

3.1.1. Connectives

The connective we will study in this chapter is **negation**, which is associated with the English word *not*. As has been the case with *conjunction*, we will use the term *negation* also for the sentences produced by the operation of negation. We will represent the form of such sentences symbolically using \neg (the **not sign**) as our sign for negation so that $\neg \phi$ is the negation of ϕ . To indicate negations using English, we will use **not** as an alternative to \neg , writing it, too, in front of the negated sentence so that, in this notation, **not** ϕ is the negation of ϕ .

The use of the term *connective* for negation is standard but in some ways not very apt. The word *not* in English is not a combining operation; it is not a conjunction (in the grammatical sense) that serves to connect clauses but instead an adverb, a modifier of a single clause. Thus it would be a mistake to associate the term *connective* too closely with the ideas of connection or combination. A **connective** is better thought of as an operation that forms or generates a sentence from one or more sentences. This operation may combine or modify, or do both.

We will extend the terminology used for conjunction and refer, however inaptly, to any sentence generated by a connective as “compound” and refer to the one or more sentences it is generated from as “components.” When analyzing English sentences, the ultimate components we encounter will be the sentences whose logical forms we do not describe; that is, they are the unanalyzed residue of our analysis.