NPI-licensing: the view from strong NPIs

Background: Research into the licensing of NPIs has necessitated amendments to the influential Fauconnier/Ladusaw hypothesis (F/LH), which states the NPIs are licensed by Downward Entailing operators (1). First, some NPIs such as *any* and *ever* are licensed by operators that do not license DE inferences, such as *only* NP (2). This has led to such innovations as von Fintel's 1999 Strawson DE and Horn's 2002 assertoric inertia, which permit NPIs to ignore certain aspects of meaning. I will say that NPIs show **ignorance**. In the case of *only* NP, this means NPIs can ignore the prejacent proposition, which interferes with DE inferences. Once this proposition is ignored, either as presupposed or assertorically inert, the NPI is licensed by the DE-ness of the truth-conditions/assertion. Second, some NPIs, called strong, occur only in a proper subset of DE environments (cp. (3) & (4)). In English, this class of NPIs includes *either, until, & in weeks*. Zwarts 1998 influentially proposes that the licensers of strong NPIs can be characterized as those that are Anti-additive (AA). AA operators are DE and in addition verify the inference in (5). These two amendments to F/LH naturally interact and, I suggest, in a harmful way.

Problem: The approaches to the problem of NPIs licensed by non-DE operators is resolved by suggesting ways of making certain coordinates of meaning irrelevant to NPI-licensing. Once we ignore a presupposition/inert entailment, we see that the operator was DE all along. It seems natural to extend this way of ignoring certain coordinates of meaning to Zwarts's theory of strong NPIs. If the problematic parts of meaning are irrelevant to assessing DE-ness, they ought to be irrelevant to assessing AA-ness, as well. Are there any operators that become AA when we ignore problematic coordinates of meaning? Yes. In fact, on standard analyses, *only* NP – the operator whose DE-ness we just discovered – turns out to be AA once we ignore the prejacent (8). This observation is supported by the AA-ness of the *every*'s restrictor and Horn's 1996 observation that *every* and *only* are converses. This new discovery is unwelcome – *only* NP does not license strong NPIs (9). This leaves us with an ugly description of the difference between weak and strong NPIs. Weak NPIs are licensed by DE-ness assessed with ignorance, Strong NPIs are licensed by AA-ness assessed without ignorance. Two different settings of two independent parameters (11).

Solution: I propose that we can reduce one of these independent parameters to the other. In particular, I propose that the AA vs. DE distinction that differentiates strong from weak NPIs can be reduced to the fact that weak NPIs show ignorance and strong NPIs do not. This can be accomplished in the following way: (i) Recognize that AA operators occupy the strong end of negative scales (cf. Krifka 1995 on strong NPIs. (ii) Strong scalar endpoints have a special property: they do not (locally) introduce implicatures (I assume with Chierchia 2004 that there is a mechanism that locally introduces implicatures that may not survive as calculation proceeds). (iii) Scalar Implicatures interfere with DE inferences (12). Strong NPI licensers *no* NP and *never* are AA, sit at the strong endpoint of negative scales and do not introduce positive implictures. *Not every* NP and *not always*, on the other hand are merely DE, are not strong endpoints and therefore introduce a positive, existential implicature. *Not every NP (but some NP)* does not license DE inferences. I take this to explain why the AA operators license strong NPIs and why merely DE operators do not. Locally introduced scalar implicatures are another coordinate of meaning (a) that weak NPIs ignore in their search for DE-ness and (b) that strong NPIs cannot ignore in their search for DE-ness. So, to sum up, I propose weak NPIs and strong NPIs both are licensed by DE-ness, but weak NPIs only require it in the truthconditions/ assertion and strong NPIs require DE-ness that is preserved when all non-truth-conditional/inert coordinates of meaning are taken into consideration.

(1) A function F is DE iff for all A, B s.t. $A \subseteq B$, $f(B) \Rightarrow f(A)$.

(2) *Only* NP: (a) Only Bill ever said anything
(b) Only Bill ate a vegetable =/=> Only Bill ate kale
[similarly for adversatives like *sorry* and antecedents of conditionals]

(3) a. Less than three students said anything
b. No student said anything

(4) a. *Less than three students have visited in weeks/either.
b.No student has visited in weeks/either.

(5) A function F is AA iff F is DE and for all A,B $F(A) \wedge F(B) \Rightarrow F(A \vee B)$

(6) ⟦Less than 3 boys⟧ is not AA: Less than 3boys drink & Less than 3 boys smoke =/=> Less than 3 boys drink or smoke

(7) ⟦no boys⟧ is AA: no boys drink & no boys smoke ⇒ no boys drink or smoke

(8) ⟦only⟧ (x) (P) is defined only if P(x) = True.
If defined, ⟦only⟧ (x) (P) = True iff $\neg \exists y \neq x$: P(y) = True.

(9) *Only Bill has visited in weeks/either. (see Atlas 1996, Horn 1996, Giannakidou 2006)

(10) No one distinct from Bill drinks & No one distinct from Bill smokes
No one distinct from Bill smokes or drinks
[the same can be shown for adversatives like *sorry* and antecedents of conditionals]

(11) Strong and Weak NPIs differentiated by two different settings of two parameters.

	No Ignorance	Ignorance
DE	???	Weak NPIs
AA	strong NPIs	???

(12) Not Every + Implicature does not license DE inferences:
Not every student left and some student left =/=>
Not every student left early and some student left early

References:

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