

PPI effects with an NPI/FCI in Telugu

THE PUZZLE: An NPI/FCI item in Telugu, *ee-N-ainaa* built from a *wh*-item, *ee-N*, and a concessive scalar additive particle (CSAP), *-ainaa*, cannot normally occur in a negative episodic context –it is a Bagel Polarity Item (Pereltsvaig 2000) usually banned in both positive and negative episodic contexts, but licensed in DE contexts, and imperative, generic, and modal contexts. But there are special conditions under which it can occur under negation, symptomatic of PPIs (Szabolcsi 2004) –under metalinguistic negation; Shielding by an intervening operator; beyond its Locality; and, Rescuing/Flip-Flop. Why is an NPI/FCI item showing PPI effects?

OUR SOLUTION: An exhaustification based approach to PIs, and interaction of the exhaustification operator with other propositional operators, plus competition with another scalar particle based NPI, *ee-N-VV*, derives the right distribution. Both the bagel pattern and the PPI behaviour fall out of these conditioning factors. Also explained is how in some contexts where it looks like their complementary distribution is broken, both *ee-N-ainaa* and *ee-N-VV* are permitted.

***ee-N-ainaa*'s SEMANTICS:** Following Chierchia (2013)'s overarching model of PIs, we assume that *wh*-indefinites are existentially quantified (Karttunen 1977). The CSAP *-ainaa* is re-analysed as a dedicated polarity morpheme signalling the obligatory activation of sub-domain and scalar alternatives. In a positive episodic sentence (without covert modality or subtriggering), exhaustification leads to contradiction. With a DE operator, the alternatives are all entailed, and the result is well-formed. Modal contexts are also good, through recursive exhaustification, via O_{Exh-DA} (a flavor of covert *only*), which yields a free choice reading. As *ee-N-ainaa* usually gets a universal FC reading, it must scope over the modal, and for this to occur without contradiction, the implicature must be weakened via Modal Containment (Chierchia 2013).

BLOCKING BY *ee-N-VV*: But *ee-N-ainaa* cannot occur with clausal negation or *without*. It is exactly here that another PI *ee-N-VV* occurs. We analyse *-VV* (the conjunctive/scalar additive particle) as another alternatives activating morpheme, but crucially differing from *-ainaa* in requiring Strong exhaustification via O^S that looks at presupposition-enriched content, which happens felicitously only in such negative contexts. Another crucial difference from *ee-N-ainaa* is that *ee-N-VV* disallows recursive exhaustification – $*O_{Exh-DA}$, preventing it from occurring in modal contexts, which require recursive exhaustification. So *ee-N-VV* is restricted by these two additional lexical specifications to clausal negation and *without* contexts. Here, all else being equal, the more specific lexical item *ee-N-VV* blocks the more general lexical item *ee-N-ainaa*. An important point regarding *ee-N-VV* is that it cannot be used as a negative fragment answer, so it clearly cannot be considered a negative indefinite, which its distribution might suggest.

EXPLAINING THE PPI EFFECTS WITH *ee-N-ainaa*: We begin with metalinguistic/contrastive negation (1a). The reading arises by recursive exhaustification below negation along with the insertion of a covert agent-oriented modal. Since *ee-N-VV* cannot be inserted in these contexts due to its lexical restriction against recursive exhaustification, *ee-N-ainaa* is free to be inserted here. Even under regular negation, an FC reading can be obtained (though not as readily) via the same mechanism, with *ee-N-ainaa* under the covert modal, which itself is in the scope of negation.

- (1) a. neenu ee-pustakam-ainaa cadava-leedu, neenu aa pustakam-ee cadiveenu
 I which-book-CSAP read-not I that book-only read
 'I didn't read ANY book, I read that book only.'
- b. LF: $\neg O_{Exh-DA} O_{\sigma A} [\Box_A [\text{which-book-ainaa}_{[+\sigma, +D]}]_i [I \text{ read } t_i]$

The second PPI-effect is Shielding (2a) –an intervening operator/quantifier shields *ee-N-ainaa* from negation within the same clause. Here exhaustification happens below negation in a configuration that *ee-N-VV* cannot live in, but *ee-N-ainaa* can occur here, without contradiction. Note that shielding here is by an operator/quantifier different from the one usually discussed in PPI contexts –universal quantifiers (which can also intervene and shield *ee-N-ainaa*, though not

illustrated here), whereas interestingly in (2) the intervener/shielder is a DE operator.

