1 The puzzle

Polarity items are generally thought to be licensed by scope: a negative polarity item (NPI) must occur in the scope of an NPI trigger (Ladusaw 1980:168).

Let alone poses a problem for this approach. While it behaves like an NPI—occurring only in downward entailing environments—it takes scope over its apparent trigger:

(1) a. Few people have climbed Mt. McKinley, let alone Mt. Everest.
    b. # Many people have climbed Mt. McKinley, let alone Mt. Everest.

(2) few(people)(climb(mt-mckinley)) \land few(people)(climb(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.

2 Is let alone a negative polarity item?

Fillmore et al. (1988) observe that let alone behaves like an NPI. It can occur in a variety of downward entailing contexts (or, perhaps, Strawson downward entailing; see von Fintel 1999):

(3) In the past one Soviet space firm was not allowed contact with another, let alone companies in the West. (AIIY 100)

(4) Where Musgrove and John Hopkins, who put it all together, got lucky was that they chronicled a period of success that may never have been equaled, let alone exceeded, by any British golfer. (AAN 70)

(5) It is difficult enough for an individual to be consistent, let alone a society. (ASA 124)

(6) These days, most women’s lives are so varied that no single scent will take us from gym to office, from desk to dinner—let alone dawn till dusk. (ATN 245)

(7) Every American ‘fact-finding’ visit to Ulster, let alone those of overt IRA propagandists, rubs salt into this irritation. (HSF 1104)

(10) And to think, he wrote, that with all my previous work I barely knew what step to take first, let alone what step to take second, let us not talk about the third. (A88 82)

(9) Little attention was paid to it, and 10 years passed before the existence, let alone the exact functions of these receptors, non-committally named alpha and beta, was recognized. (ARF 1230)

(10) Although Indians had been allowed to join the ICS since 1858, only a handful had actually sat its fiercely competitive examinations, let alone passed. (ARK 957)

(11) Benn is too much a product of his comfortable and intensely high-minded background to be able to understand why the common man (let alone the common politician) has more vulgar aspirations than plain living and high thinking. (A3T 28)

But it is not licensed in upward entailing or nonmonotonic contexts (even ones that allow the NPIs any and ever):

(12) # Oswald climbed the Berkeley hills, let alone Mt. Everest.

(13) # Every boyscout has climbed the Berkeley hills, let alone Mt. Everest.

(14) # Exactly three Danes have climbed the Berkeley hills, let alone Mt. Everest.

(15) # Has Oswald climbed the Berkeley hills, let alone Mt. Everest?

(16) # They wanted Oswald to climb the Berkeley hills, let alone Mt. Everest.

(17) # Climb the Berkeley hills, let alone Mt. Everest!

(18) # Oswald will climb the Berkeley hills, let alone Mt. Everest.

(19) # Tourists climb the Berkeley hills, let alone Mt. Everest.

3 The semantics of let alone

The let alone sentence in (1a) expresses two entailments:

(20) a. Main entailment: few(people)(climb(mt-mckinley)) \land few(people)(climb(mt-everest))

b. Scalar entailment: mt-mckinley ≤f_{mt-everest}

Reversing the order of the correlate, Mt. McKinley, and the remnant, Mt. Everest, is ifelicitous:

(21) # Few people have climbed Mt. Everest, let alone Mt. McKinley.

The scalar entailment really is part of ‘what is said’, since it cannot be cancelled (22) and can be embedded under verbs of saying (Bach’s (1999) IQ test) (23).

(22) Oswald doesn’t eat cuttlefish, let alone squid. # In fact, squid is easier to eat than cuttlefish.

(23) a. Mary said [that Oswald doesn’t eat cuttlefish, let alone squid].

b. Mary said [that Oswald doesn’t eat cuttlefish and that he doesn’t eat squid].

And it is an entailment, not a presupposition, since it does not project through presupposition holes:

(24) You are preparing dinner for your roommate and her new friend, Oswald. You are trying to decide whether to make cuttlefish or squid. You ask, ‘Do you know if Oswald eats squid?’

Roommate: It might be that Oswald doesn’t eat cuttlefish, let alone squid.

4 The pragmatics of let alone

Let alone helps to mediate between the competing demands of the maxims of Relevance and Quantity (Fillmore et al. 1988:532–533).

The second conjunct satisfies Relevance by answering a question under discussion (Roberts 1996):

(25) Q: Have a lot of people climbed Mt. Everest?
   A: Few people have climbed Mt. McKinley, let alone Mt. Everest.

(26) Q: Have a lot of people climbed Mt. McKinley?
   A: # Few people have climbed Mt. Everest, let alone Mt. McKinley.

The first conjunct satisfies Quantity, since it must be more informative than the second conjunct: it adds information the speaker thinks is necessary for answering the superquestion What (mountains) have a lot of people climbed?

Since the scales involved here (mountains, seafood) are pragmatically constructed, the relevant notion of informativeness is not logical entailment, but rather entailment relative to the common ground (27). For (1a), the common ground must include something like (28).

(27) p contextually entails q iff CG \cap p \subseteq q

(28) The number of people who have climbed a harder mountain is less than the number who have climbed an easier mountain.

5 A solution

Let alone has two requirements:

1. Semantic requirement: The correlate must be lower than the remnant.
2. Pragmatic requirement: The first conjunct must contextually entail the second conjunct.

Israel’s (1998) analysis of minimizer NPIs can be extended to account for let alone’s distribution in downward entailing contexts.

Both requirements are satisfied when a proposition containing a lower member of some scale contextually entails a proposition containing a higher member. This only happens in downward entailing environments, when scales are ‘flipped’ (Ducrot 1973, Fauconnier 1975):

(29) a. Few people have climbed Mt. McKinley, let alone Mt. Everest.

b. Few people have climbed Mt. McKinley \Rightarrow Few people have climbed Mt. Everest.

(30) a. # Many people have climbed Mt. McKinley, let alone Mt. Everest.

b. Many people have climbed Mt. McKinley \Rightarrow Many people have climbed Mt. Everest.

Even when the first conjunct in a non-downward entailing let alone sentence does contextually entail the second conjunct, it is ifelicitous since the correlate is not lower on the scale of mountains than the remnant:

(31) a. # Many people have climbed Mt. Everest, let alone Mt. McKinley.

b. Many people have climbed Mt. Everest \Rightarrow Many people have climbed Mt. McKinley.

Since let alone is not an NPI, it does not have to occur in the scope of a downward entailing operator.