Assignment 4

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

Distributed Feb 6; due Feb 13

1 *neither* vs. *none* [3 points]

In what ways do *neither* and *none* differ? Both seem to have 'negation' about them, but they are not synonyms. Identify two differences between them. These differences can concern your intuitions about syntactic well-formedness or meaning. Notes:

- For each difference, you'll want to present a pair of sentences that differ only in that one uses *neither* and the other uses *none*.
- If well-formedness is the issue, presumably one of the pair will strike you as ungrammatical and the other grammatical. Use the linguist's * to mark the ungrammatical one. In 1–2 sentences, articulate what you see as the nature of the contrast.
- If meaning is the issue, both sentences should be well-formed, but they should differ in what they assume about the context of utterance and/or what they convey. In 1–2 sentences, articulate what you see as the difference(s).

Deciding whether contrasts like these relate to meaning or to form can be challenging and indeterminate. We're open-minded about these categorizations.

If you are interested in doing this problem in another language, write to the staff to discuss that idea – there are lots of options, but we might want to check that you've found a relevant lexical contrast.

2 Monotonicity [2 points]

Here is a possible (though not necessarily empirically correct) definition of the quantificational determiner $[\![many]\!]$:

$$[\![many]\!] = \lambda X\Big(\lambda Y\Big(\mathsf{T} \text{ if } |X \cap Y| \geqslant n,\ \text{else } \mathsf{F}\Big)\Big)$$

where $n \geqslant 0$ is a pragmatic free variable (presumably set to a large integer, though the size might depend on the nature of X and Y). Diagnose the **second** (**scope**) argument as upward, downward, or nonmonotone, and explain why this holds using $[\![many]\!]$. (Note: this isn't a question about your intuitions, but rather about what we are predicting with $[\![many]\!]$.)

3 A (non-existent) non-conservative determiner [2 points]

Consider the hypothetical quantificational determiner *uneq*:

$$[\![uneq]\!] = \{\langle A, B\rangle : |A| < |B|\}$$

Thus, *uneq hippos skateboard* would be true just in case the set of hippos had smaller cardinality than the set of skateboarders. Show that this hypothetical determiner is not conservative. To do this, you just need to find a counterexample – sets A and B that fail the conservativity test when given as arguments to $[\![uneq]\!]$ – and explain why those sets constitute a counterexample.

Tips: We advise using abstract sets like $\{x, y, z\}$ rather than trying to reason about real properties. It is not possible to rely on sentences like *uneq hippos skateboard* to build the argument since the determiner *uneq* does not exist.

4 Existential pivots [3 points]

The English existential construction is a predicational construction formed with *there* in subject position, as in *there are elephants (in the garden)*. The noun phrase *elephants* is the *pivot* phrase.

Existential *there* is not to be confused with the locative *there* and can even be combined with it, as in *there are elephants there*.

Your task: On the basis of the following examples (where * marks ungrammatical cases, as usual), formulate a generalization about which quantifier phrases can appear as the pivot in an existential construction. (A generalization is a single short statement, and that is all that is required. However, you might want to explain how the examples align with the generalization in order to get at least some credit if your generalization is incorrect.)

(1)
   a. There is an elephant in the garden.
   b. There are some elephants in the garden.
   c. There are at least three elephants in the garden.
   d. There are exactly three elephants in the garden.
   e. There are approximately thirty elephants in the garden.
   f. There are at most three elephants in the garden.
   g. There are many elephants in the garden.
   h. There are few elephants in the garden.
   i. There are no elephants in the garden.

(2)
   a. *There is every elephant in the garden.
   b. *There is not every elephant in the garden.
   c. *There are most elephants in the garden.

Please restrict your attention to this set of examples when formulating your generalization, and accept the grammaticality judgments as given (even if you disagree with them).