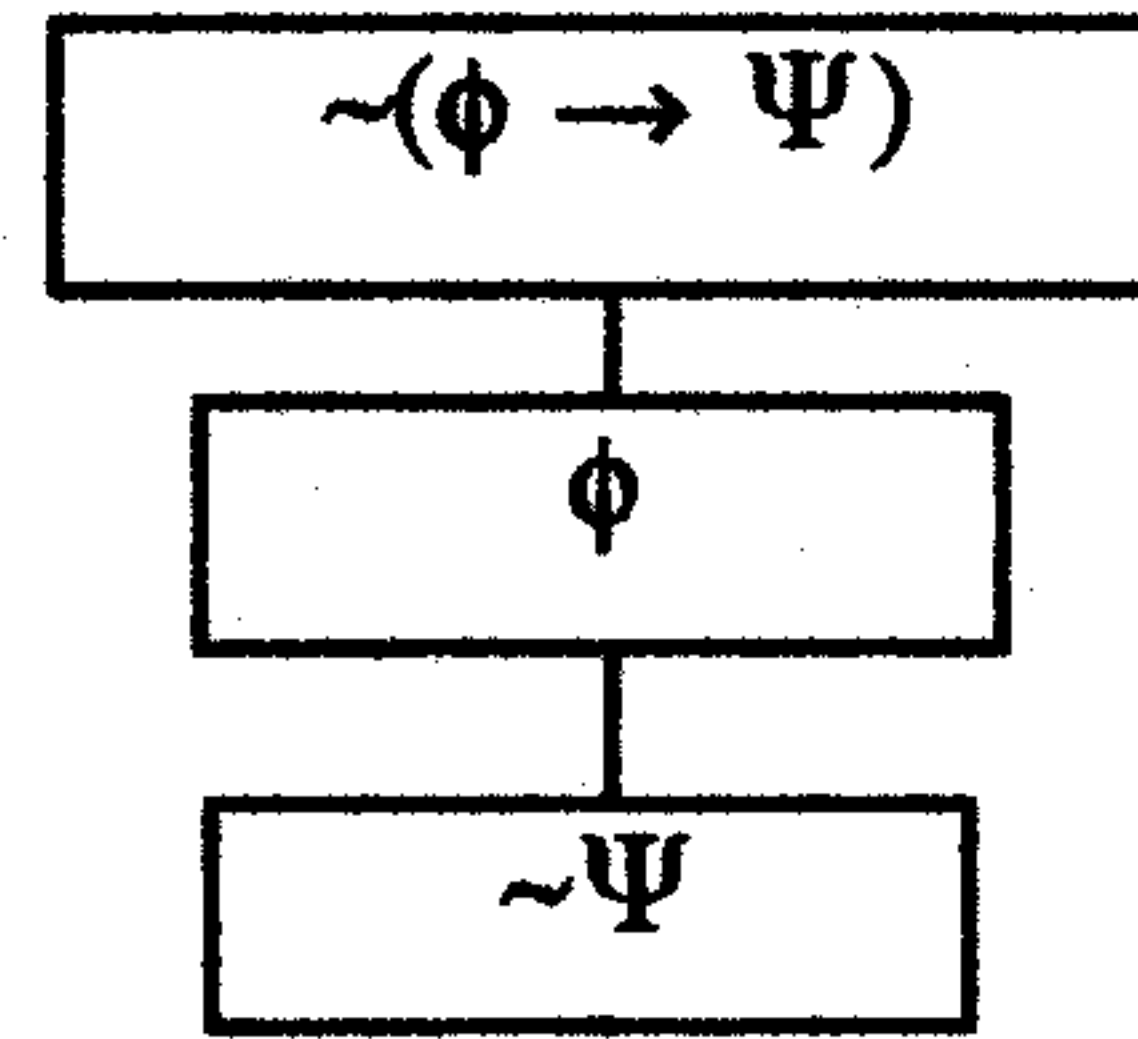
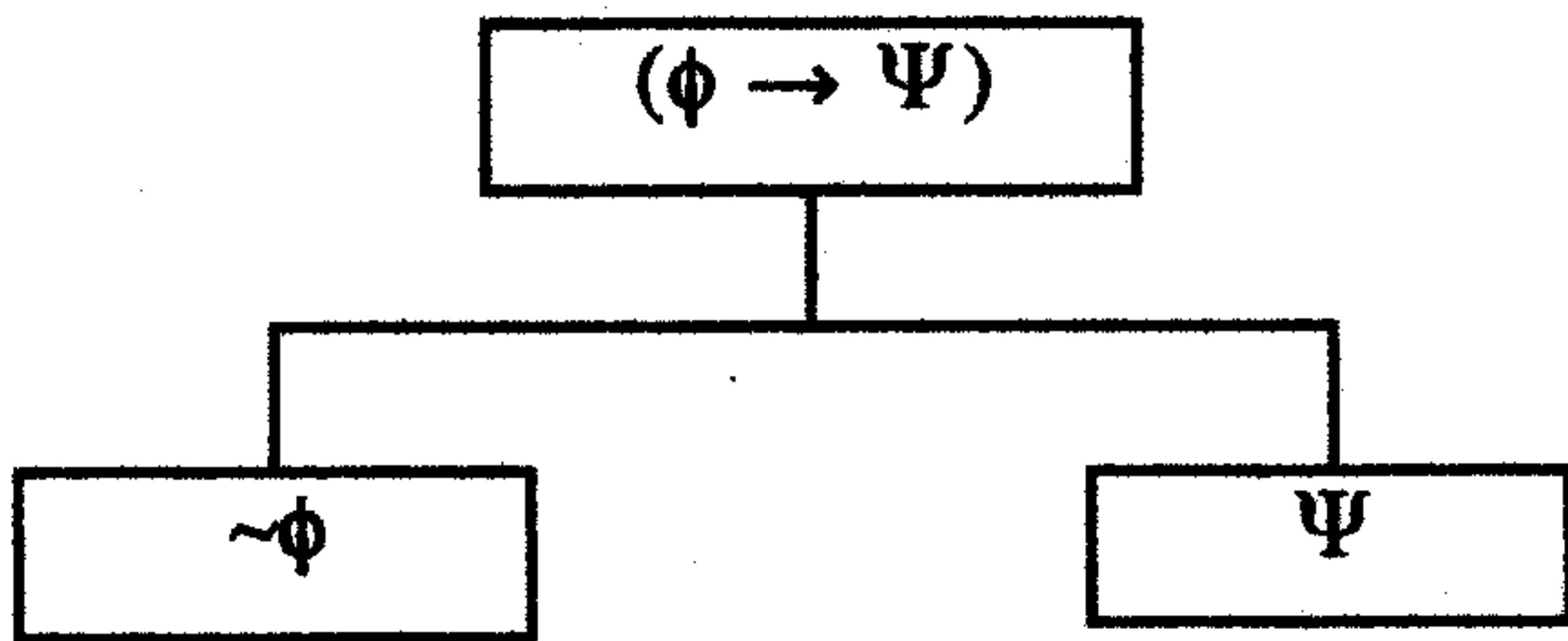
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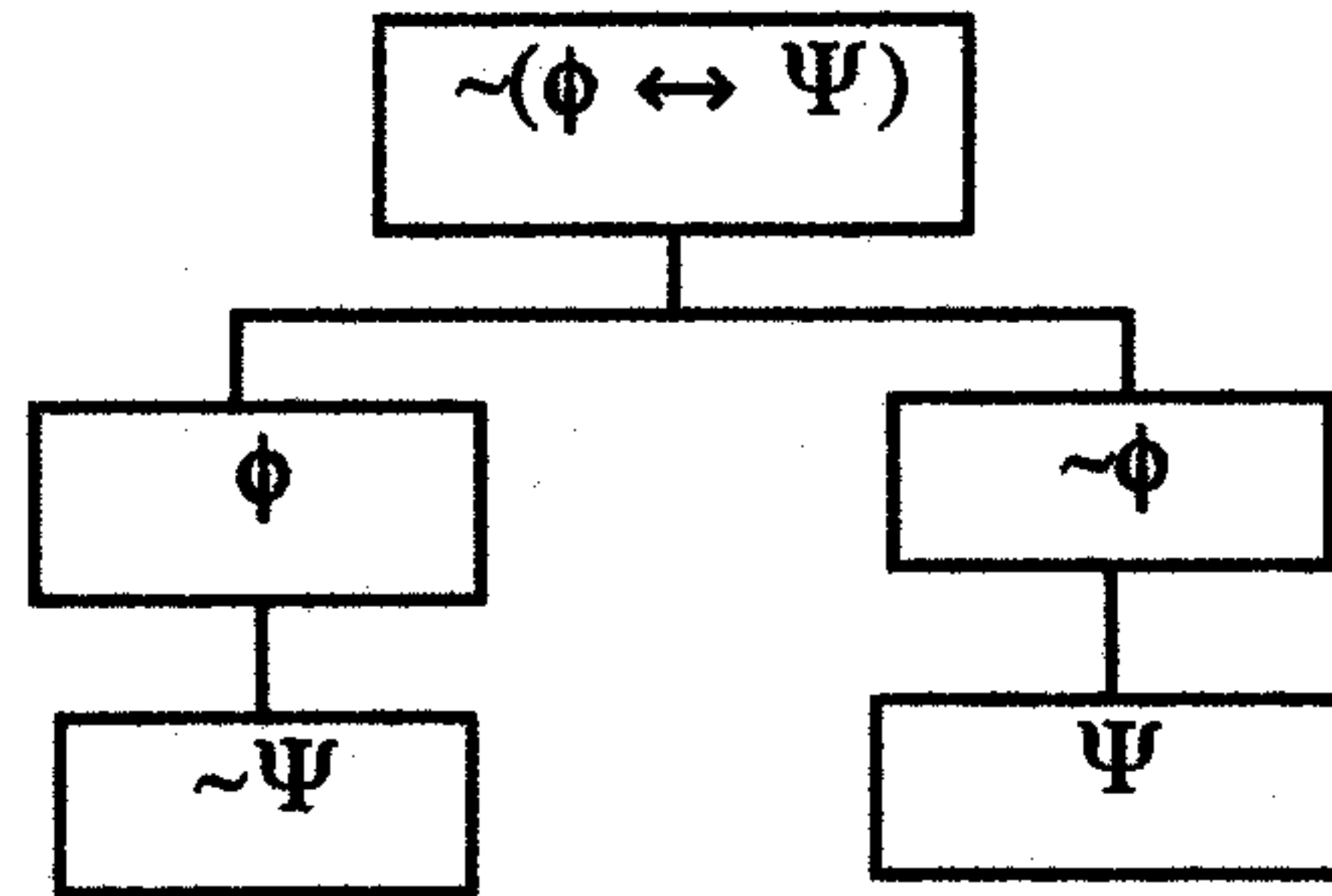
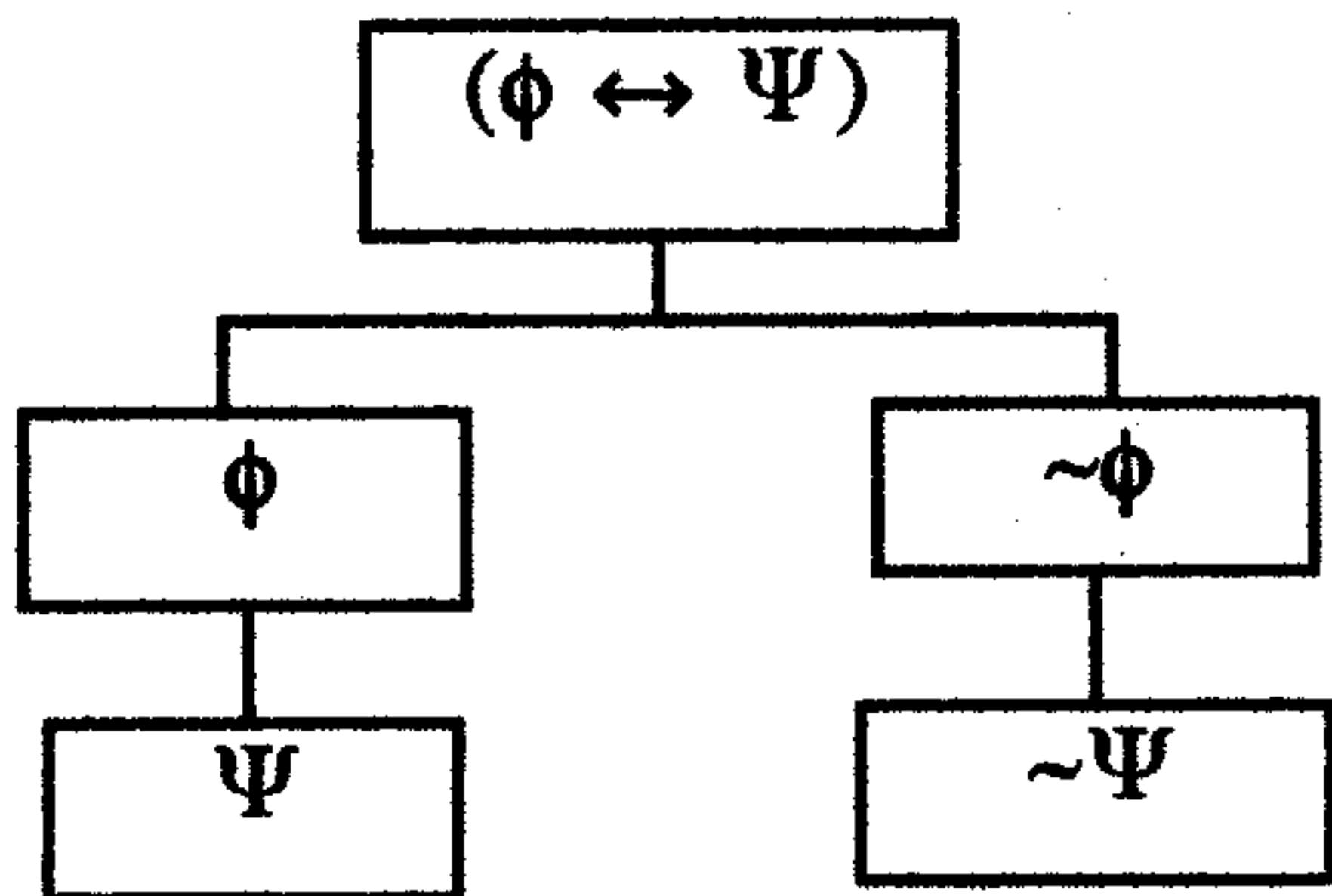
OR



IF... THEN



IF AND ONLY IF



To test an argument for validity, diagram the premises and the **negation** of the conclusion. Check whether there are any open paths in the tree diagram. If there are open paths then the argument is **INVALID**. If all paths close, then the argument is **VALID**. If it is invalid then the open paths enable you to list the assignments of truth values to the sentence letters for which all premises are true and the conclusion false.