

(10 points)

(M) No smoke without fire (1/3)

Think about the meaning of the following sentence:

(1) The 2010 Winter Olympics were in Canada.

Assuming that we only know sentence 1 to be true, is sentence 2 necessarily true?

(2) The 2010 Winter Olympics were in Vancouver.

The answer is no. Assuming we only know sentence 1 to be true, the 2010 Winter Olympics could have taken place in any Canadian city, but not necessarily in Vancouver.

Now examine the relationship between sentences 3 and 4. Assuming sentence 3 is true, is sentence 4 now necessarily true?

(3) The 2010 Winter Olympics were in Vancouver.

(4) The 2010 Winter Olympics were in Canada.

Now the answer is yes. Since Vancouver is a Canadian city, any event which occurs in Vancouver necessarily occurs in Canada.

The logical relationship which holds between sentences 3 and 4 is called an *entailment*. In formal terms, sentence A entails sentence B if whenever A is true, B is necessarily true. The entailment relationship is typically represented graphically this way: A \Vdash B.

Here are some more examples of the entailment relationship between sentences:

(5) Shaun White is a Winter Olympian \Vdash Shaun White is an Olympian

(6) Shaun White is an Olympian \Vdash Shaun White is an athlete

(7) Shaun White won a gold medal \Vdash Someone won a gold medal

Notice that the entailment relationship must hold in the specified direction but will not necessarily hold in both directions. So, sentence 3 entails sentence 4 even though sentence 4 does not entail sentence 3.



(M) No smoke without fire (2/3)

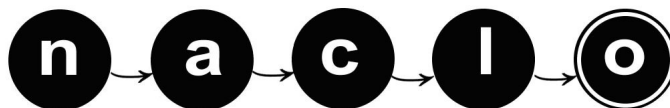
Now examine the relationship between sentences 8 and 9.

- (8) I did not see Shaun White win the gold medal in the 2010 Winter Olympics.
- (9) Shaun White won the gold medal in the 2010 Winter Olympics.

Sentences 8 and 9 illustrate a relationship called *presupposition*. In this pair of sentences, the information presented in sentence 9 is what the speaker assumes (or presupposes) to be the case when uttering sentence 8. That is, to say “*I did not see Shaun White win the gold medal*” assumes the belief that Shaun White won a gold medal. In formal terms, sentence A presupposes sentence B if A not only implies B but also implies that the truth of B is somehow taken for granted. A presupposition of a sentence is thus part of the background against which its truth or falsity is judged. The presupposition relationship is typically represented graphically this way: A >> B

Here are some more examples of presuppositions (where the first sentence in each pair presupposes the second):

- (10) I regret not seeing Shaun White’s gold medal run >> Shaun White had a gold medal run
- (11) Shaun White continues to rule the halfpipe >> Shaun White had been ruling the halfpipe
- (12) Snowboarding is now an Olympic sport >> Snowboarding was once not an Olympic sport



(M) No smoke without fire (3/3)

MI. For any given pair of sentences, the entailment and presupposition relationships may or may not hold, together or separately.

For each of the following possible combinations, your task is to provide one example of a pair of sentences with an explanation of your reasoning for proposing your pair of sentences as a valid and convincing example in each case.

a. A pair of sentences in which sentence A **neither entails nor presupposes** sentence B.

b. A pair of sentences in which sentence A **entails and presupposes** sentence B.

c. A pair of sentences in which sentence A **presupposes but does not entail** sentence B.

d. A pair of sentences in which sentence A **entails but does not presuppose** sentence B.

