

Nonce inferences or defaults?

Defaultism

- Weak defaultism: The use of a scalar expression (e.g. “some”) will *normally* give rise to an scalar inference (SI, e.g. “not all”). Horn, Chierchia
 - This is not saying *that* much. For instance, no claim has been made (as yet) about the mechanism(s) underlying weak defaults.
- Strong defaultism = weak defaultism + the claim that SIs are fast and automatic. Levinson
 - There is considerable experimental evidence against this claim, as we will see.

Generalised conversational implicatures (GCIs)

“Sometimes one can say that the use of a certain form of words in an utterance would normally (in the absence of special circumstances) carry such-and-such implicature or type of implicature.” (Grice 1975)

- This is not very helpful, but then there is little reason to believe that the notion of GCIs was important to Grice.
- But the notion of GCI resonates with the intuition that at least some Q-implicatures (i.e. scalars) are defaults.
- From here it is only a short step to the idea that Q-implicatures are encoded in the lexicon.

Defaultism and localism

- Localism: If you are a defaultist it is tempting (though not necessary) to suppose that SIs are associated with scalar expressions *in the lexicon*.
- This entails that SIs will occur in embedded positions:
 - 1 I would like to see Tokyo or Kyoto.
= I would like to see Tokyo or Kyoto but not both.
 - 2 I could show you some of the best places in town.
= I could show you some but not all of the best places in town.
- It is doubtful that these predictions are correct, but we will come back to this issue later.
- For now, we will focus on *strong defaultism*.

All elephants are insects	<i>no</i>
All mammals are elephants	<i>no</i>
All elephants are mammals	<i>yes</i>
Some elephants are insects	<i>no</i>
Some mammals are elephants	<i>yes</i>
Some elephants are mammals	?

B & N interpret their results as implying that SIs take time, and therefore can't be default inferences (in the strong sense).

Some questions remain, however:

- The upper-bounded construal of “some” is more complex than the others. This in itself might explain why negative responses to critical items were slower.
- Why aren't the other “some” items affected by SIs?
- Why do some people yes while others say no? (Different styles of interpretation and/or reasoning?)
- Why do so many people say no, in the first place? (Not expected if SIs don't affect truth conditions.)

Bott and Noveck (2004): Results

All elephants are insects	<i>no</i> : .92	
All mammals are elephants	<i>no</i> : .97	□
All elephants are mammals	<i>yes</i> : .87	□
Some elephants are insects	<i>no</i> : .93	□
Some mammals are elephants	<i>yes</i> : .89	□
Some elephants are mammals	<i>yes</i> : .41	□
	<i>no</i> : .59	□

- SI responses take longer.
- When given less time, subjects give fewer SI responses.
- When given more time, subjects give more SI responses.

Breheny et al. (2006), Exp. 1: Materials

- Upper-bound context (exclusive “or”):
John was taking a university course / and working at the same time. / For the exams / he had to study / from short and comprehensive sources. / Depending on the course, / he decided to read / the class notes or the summary.
- Lower-bound context (inclusive “or”):
John heard that / the textbook for Geophysics / was very advanced. / Nobody understood it properly. / He heard that / if he wanted to pass the course / he should read / the class notes or the summary.

- Upper-bound context (exclusive “or”):
 John was taking a university course / and working at the same time. / For the exams / he had to study / from short and comprehensive sources. / Depending on the course, / he decided to read / the class notes or the summary. 1291 ms
- Lower-bound context (inclusive “or”):
 John heard that / the textbook for Geophysics / was very advanced. / Nobody understood it properly. / He heard that / if he wanted to pass the course / he should read / the class notes or the summary. 1204 ms

- [1] Some/Only some of the consultants had a meeting with the director. 613 / 611
- [2] The director had a meeting with some/only some of the consultants. 628 / 586
- [3] **The rest** did not manage to attend.

- [1] Some/Only some of the consultants had a meeting with the director.
- [2] The director had a meeting with some/only some of the consultants.
- [3] **The rest** did not manage to attend.

Explanation proposed by Breheny et al.:

- The derivation of SIs interacts with topicality:
 With “some of the consultants” in subject position, the discourse is probably about the consultants, and therefore it becomes relevant to know how many of the consultants had a meeting with the director.
- This reasoning doesn’t apply (or is less likely to apply) when “some of the consultants” is not in subject position.

