Negative Polarity Items

Readings: Portner, Ch. 6.3

1. What are Negative Polarity Items?

- Negative Polarity Items (NPIs) are expressions that don't like to appear in positive sentences, and can be used only in certain environments, negative environments in particular.

(1) a.   Mary doesn't want **any** cookies.
     b.   *Mary wants **any** cookies.

(2) a.   No-one has **ever** seen the dark side of the Moon.
     b.   *Someone has **ever** seen the dark side of the Moon.

(3) a.   She didn't like that **at all**.
     b.   *She liked that **at all**.

(4) a.   He didn't **lift a finger** to help me.
     b.   *He **lifted a finger** to help me.

(5) a.   John never **dares** go in there.
     b.   *John (sometimes/always) **dares** go in there.

(6) a.   I **can**'t **help** thinking of it.
     b.   *I **can help** thinking of it.

(7) a.   Susan hasn't been to Mongolia **in years**.
     b.   *Susan has been to Mongolia **in years**.

(8) a.   We can't see **jackshit**.
     b.   *We can see **jackshit**.

- NPI-hood can vary by dialect.

(9)   The gas has been really expensive anymore.

(10)   Michelle smoked at all.

- More generally, while most languages seem to have NPIs, and they often fall in the same semantic domains, there is usually no direct correspondance between languages.

(11) a.   De kritiek   was niet **mals**. [Dutch]
         The criticism was not soft
         There was fierce criticism.
      b.   *De kritiek   was **mals**.
         The criticism was soft
         int. The criticism was soft.

- What are examples of NPIs in your languages?

- NPI indefinites like "anyone" are among the most common, but many languages don't have them.

(12)   a.   Khoeʔe ta ke   mũu tama. [Khoekhoe]
                person I DECL see   not
                I didn't see anyone.
    b.   Khoeʔe ta ke   mũu.
                person I DECL see
                I saw someone.

- A fun one: DP reduplication in Gã (Korsah 2016[1])

(13)   a.   Kwei na wolo ko.
                Kwei saw book a
                Kwei saw a book.
    b.   Kwei é-ná-áá   **wolo ko wolo ko.**
                Kwei SBJ-see-not book a   book a
                Kwei did not see any book.
    c.   *Kwei na **wolo ko wolo ko.**
                Kwei saw book a   book a

2. NPI licensing environments

- An NPI licensing environment is an environment in which NPIs can survive.
- Negation and negative quantifiers are licensing environments, but there are others.

(14)   **Inherently negative predicates and adverbs**
    a.   I doubt Mary wants any cookies.
    b.   He refused to lift a finger to help me.
    c.   It's unlikely that anyone has ever seen the dark side of the Moon.

(15)   **Antecedents of conditionals**
    a.   If John had dared go in there, he would've realized.
    b.   If he had lifted a finger to help me, our friendship would've survived.
    c.   Si tu as   vu   qui   que ce soit, dis-le moi. [French]
                if you have seen what that it is   tell-it to.me
                If you saw anyone, tell me.

(16)   **Restrictor of** *every*
    a.   Everyone who has ever seen the dark side of the Moon is wise.
    b.   *Someone who has ever seen the dark side of the Moon is wise.

- These licensing environments are more or less the same across languages.

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[1] Korsah, S., 2016. From polarity to reduplication in Gã. *Replicative Processes in Grammar*, 93, pp.35-56.

3. Characterizing environments in terms of their entailment properties

- An upward entailing environment licenses inferences from subsets to supersets, e.g., from *red apple* to *apple*.

  (17) John ate a red apple.
        $\rightarrow$ John ate an apple.

- Put more formally:

  (18) An environment $E[\,]$ is *upward entailing* if for all predicates P and Q such that $P \subseteq Q$, then $E[P] \rightarrow E[Q]$.

- In (17), the environment $E[\,]$ is "John ate [ ]".

In-class Exercise 1

- We want to give a characterization of the environments that license NPIs.
- As a first attempt, check whether these environments are upward entailing, by taking a sentence, replacing its predicate, e.g. "ate a red apple", with a weaker one, e.g. "ate an apple", and seeing whether the original sentence entails the new one.

