

Linguistic modality

For modality signaled with grammatical affixes, see [Grammatical mood](#).

In standard formal approaches to modality, an utterance expressing modality can always roughly be paraphrased to fit the following template:

(1) According to [a set of rules, wishes, beliefs,...] it is [necessary, possible] that [the main proposition] is the case.

The set of propositions which forms the basis of evaluation is called the **modal base**. The result of the evaluation is called the **modal force**. For example the utterance in (2) expresses that, according to what the speaker has observed, it is necessary to conclude that John has a rather high income:

(2) John must be earning a lot of money.

The modal base here is the knowledge of the speaker, the modal force is necessity. By contrast, (3) could be paraphrased as ‘Given his abilities, the strength of his teeth, etc., it is possible for John to open a beer bottle with his teeth’. Here, the modal base is defined by a subset of John’s abilities, the modal force is possibility.

(3) John can open a beer bottle with his teeth.

A more elaborate account of formal semantic approaches to modality is given in section 1.

Cross-linguistically, modality can be expressed by a variety of means, such as **auxiliary verbs** as in the examples (2) and (3), verbal morphology (**mood**) or adverbs. An overview of the various modal expressions across languages is given below in section 2.

Typological approaches to modality usually favour a slightly wider definition of modality and also include meanings which do not fit the template in (1) exactly. Section 3 provides an overview over the range of meanings commonly associated with modality.

1 Semantic accounts

Semantic approaches dealing with modality are traditionally based on the principles of modal logic. Both work

with the notion that propositions can be mapped to sets of possible worlds, that is, a proposition can be defined as the set of worlds in which that proposition is true. For example, the proposition ‘the earth is flat’ corresponds to the set of possible worlds in which the earth is in fact flat.

In this framework, modal expressions such as *must* and *can* are then analyzed as quantifiers over a set of possible worlds. This set of worlds is given by the modal base and is said to be *the set of accessible worlds*: For example, in sentence (2) above, the modal base is the knowledge the speaker has in the actual world. Therefore, the set of accessible worlds is defined by the information the speaker has about John. Assume for example that the speaker knows that John just bought a new luxury car and has rented a huge apartment. The speaker also knows that John is an honest person with a humble family background and doesn't play the lottery. The set of accessible worlds is then the set of worlds in which all these propositions which the speaker knows about John are true.

The notions of **necessity** and **possibility** are then defined along the following lines: A proposition p follows necessarily from the set of accessible worlds, if all accessible worlds are part of p (that is, if p is true in all of these worlds). Applied to the example in (2) this would mean that in all the worlds which are defined by the speaker’s knowledge about John, it is the case that John earns a lot of money (assuming there is no other explanation for John’s wealth).

In a similar way a proposition p is possible according to the set of accessible worlds (i.e. the modal base), if some of these worlds are part of p .

For further reading, see for example [Kratzer 1991](#), [Kaufmann et al. 2006](#) and [Portner 2009](#).

2 Ways of expressing modality

2.1 Verbal Morphology

Main article: [Grammatical mood](#)

In many languages modal categories are expressed by verbal morphology. If these verbal markers of modality are obligatory in a language, they are called *mood* markers. Well-known examples of moods in some European languages are referred to as subjunctive, conditional and indicative as illustrated below with examples from

French, all three with the verb *avoir* ‘to have’. As in most Standard European languages, the shape of the verb conveys not only information about modality, but also about other categories such as person and number of the subject.

An example for a non-European language with a similar encoding of modality is Manam. Here, a verb is prefixed by a morpheme which encodes number and person of the subject. These prefixes come in two versions, one *realis* version and one *irrealis* version. Which one is chosen depends on whether the verb refers to an actual past or present event (*realis*), or merely to a possible or imagined event (*irrealis*) (see Elliott 2000).

2.2 Auxiliaries

Main article: Modal verb

Modal auxiliary verbs, such as the English words *may*, *can*, *must*, *ought*, *will*, *shall*, *need*, *dare*, *might*, *could*, *would*, and *should*, are often used to express modality, especially in the Germanic languages.

2.3 Lexical expression

Verbs such as “want” can be used to express modality lexically, as can adverbs.

2.4 Other

Complementizers (e.g. Russian) and conjunctions (e.g. Central Pomo, see Mithun 1995) can be used to convey modality.

3 Modal Categories

Many different kinds of modal interpretations have been observed and studied, resulting in a variety of typologies. What follows below is one of the many ways that modality has been classified. Only broad categories have been distinguished below: the reader is referred to the main articles and the references for more detailed discussions.

3.1 Realis vs. Irrealis

The closely related *realis*, *declarative*, and *evidential* moods refer to situations that actually exist, are claimed to exist, or are inferred to exist. In contrast, *irrealis* moods refer to situations that are not known to exist. Two common *irrealis* moods are the *conditional mood*, stating what would happen under a certain condition or conditions (expressed periphrastically in English as *would* + main verb),

and the *subjunctive mood*, stating the speaker’s preferences for what should occur (such as *he leave* in the English *I demand that he leave*) or hypotheticals (such as English *If I were to go,....*).

Counterfactuals refer to things that are contrary to the actual situation. In English, counterfactuals are expressed in “if”-clauses by using a tense form that normally refers to a time prior to the time actually semantically referred to in the *if*-clause. For example, *If I knew that, I wouldn’t have to ask* contains the counterfactual *If I knew*, which refers to the present tense despite the form of the verb, and which denies the proposition “I know that”. This contrasts with the construction *If I know that,....*, which is not a counterfactual because it means that maybe I know it and maybe I don’t (or maybe I will know it, and maybe I will not). Likewise, *If I had known that, I would have gone there* contains the counterfactual *If I had known*, denying the proposition that I knew; despite the *pluperfect* verbal construction, the time referred to is the past, not the past-of-the-past.

3.2 Epistemic vs. deontic modality

Main articles: Epistemic modality and Deontic modality

Epistemic modals are used to indicate the possibility or necessity of some piece of knowledge. In the epistemic use, modals can be interpreted as indicating inference or some other process of reasoning involved in coming to the conclusion stated in the sentence containing the modal. However, epistemic modals do not necessarily require inference, reasoning, or evidence. One effect of using an epistemic modal (as opposed to not using one) is a general weakening of the speaker’s commitment to the truth of the sentence containing the modal. However, it is disputed whether the function of modals is to indicate this weakening of commitment, or whether the weakening is a by-product of some other aspect of the modal’s meaning.

Examples of the expression of epistemic modality in English are: *he might be there* (low probability, substantial doubt), *He may be there* (possibility), *He should be there by now* (high probability), and *He must be there by now* (certitude, no doubt).

In contrast, *deontic modality* is concerned with possibility and necessity in terms of freedom to act (including ability, permission, and duty). English examples include *She can go* (ability), *You may go* (permission), *You should go* (request), and *You must go* (command). In English as in many other languages, some of the same words are used for deontic modality as for epistemic modality, and the meaning is distinguished from context: *He must be there by now* (epistemic) versus *He must be there tomorrow at noon* (deontic).

4 See also

- Deontic logic
- Epistemology
- Evidentiality
- Modality (semiotics)
- Modal logic
- Tense–aspect–mood
- English modal adverbs at Wiktionary

5 References

6 External links

- Modality and Evidentiality
- What is mood and modality? SIL International, Glossary of linguistic terms.

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