- Breheny et al.'s results argue against cruder varieties of defaultism.
- But there are more sophisticated varieties, as well.

- *In principle*, defaults can be as crude or subtle as you like.
- There is no sharp divide between default inferences and (defeasible) context-dependent expectations.
- This need not spoil the notion of default completely (though it does make things a bit more complicated).
- We can still conclude that, between them, the experimental data argue against the cruder varieties of strong defaultism, such as Levinson's.

Varieties of defaultism

Let A be a scalar expression (e.g., “some”) and B a SI associated with A (e.g., “not all ...”):

- 1 Crude defaultism: A always triggers B.
- 4 Really sophisticated defaultism:
A always triggers B provided:
 - 1 A doesn't occur in a downward entailing environment and
 - 2 A is the grammatical subject and
 - 3 it's not Tuesday.

and so on ...

Weak defaultism

- Thus far, we have looked only at strong defaultism: the view that scalar expressions (a) normally give rise to SIs that (b) are fast and automatic.
- What about weak defaultism: the view that scalar expressions normally give rise to SIs?

The intuitive evidence for weak defaultism is suspect

- If you *ask yourself* whether “Some A are B” would normally suggest that not all A are B, you are setting up a context in which it is *relevant* to establish whether or not all A are B.
- So, whatever your intuitions tell you, you can’t claim that they hold in general.
- This can be illustrated by a simple experiment.

What sort of experiments do we need?

- Materials should be as neutral as possible (e.g. arbitrary or abstract).
- No leading questions.
- A number of experiments like this have been done, and none of them provide support for weak defaultism.

Paradigm effects

Geurts and Pouscoulous (2008)

- Target sentence: “Some of the B’s are in the left box.”
 - Two conditions:
 - *Inference*:
Does it follow that not all the B’s are in the left box?
 - *Verification*:
Is the sentence true in the following situation?
- [B B B C C C] [A A A]
- Results:
 - Inference condition: 65% *yes*
 - Verification condition: 32% *no*

Paris (1973)

- Acquisition study with disjunctive sentences with arbitrary content, such as:

The bird is in the nest or the shoe is on the foot.
- Materials comprised items with “or” and “either ... or”.
- Participants had to determine whether or not such sentences were true of a pair of pictures.
- Overall, inclusive interpretations were preferred for 82% of the “or” items and 76.5% of the “either ... or” items.
- For adults, the rates were 75% and 68.5%, respectively.
- These data suggest that the normal interpretation of “or” is inclusive, and therefore go against the defaultist view.

- Paris's results are typical of what one finds in the literature:
 - Once contextual factors are factored out and the experimental paradigm is as neutral as possible, rates of scalar inferences are typically around chance level, give or take 10%.
- There is no evidence for weak defaultism.
- General conclusion: Experimental data argue against the notion that SIs are default inferences, unless we adopt a sophisticated notion of default (which inevitably waters down the very notion of default).

Contextualism

- If you're not a defaultist, you must be a contextualist: Q-implicatures are entirely dependent on the context.
- But how plausible is this? At least some Q-implicatures appear to be quite robust, and not very much dependent on contextual factors.
- But this is okay, for two reasons:
 - Even if we try to assess a sentence "in isolation", there are all sorts of ways in which it is contextualised, nonetheless.
 - There may be default *ingredients* in the derivation of some Q-implicatures.

Implicit questions:

- (1) [Does the following sentence imply that not all the goats have the flu?] Some of the goats have the flu.

Topic/comment:

- (2) a. Some of the consultants had a meeting with the director.
b. The director had a meeting with some of the consultants.

Contextualisation (cont.)

Focus:

- (3) a. The director had a meeting with some of the consultants.
b. The director had a meeting with SOME of the consultants.

Partitives:

- (4) There are some oranges in the fridge.
- (5) a. The fridge contains some oranges.
b. The fridge contains some of the oranges.

Relative complexity of alternatives:

- (6) Fred or Barney made a mistake.
 - ~ The speaker doesn't know if Fred made a mistake.
 - ~ The speaker doesn't know if Barney made a mistake.

Default ingredients in the derivation of Q-implicatures

- Competence
- Level of specificity (e.g., “animal” v. “dog”)

Conclusion

By and large, Q-implicatures are nonce inferences, not defaults.