LING2006 Semantics
Tutorial: Sentence semantics I

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Based on tutorial handouts by Dr. Zhuo Chen

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- I will not involve truth values as much as I can when covering today's materials
- However, if you prefer a mathematical way of presenting these contents, just let me know and I'll try to explain them in a more formal way

Please select all answers that apply

- Regarding sentences and propositions
  - Ⓐ The denotation of a sentence essentially is the truth value of the proposition expressed by this sentence.
  - Ⓑ All sentences are synthetic.
  - Ⓒ The truth value of a tautological proposition is context-dependent.
  - Ⓓ Knowing the meaning of a sentence means that we know whether or not it is true in any given context.

Please select all answers that apply

- Regarding sentences and propositions
  - (A) The denotation of a sentence essentially is the truth value of the proposition expressed by this sentence.
  - (B) All sentences are synthetic.
  - (C) The truth value of a tautological proposition is context-dependent.
  - (D) Knowing the meaning of a sentence means that we know whether or not it is true in any given context.

    (only those that are true)

Please select all answers that apply

- Regarding relations among different propositions
  - **A** Synonymous propositions presuppose each other.
  - **B** Incompatible propositions cannot be false simultaneously.
  - **C** A presupposition triggered by a presupposition trigger is necessarily part of the common ground.
  - **D** If a proposition p entails a proposition q, then whenever q is false, p must be false as well.

Please select all answers that apply

- Regarding relations among different propositions
  - **A** Synonymous propositions presuppose each other.
    (entail)
  - **B** Incompatible propositions cannot be false simultaneously.
  - **C** A presupposition triggered by a presupposition trigger is necessarily part of the common ground.
    (presupposition failure)
  - **D** If a proposition p entails a proposition q, then whenever q is false, p must be false as well.

Please select all answers that apply

- Regarding the common ground
    - Ⓐ It consists of knowledge about the world
    - Ⓑ It consists of knowledge that is observable in the speech situation
    - Ⓒ It consists of facts that have been mentioned earlier in that same conversation
    - Ⓓ All of the above

Please select all answers that apply

- Regarding the common ground
  - A It consists of knowledge about the world
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- Proposition p (e.g., a) **entails** proposition q (e.g., b) iff:
  - Whenever p is true, it is logically necessary that q must also be true;
  - Whenever q is false, it is logically necessary that p must also be false;
  - These relations follow directly from the meanings of p and q, and do not depend on the context of the utterance.

a. Thor takes the MTR to CUHK everyday.

b. Thor goes to CUHK everyday.

Review

a. Thor takes the MTR to CUHK everyday.

b. Thor goes to CUHK everyday.

- Diagnostics for entailment:

    i. # Thor takes the MTR to CUHK everyday but he doesn't go to CUHK everyday.

    ii. # Thor takes the MTR to CUHK everyday but I'm not quite sure whether he goes to CUHK everyday.

    iii. # Thor takes the MTR to CUHK everyday and he goes to CUHK everyday.

- Asserting the entailing proposition (a) while denying the entailed proposition (b) leads to a contradiction, illustrated in (i).

- It would be highly unnatural to assert the entailing proposition (a) while expressing doubt about the entailed proposition (b), illustrated in (ii).

- It would be unnaturally redundant to assert the entailing proposition (a) and then state the entailed proposition as a separate assertion (b), illustrated in (iii).

Use at least one specific diagnostic to determine whether there exists entailment relation between the two propositions in (1-3).

1. a. Elon Musk fired Twitter CEO Parag Agrawal.
   b. Parag Agrawal is no longer the CEO of Twitter.

2. a. Mirror are more popular than Grasshopper.
   b. Grasshopper are less popular than Mirror.

3. a. It was Loki who stole Thor's hammer.
   b. Loki stole Thor's hammer.

1. a. Elon Musk fired Twitter CEO Parag Agrawal.
   b. Parag Agrawal is no longer the CEO of Twitter.
   # Elon Musk fired Twitter CEO Parag Agrawal but Parag Agrawal is still the CEO of Twitter

2. a. Mirror are more popular than Grasshopper.
   b. Grasshopper are less popular than Mirror.
   # Mirror are more popular than Grasshopper, and Grasshopper are less popular than Mirror.
   Note that (2a) and (2b) actually mutually entail each other: "#Grasshopper are less popular than Mirror, but I am not sure whether Mirror are more popular than Grasshopper". Hence these two propositions are synonymous.

3. a. It was Loki who stole Thor's hammer.
   b. Loki stole Thor's hammer.
   # It was Loki who stole Thor's hammer, and Loki stole Thor's hammer.
   (a: cleft construction indicating exclusiveness; so a entails b but b does not entail a)

- **Common ground**: information that
    - Both the speaker and hearer know or believe, and
    - Both the speaker and hearer know that they have in common
- **Presupposition**: Information which is **linguistically encoded** as being **part of the common ground** at the time of utterance
- **Trigger**: The word or grammatical construction which indicates the presence of a presupposition.

1. a. Loki tried to steal Thor's hammer again.
   b. Loki tried to steal Thor's hammer before.
2. a. It was Loki who stole Thor's hammer.
   b. Someone stole Thor's hammer.

Entailment vs. Presupposition

- What happens if we negate the entailing/presupposing proposition? In particular, would the originally entailed/presupposed proposition remain to be true?

1. a. It was Loki who stole Thor's hammer.
   b. It was**n't** Loki who stole Thor's hammer.

2. a. Loki stole Thor's hammer.
   b. Someone stole Thor's hammer.

- Therefore, presupposition but not entailment may still hold under negation (more distinctions to be introduced in this Friday's lecture).

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