

## Positive uses of NPIs and logical duality

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The NPIs *any*, *ever*, *yet*, and *anymore* have polarity-sensitive uses that are restricted to downward entailing environments. Each of them also has a positive use, often restricted by linguistic environment, register, or dialect. Here, I show that these positive uses are systematically related to the negative uses: they are logical duals. This has been observed in passing for *any* and *ever*, but hasn't been extended to *yet* and *anymore*. The strong generalization that emerges has diachronic ramifications: when the distribution of a particular operator is restricted to a particular logical environment, this produces an ambiguity of analysis that is conducive for diachronic semantic change.

(1) - (4) provide positive uses of the four NPIs. *Any* can famously be used as a free choice item, equivalent to a wide-scoping universal (Horn 1972, Ladusaw 1979, Carlson 1981, Dayal 1998, *i.a.*). *Ever* has been studied less systematically, but it, too, has a positive use as a universal. In modern English, the positive use is syntactically restricted and sometimes feels archaic, but Leuschner (1996) shows that Middle English *efre* had both NPI and positive universal uses (see also Hoekstra et al. 2012). Positive uses of *yet* feel similar in modern English: syntactically restricted with a sometimes archaic flavor (cf. Myler & Harves 2014). Finally, positive *anymore* has been described for many Midland American English dialects (Hindle & Sag 1975, *i.a.*).

(1) *any* = *every*

- a. I talked to anybody who was interested.
- b. Anybody can come.

(2) *ever* = *always*

- a. I've been here ever since you called.
- b. The crowd grew ever more raucous.
- c. the ever watchful guard
- d. *forever*, *everlasting*, *evergreen*, *happily ever after*

(3) *yet* = *still*

- a. The winner {is/has} yet to be determined.
- b. The night is yet young.
- c. There is yet more snow tonight.
- d. The gymnast may yet fall.

(4) *anymore* = *nowadays*

- a. Gas is expensive anymore.

What do these positive uses have in common? Strikingly, in each case, the logical relation between the positive and negative uses is the same: they are logical duals.

(5) a. not any = every not

b. not ever = always not

c. not yet = still not

d. not anymore = nowadays not

Given an NPI licensed by (and scoping under) simple negation, the positive counterpart of the NPI is the meaning the NPI would need to receive if it were interpreted as scoping above the negation, in order to get an identical meaning for the sentence. For *any* and *ever*, existential force becomes universal force. For *yet* and *anymore*, presupposed content is inverted, reflecting the semantic projection of a negated prejacent (cf. Löbner 1989 for German *schon*, 'already' and *noch*, 'still').

Synchronically, one should be cautious. The differences between positive and negative uses regarding both syntactic distribution and social factors makes a unified analysis unlikely. On the other hand, the generalization provides a compelling story from a diachronic perspective. A child learning language has to hypothesize possible meanings for the words she encounters. When a given word is restricted to a specific logical environment, this invites an ambiguity of analysis. On the plausible assumption that most environments in which a child encounters an NPI are anti-additive (and in particular, involve sentential negation), the child can equally well posit an NPI meaning, or its dual.

Barker (2018) and Kuhn (2018) argue that polarity sensitive phenomena are integrally connected to scope-taking. The diachronic perspective offered here offers new support in favor of this proposal. At the same time, the precise claim must be revised. Barker (2018) claims that NPIs serve as an "utterly reliable signal" that an indefinite is taking narrow scope. We have seen that this is incorrect for language transmission: sometimes an NPI is taken as a signal that a universal is taking wide scope. But the spirit is correct. The NPI is a reliable signal of a *stable meaning*, even for a potentially ambiguous LF. (And when the meaning of the NPI is resolved, then so is its structural position.)

Diachronically, Jespersen's cycle (Dahl 1981, Jespersen 1917) is one of the most widely accepted generalizations regarding semantic change. It is driven by the following principle: when a particular meaning is associated with two words that always appear together, then there are two unresolved variables, yielding ambiguity regarding which element carries the meaning. This leads to diachronic change. In the pattern above, we see that Jespersen's cycle is the symmetric case of a more general principle. The asymmetric counterpart: when X always appears with Y (but Y may appear without X), there is nevertheless ambiguity of analysis, because there are still two unresolved variables: denotation and scope.

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