

4.1.s. Summary

While the logical word *or* is grammatically similar to *and*, its logical role is to weaken claims by hedging them with a second alternative rather than to strengthen them by adding with a second assertion. This difference from conjunction is expressed by the truth table of the connective **disjunction**, according to which a disjunction is true when at least one true sentence among its components, which are called **disjuncts**. The symbol \vee (**logical or**) is our notation for the operation of disjunction, and its scope is marked by parentheses. Alternatively, we can write a disjunction $\phi \vee \psi$ as **either** ϕ **or** ψ , where **either** serves (like **both** with conjunction) to indicate scope.

The truth of a disjunction when both its components are true distinguishes **inclusive disjunction** from another logical form, **exclusive disjunction**, that forms compounds that are true only when exactly one component is true. While English sentences stated with *or* often convey the idea that two alternatives are not both true, it can be argued that this information is conveyed as an implicature rather than an implication and that, as far as its truth conditions are concerned, the English word *or* may be taken as a sign of inclusive disjunction.

As is true of conjunction, there are cases where a word like *or* marking disjunction appears in a sentence but the sentence cannot be analyzed as a disjunction due to our inability to replace pronouns by their antecedents. Also, English has **serial disjunctions** just as it has serial conjunctions; and serial disjunction in English can be mimicked to some degree by **run-on disjunctions**, which suppress parentheses. Disjunction can be expressed in English by the phrase *at least one*, one of the group of related phrases indicating numerical compounding operations. In some cases, sentences containing these phrases can be analyzed by employing disjunction along with conjunction and negation.

Finally, disjunction provides an alternative, and more natural, way of analyzing *neither-nor* claims.