Diagnostics for entailment, presupposition, and implicature

Ling 120C: Semantics I
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Truth-conditional operators

- Instructions: Embed p in a negated statement, question, or conditional antecedent (*if*-clause). Check how this affects the entailment relationship between p and q.
- Best use: Distinguish between (truth-conditional) entailments and (non-truth-conditional) presuppositions.

Examples

p1: Peanut is a hamster.
q1: Peanut is a mammal. — entailment

p2: Peanut knows he is a hamster.
q2: Peanut is a hamster. — presupposition

- When we apply the test to *p1* and *q1*, the entailment relationship is lost.
  - Peanut is not a hamster. ⊭ Peanut is a mammal.
  - Is Peanut a hamster? ⊭ Peanut is a mammal.
  - If Peanut is a hamster, he must be very cute. ⊭ Peanut is a mammal.
- When we apply the test to *p2* and *q2*, the entailment relationship is preserved.
  - Peanut doesn't know he is a hamster. ⊨ Peanut is a hamster.
  - Does Peanut know he is a hamster? ⊨ Peanut is a hamster.
  - If Peanut knows he is a hamster, he's very smart. ⊨ Peanut is a hamster.

Hey, wait a minute!

- Instructions: Make a mini-dialogue where A says p and B says 'Hey, wait a minute! I had no idea that q.' Check whether the HWAM response is felicitous.
- Best use: Identify presuppositions.

Examples

p3: Aster brewed a pot of tea.
q3: A pot of tea was brewed. — entailment

p4: Have some more tea, Aster.
q4: Aster has already had some tea. — presupposition

- A HWAM response to *p3* is infelicitous because *p3* entails *q3*.
  - A: Aster brewed a pot of tea.
    B: #Hey, wait a minute! I had no idea a pot of tea was brewed.

- A HWAM response to *p4* is felicitous because *p4* presupposes *q4*.
  - A: Have some more tea, Aster.
    B: Hey, wait a minute! I didn't know they'd already had any tea.

Reinforceability and cancelability

- Instructions: Conjoin p and q to test for reinforceability or p and $\neg q$ to test for cancelability.
- Best use: Identify implicatures.

Examples

p5: Fatima graduated from college.
q5: Fatima finished her undergraduate degree. — entailment

p6: Fatima overslept and missed graduation.
q6: Fatima overslept and then/therefore missed graduation. — implicature

- $p5 \wedge q5$ is redundant and $p5 \wedge \neg q5$ is contradictory.
  - #Fatima graduated from college, and she finished her undergraduate degree.
  - #Fatima graduated from college, but she didn't finish her undergraduate degree.
- $p6 \wedge q6$ is not redundant and $p6 \wedge \neg q6$ is not contradictory.
  - Fatima overslept and missed graduation, in that order.
  - Fatima overslept and missed graduation, but not in that order. The events were unrelated.

Diagnostics beyond their best use: Your mileage may vary

(1) *p7:* Peanut has been running on his wheel for hours!
q7: Peanut loves his hamster wheel. — implicature

- truth-conditional operators
  Peanut has not been running on his wheel for hours. $\nrightarrow$ Peanut loves his hamster wheel.
- HWAM
  A: Peanut has been running on his wheel for hours!
  B: #Hey, wait a minute! I had no idea that Peanut loves his hamster wheel.

(2) *p8:* Elphaba is still green.
q8: Elphaba has been green for some time. — presupposition

- reinforceability
  ?Elphaba is still green, and she has been green for some time.
- cancelability
  #Elphaba is still green but she hasn't been green for some time.