

## Object and metalanguages

When we talk about a language we call that language the **object language**. A **metalanguage** is a language used to describe some object language.

When we are developing a formal logical language (which we may call SL or PL for ‘sentential’ and ‘propositional’ logic respectively), the formal language is the object language and natural language (e.g. English) is the metalanguage.

### Demonstration

If we talk about German in English, German in the object language and English is the metalanguage.

## Use and mention

There is an associated distinction: that of use and mention.

When we create an expression in a language we are said to *use* that language. When we remark upon said expression we are said to be *mentioning* the language. This distinction may correspond to the object and metalanguage difference above but doesn’t have to; use and mention can happen in the same language. For example:

`‘London’ is the word that denotes the capital of the UK.`

## Metavariables

A metalinguistic variable (metavariable for short) is an expression in the meta-language that is used to talk generally about expressions of the object language. The convention in these notes will be to embolden single letters when these letters are used as metavariables.

For example, instead of saying *‘ $P \ \& \ Q$ ’ is an expression comprising two atomic sentences and a conjunction* we might say  ***$P$**  is an expression comprising two atomic sentences and a conjunction*. In this instance  **$P$**  is a metavariable in the metalanguage mentioning the expression  $P \ \& \ Q$  in the object language