

Modality Assignment

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1 Intro

Thanks to Kate Kearns for many of these examples.

2 Basic

Write the truth definitions using possible worlds for these sentences. In each case identify the kind of modality and if there is more than one possible, give truth definitions for both kinds.

- (1)
 - a. Necessarily, a bachelor is unmarried.
 - b. A Romanian could have invented the hypodermic needle.
 - c. If wishes were horses then beggars would ride.
 - d. It is sure to rain tonight.
 - e. Students' laptops may be brought to the dance.
 - f. Left-turning traffic must yield.

3 Would

Does *would* have the same kind of meaning in the following? What are the meanings? Is one modal? Are both modal?

- (2)
 - a. If the weather had been better the picnic would have been a success.
 - b. We knew Jack would arrive on time.

Ditto for *could*.

- (3) a. If she had studied harder she could have passed the semantics exam.
b. She could bench press close to 300 pounds.

4 Necessary truth

Identify the ones that are necessary truths. If a sentence is not necessarily true, describe a possible world in which it is not true.

- (4) a. George Bush won the 2000 election.
b. All men are mammals.
c. A solid body occupies space.
d. A dog is four-legged.
e. A dog is a canine.
f. Orange is the color of oranges.

5 Meaning and possible worlds

In the homework assignment previously we identified the meaning of a sentence (or at least its sense, or intension) with the set of worlds in which it is true.

What can you say about the meanings of the following sentences, *assuming this theory*?

- (5) a. Either God exists or God does not exist,
b. Every rose is a rose.
c. The sum of two and two is four.

6 Modality and truth

Give the truth definitions for the sentences below, assuming the possible worlds theory of modality. Discuss the adequacy of this account.

- (6) a. If squares were circles then cubes would be spheres.
b. If squares were circles then cubes would be cylinders.
c. If Bizet and Verdi were compatriots, Verdi would be French.
d. If Bizet and Verdi were compatriots, Bizet would be Italian.