

Semantics: A Coursebook

Chapter 4: Logic

Unit 12: About Logic

Logic deals with meanings in a language system, most centrally with propositions (it does not apply to utterances). It provides rules for calculation which may be used to derive actions from goals and assumptions.

Words like *and*, *or*, *not*, *if*, *every* and *some* are classified as the *logical vocabulary*. The first three are called *connectives*.

A sentence's logical form may be very different from its grammatical form.

Modus Ponens is a rule of logic stating that if $P \implies Q$, and P is true, then Q is true.

Unit 13: A Notation for Simple Propositions

We write predicators in capital letters and their arguments in small letters. The subject comes before the predicator and all other arguments after.

The identity predicate is represented by the = symbol.

Every *simple* proposition is representable by a single predicator, drawn from the predicates in the language, and a number of arguments, drawn from the names in the language.

Unit 14: Connectives: *And* and *Or*

Unit 15: More Connectives