

Assignment 6

Chris Potts, Ling 130a/230a: Introduction to semantics and pragmatics, Winter 2024

Distributed Feb 27; due Mar 5

1 Conversational implicature? [2 points]

The goal of this question is to assess the **reinforceability** and **cancellability** tests for conversational implicatures. For each question, there is a sentence and a target meaning. For each test (reinforceability, cancellability), you should provide the following:

- The example that results from applying the test to the sentence to assess the status of the target meaning.
- A judgment as to whether the example supports or challenges the claim that the target meaning, where conveyed, is a conversational implicature. (You get full credit if you provide a judgment; we do not presuppose that any particular judgment is correct.)

Don't worry if the tests give conflicting results; you can treat each as independent of the other. However, insights about why the tests behave the way they do are always welcome.

i. *Sentence*: Sam refuted the hypothesis that Jesse stole the cookies.

Target meaning: Jesse didn't steal the cookies

ii. *Sentence*: Carol tricked Jesse into eating a worm.

Target meaning: Jesse ate a worm

2 Presupposition? [2 points]

Use the **negation** test and the **interrogative** test to help determine whether (A) presupposes that Carol was in the audience.

(N) Joan noticed that Carol was in the audience.

For each test, provide:

- The example that results from applying the test to (N).
- A judgment as to whether the example supports or challenges the claim that (N) presupposes that Carol was in the audience, along with your reason for reaching this judgment.

Don't worry if the tests give conflicting results; you can treat them each as independent of the others. However, insights about why the tests behave the way they do are always welcome.

3 Maximize presupposition

[2 points]

In a context in which there are exactly two parents, there is a clear intuition that uttering (1a) is fine whereas uttering (1b) is marked:

- (1) a. Both parents cheered.
b. # Every parent cheered.

Both (1a) and (1b) are true in our world, but (1b) seems unusual. Heim (1991)¹ proposes an additional Gricean maxim, commonly referred to as *Maximize Presupposition*, to address this contrast. This proposed maxim states that, given a set of sentences all with identical asserted content, the speaker should choose the one with the strongest (i.e., most informative) true presupposition.

Your task is to use Maximize Presupposition to formulate a Gricean explanation for the strangeness of (1b). In two parts:

- i. Define $\llbracket both \rrbracket$ as a presuppositional quantificational determiner that presupposes that its first argument has cardinality 2 and asserts that its first argument is a subset of its second. In other words, this definition should ensure that (1a) and (1b) have the same assertive content where the presupposition of $\llbracket both \rrbracket$ is met. You can use the definition of $\llbracket neither \rrbracket$ from the ‘Presupposition’ handout as a guide in terms of formatting and formalization.
- ii. Consider a listener who assumes the speaker of (1b) is cooperative in the Gricean sense, obeying Maximize Presupposition, and knowledgeable about the relevant facts. Describe the implicature that this listener is likely to draw and the reasoning that leads to this implicature. (3–5 sentences)

4 Too few gumballs?

[4 points]

Note: this is not required for people doing a final project. Final projectors should answer the next question instead.

Degen and Tanenhaus (2015)² is an important experimental investigation of scalar implicatures. This question asks you to read up to page 684 of the paper and discuss the findings from experiment 1. More specifically:

- i. Read the abstract through once carefully, but don’t get hung up on the details.
- ii. In the introduction, section 1.2 should be familiar from your reading of Grice. Section 1.3 presupposes a lot of background in language processing, so you might just skim it for now. In section 1.4, the “second cue” is the one that matters most for this question. Finally, section 1.5 is vital to read closely, since it describes the experimental paradigm.

¹Heim, Irene. 1991. Artikel und Definitheit. In *Semantik/Semantics: An International Handbook of Contemporary Research*, 487–535. Walter de Gruyter.

²Degen, Judith and Michael K. Tanenhaus. 2015. Processing scalar implicature: A constraint-based approach. *Cognitive Science* 39(4):667–710. This paper is linked from the course homepage.

- iii. Read section 2 (“Experiment 1”) very carefully. The central manipulation is that Degen and Tanenhaus asked participants to rate how natural they found descriptions of the form “You got some gumballs” for different set sizes. The statistical reasoning on page 682 might be new to you, but you can, for now, read it as just supporting the conclusions that they state directly in prose.

The above is just the background reading. Now to the writing you need to do:

- iv. What did they find for set sizes in the subitizing range? (1–2 sentences; “subitizing range” is not defined fully in the paper, but its meaning can be inferred from a careful reading, and the Wikipedia article ‘Subitizing’ is good.)
- v. Why is this finding surprising under the assumption that *some* is a quantificational determiner with the meaning we always give it and a pragmatically enriched meaning “some but not all”? (3–4 sentences)
- vi. How do Degen and Tanenhaus explain this finding? (3–4 sentences)

Final project task

[4 points]

This problem is required only for people doing a final project. Everyone else should answer question 4 instead.

This question asks you to draft an introduction section for your paper. No matter which type of project you are doing (e.g., paper, corpus, implementation), the introduction to the write-up will need to address at least the following questions:

- i. Where are we? That is, what area of semantics and pragmatics are we working in? Answering this question is important for orienting the reader.
- ii. What hypothesis is being pursued? It’s a good sign if you have a sentence that starts with a phrase like “The central hypothesis of this paper is . . .”. You don’t need to be this explicit, but, on the other hand, this is a way of ensuring that you don’t end up saying only vague things about what your hypothesis is. Also, being direct about this can expose a lack of clarity in your own thinking that you can then work through.
- iii. What concepts does your hypothesis depend on? You can’t require your reader to fill in the gaps. Try to place all the building blocks of your hypothesis in a way that supports the hypothesis itself. Sometimes this material is best given after the hypothesis statement, but very often it needs to be given before, so that the hypothesis itself makes sense.
- iv. Why this hypothesis? What broader issues does it address? This will provide further context for your ideas and help motivate your work.
- v. What steps are you taking to address your hypothesis? If you’re designing an experiment, implementing a theory, or creating a corpus, then this is probably an easy question to address:

just describe your plans. If you're discussing existing literature, you'll probably want to summarize what that literature says in relation to your hypothesis – what evidence it offers. In any case, you should be aiming to convince the reader that the information you have to offer will richly inform your hypothesis.

- vi. We would expect the introduction to a completed paper to summarize the key findings as well, in the final paragraphs of the section. If you're discussing existing literature, you can probably do this now, at least in a tentative way. For other kinds of project, you probably don't have findings yet, and you might not have them at all this quarter if you're designing an experiment. Thus, for now, the introduction should close with a clear statement for your expectations: what you think your experiment/implementation/corpus will show, and why you think that.

The paper we read by Levin et al. (on English noun compounds) has an exceptionally good introduction: all of the above questions are addressed clearly in a logical sequence. It's longer than we expect yours to be (as is their whole paper), but it's still a great model.

In writing your introduction (and indeed your whole paper), you should imagine that your reader is a smart, scientifically minded person who hasn't studied semantics and pragmatics. You should *not* imagine that your reader is someone from the teaching team, as that might lead you to presuppose crucial things, which will result in a paper that can't stand on its own as a piece of scholarship.