

### Letting negative polarity alone for *let alone*

Inquiry into the distribution of polarity items has focussed largely on two questions: what are the class of expressions, called TRIGGERS, that license them (these are [+affective] elements for Klima 1964, downward entailing expressions for Ladusaw 1980, and (non)veridical operators for Giannakidou 1999), and what is the relationship that must hold between the trigger and polarity item? The answer to this second question is thought generally to be scope: a negative polarity item (NPI) must appear in a trigger's scope (Ladusaw 1980:168). Here, I examine *let alone* (1), an expression that poses a problem for this approach. While it behaves like an NPI, occurring only in downward entailing environments, *let alone* takes scope over its apparent trigger.

- (1) Oswald hasn't climbed the Catskills, let alone Mt. Everest.

I propose a semantics and pragmatics for *let alone* that derives its distribution in NPI contexts as epiphenomenal, thus removing the challenge to the scope approach to polarity licensing.

*Let alone* is treated by Fillmore et al. (1988) as an NPI, since it can occur in a negative sentence like (1), but is ungrammatical in the corresponding positive sentence:

- (2) \*Oswald has climbed the Catskills, let alone Mt. Everest.

More generally, *let alone* is licensed in downward entailing contexts, like the canonical NPI *any*: e.g. sentences with negation (explicit or implicit), *before*, *without*, or *too*, the antecedent of a conditional, the restriction of a universal quantifier (data not shown). It is not licensed in upward entailing contexts, such as (2), or in nonmonotonic contexts (some of which, problematically, allow *any*): e.g. imperatives, generics, yes/no questions, the scope of *only* (data not shown). Treating *let alone* as an NPI in order to derive this distribution is made difficult, however, because it always takes wide scope over the downward entailing expression. (1) can only be translated as (3), with the conjunction—the meaning contributed by *let alone*—taking wide scope over negation.

- (3)  $\neg(\text{climb}(\text{the-catskills})(\text{oswald})) \wedge \neg(\text{climb}(\text{mt-everest})(\text{oswald}))$

Pragmatically, *let alone* serves to satisfy the competing demands of the maxims of Relevance and Quantity. The second conjunct of (1) satisfies Relevance by answering the immediate question under discussion (QUD; Roberts 1996), which in this case is: *Has Oswald climbed Mt. Everest?* The speaker obeys Quantity with the first conjunct, which is more informative than required by the immediate QUD, but adds information the speaker thinks is necessary to answering the superquestion *What (mountains) has Oswald climbed?* The first conjunct is more informative than the second conjunct because the two DPs *the Catskills* and *Mt. Everest*, which I call the CORRELATES, are related on a scale of mountains ordered by how difficult they are to climb: ⟨Mt. Everest, the Catskills⟩ (elements on the left outrank those on the right). Because of the scale reversing properties of negation and other downward entailing operators (Ladusaw 1980:143–146), we can infer the truth of the second conjunct from the truth of the first conjunct: if Oswald hasn't been able to climb the Catskills (only 4,180 feet), he certainly won't have climbed Mt. Everest (29,028 feet). Strictly speaking, of course, the scale of mountains is not ordered by entailment (like a Horn scale), but rather is constructed pragmatically. The inference from the first conjunct to the second nonetheless goes though, as (1) conveys the ancillary entailment in (4), which restricts the context set to just those worlds that obey the contextually supplied scale *S*.

- (4)  $\forall x, y [y >_S x \wedge \mathbf{climb}(y)(\mathbf{oswald}) \rightarrow \mathbf{climb}(x)(\mathbf{oswald})]$

This analysis predicts that reversing the order of the conjuncts—making the first conjunct the less informative—should be infelicitous, as, in fact, it is:

- (5) # Oswald hasn't climbed Mt. Everest, let alone the Catskills.

*Let alone* additionally requires that the correlate in the first conjunct be at the very bottom of a scale. Consider the following scenario: We are members of a mountain climbing club with the ultimate goal of climbing Mt. Everest. Members train by attempting climbs of increasing difficulty, starting with the Catskills, then moving on to Mt. Whitney (14,505 feet), after which they are ready for Mt. Everest. The scale of mountains is thus:  $\langle \text{Mt. Everest, Mt. Whitney, the Catskills} \rangle$ . Oswald recently joined the club, but hasn't yet made any climbs. In response to my question about his progress, *Has Oswald climbed Mt. Everest yet?*, it would be infelicitous to reply with (6).

- (6) # Oswald hasn't climbed Mt. Whitney, let alone Mt. Everest.

This is infelicitous as a response because Mt. Whitney is not the easiest of the three salient mountains to climb. Another probe for the scalar position of the first correlate involves *even*, which only associates with expressions at the bottom of a scale (Karttunen and Peters 1979:23–33). Adding it to the first conjunct of (1), as in (7), does not result in a change in meaning, indicating that the DP it is associated with, *the Catskills*, is already at the bottom of a scale.

- (7) Oswald hasn't even climbed the Catskills, let alone Mt. Everest.

To summarize, *let alone* imposes two pragmatic requirements: 1) the first conjunct must be more informative than the second; and 2) the correlate of the first conjunct must be at the bottom of a scale. These two requirements together derive the distribution of *let alone* in downward entailing contexts, since they can both only be satisfied when scales are flipped—that is, when a proposition containing a lower member of the scale is more informative than one containing a higher member. (This is similar to Israel's (2001) approach to minimizer NPIs, such as *a wink*.) In upward entailing and nonmonotonic contexts, the entailment patterns hold in the normal direction (propositions containing higher expressions entail those containing lower ones), or not at all, with the result that the two requirements cannot both be satisfied. *Let alone*'s occurrence in only downward entailing environments thus stems from the expression's pragmatic requirements and not licensing by an NPI trigger. Since, therefore, *let alone* is not a true NPI, it does not pose a problem for the traditional scope approach to polarity licensing.

**Fillmore, C. J. et al.** 1988. Regularity and idiomaticity in grammatical constructions: The case of *let alone*. *Language* 64:501–538. **Giannakidou, A.** 1999. Affective dependencies. *Linguistics and Philosophy* 22:367–421. **Israel, M.** 2001. Minimizers, maximizers, and the rhetoric of scalar reasoning. *Journal of Semantics* 18:297–331. **Karttunen, L. and S. Peters.** 1979. Conventional implicature. In *Syntax and semantics, Volume 11*, 1–56. New York: Academic. **Klima, E. S.** 1964. Negation in English. In *The structure of language: Readings in the philosophy of language*, 246–323. Englewood Cliffs, NJ: Prentice-Hall. **Ladusaw, W. A.** 1980. *Polarity sensitivity as inherent scope relations*. New York: Garland. **Roberts, C.** 1996. Information structure in discourse: Towards an integrated formal theory of pragmatics. *OSU Working Papers in Linguistics* 49:91–136.