- Can you think of another property, defined in a similar way as upward entailing, that would apply to all NPI licensing environments?
- Write down a definition of this property, and show that NPI licensing environments indeed have this property (by showing that the relevant entailments hold).

Problems with the theory of downward entailment
- There are more environments than those mentioned above that license NPIs:

(19)   **Questions**

    a.   Does Mary want any cookies?

    b.   Who has ever seen the dark side of the Moon?

    c.   Kimse-yi   gör-dü-n   mü? [Turkish]
        anyone-acc see-past-2sg MI
        Have you seen anyone?

(20)   *Only*

    a.   Only John dares go in there.

    b.   Only Mary has ever been to the dark side of the Moon.

(21)   *Exactly n*

    a.   Exactly two people have ever seen the Loch Ness monster.

    b.   *Two people have ever seen the Loch Ness monster.

In-class Exercise 2

- Say why the following environments pose a problem for the downward entailment theory of NPI licensing.

(22)   *exactly n NP* [ ]

(23)   *only* [ ]

(24)   questions

In-class Exercise 3
- Let's focus on *only* for a moment. It makes sense to divide the meaning of *only* into two dimensions, a positive and a negative one. What are they?

- One of these two components is a presupposition, one is an entailment. Which is which?

- We can now define a version of downward-entailingness that is only sensitive to the negative dimension of *only*, that is to its *truth-conditional content*.
- The relevant notion of entailment we need for this is called *Strawson entailment*. Intuitively, Strawson entailment is entailment not taking into account any presuppositions:

(25)   To check whether a sentence A Strawson-entails a sentence B: go to a context in which all presuppositions of A are satisfied and check whether in this context A entails B.

- For example, (26a) doesn't entail (26b).

(26)   a.   Only Bill ate a vegetable for breakfast.

       b.   Therefore, only Bill ate kale for breakfast.

- But, once we add the presupposition of the conclusion (that is, once we additionally assume that Bill ate kale for breakfast), the entailment goes through. That means, *Only Bill ate a vegetable for breakfast* Strawson-entails *Only Bill ate kale for breakfast*.

(27)   a.   Only Bill ate a vegetable for breakfast.
       b.   Bill ate kale for breakfast.   ← the presupposition of the conclusion!

       c.   Therefore, only Bill ate kale for breakfast.

- Back to our account of NPIs. Notice that the entailment from *ate a vegetable* to *ate kale* is a downward entailment. So, we have established that *only* is Strawson-downward-entailing.
- Based on this, a possible updated generalization (which we won't pursue here) is: An NPI can appear in an environment $E[]$ iff $E[]$ is Strawson-downward-entailing.

4. Strong and weak NPIs

- We just looked at data for which the downward entailing theory *undergenerates*. But it's also possible to find data where it *overgenerates*.
- Certain NPIs are not licensed in certain downward entailing environments.

(28) *in years*

    a. *Everyone who has been to Paris in years is happy.
    b. *Has John been to Paris in years?
    c. *Only John has been to Paris in years.
    d. *If John has been to Paris in years, …

(29) *can help*

    a. *Everyone who can help thinking of it is happy.
    b. *Can I help thinking of it?
    c. *Only I can help thinking of it.
    d. *If I could help thinking about it, I would be happier.

(30) *jackshit*

    a. *Everyone who can see jackshit is happy.
    b. *Can we see jackshit?
    c. *Only we can see jackshit.
    d. *If we could see jackshit, we would be happier.

(31) *lift a finger*

    a. %Everyone who lifted a finger to help me made me happy.
    b. %Has he lifted a finger to help me?
    c. %Only John has lifted a finger to help me.
    d. %If he had lifted a finger to help me, …

- Such NPIs that don't survive in questions, antecedents of conditionals, and others are called **strong NPIs**. Others like *any*, *ever*, *dare*, etc, that survive in all licensing environments are called **weak NPIs**.

What you need to know

Key notions: negative polarity items, downward entailing environment, upward entailing environment, weak vs. strong NPIs, overgeneration, undergeneration

Answers to the following questions:
- What problems does the downward entailment theory of NPI licensing have?

Skills:
- Test whether an environment is upward or downward entailing.

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