- (2) a. *aidu-kanTee-takkuva pillalu ee-pustakam-ainaa cadava-leedu*
 5-than-less kids which-book-CSAP read-not
 ‘It is not that less than 5 kids ready any book.’
 b. LF: $\neg O_{\sigma A} O_{DA} [\text{less than five}_{[+\sigma,+D]} \text{ kids}_j [\text{which-book-ainaa}_{[+\sigma,+D]i} [t_j \text{ read } t_i]]]$

The third PPI-effect is Locality *-ee-N-ainaa* is fine in the scope of extra-clausal negation (3a). This reading arises because of a covert speaker-oriented model that takes wide scope giving rise to an existential free choice meaning (3b). But such a sentence has another more prominent reading (3c) –due to a covert modifier with a universal modal that occurs in the restriction of the *ee-N-ainaa* phrase –covert subtriggering, giving rise to a universal FC meaning ‘I didn’t say that Ravi read any book (that was there)’. Another possible reading is where *ee-N-ainaa* simply gets its NPI interpretation, ‘I didn’t say that Ravi read any book’. This is possible as the competing polarity item *ee-N-VV* cannot occur in contexts of extra-clausal negation.

- (3) a. *ravi ee-pustakam-ainaa cadiveeDu ani neenu ana-leedu*
 Ravi which-book-CSAP read that I said-not
 ‘I didn’t say that Ravi read some book.’
 b. LF embedded clause: $O_{Exh-DA} O_{\sigma A} [\Box_S [\text{which-book-ainaa}_{[+\sigma,+D]i} [\text{Ravi read } t_i]]]$
 c. Reading 2: $O_{Exh-DA} O_{\sigma A} [\text{which-book-ainaa}_{[+\sigma,+D]i} [\text{that } \Box [\text{was there}]_i [\text{Ravi read } t_i]]]$

The fourth and signature PPI-effect is Rescuing or Flip-Flop –a negative clause with a PPI is licit when itself in a DE environment (illustrated here with an *if* clause, but also possible with a Y/N question, the restriction of a universal quantifier, and an *only* phrase) (4a). Here two locations for exhaustification exist (4b) & (4c), one where *ee-N-ainaa* is inserted, and one where *ee-N-VV* is inserted. Exhaustification in the higher position (above the DE operator) allows for the insertion of *ee-N-ainaa* as it cannot be blocked (because *ee-N-VV* is bad here) (4d), whereas in the lower position (above negation) *ee-N-VV* is inserted (4e), blocking *ee-N-ainaa*. Thus, (4d) and (4e) are two possible and distinct readings.

- (4) a. *ee-pustakam-ainaa / ee-pustakam-uu cadav-aka-pootee raamu fail ayyeevaaDu*
 which-book-CSAP / which-book-VV read-not-if Ramu fail became
 ‘If he had not read any book Ramu would have failed.’
 b. $O_{DA} O_{\sigma A} [\text{OP}_{DE} [\neg [\dots ee-N-ainaa_{[+\sigma,+D]} \dots]]]$
 c. $\text{OP}_{DE} [O_{ALT}^S [\neg [\dots ee-N-VV_{[+\sigma,+D]} \dots]]]$
 d. LF: $O_{DA} O_{\sigma A} [\text{If not read which-book-ainaa}_{[+\sigma,+D]} , \text{Ramu would have failed}]$
 e. LF: $\text{If } O_{ALT}^S [\text{not read which-book-VV}_{[+\sigma,+D]}] , \text{Ramu would have failed}$

Other configurations that allow both PIs include a negative imperative ‘Don’t read any (*ee-N-ainaa/ee-N-VV*) book!’ (5), & a possibility modal scoping over a negated predicate ‘You can be without reading any (*ee-N-ainaa/ee-N-VV*) book’ (6) (data/exact glosses omitted for space).

- (5) a. $O_{Exh-DA} O_{\sigma A} [\Box! [\neg [\dots ee-N-ainaa_{[+\sigma,+D]} \dots]]] \Leftarrow \exists\text{-FCI}, \neg \exists$
 b. $\Box! [O_{ALT}^S [\neg [\dots ee-N-VV_{[+\sigma,+D]} \dots]]]$
 (6) a. $O_{Exh-DA} O_{\sigma A} [ee-N-ainaa_{[+\sigma,+D]i} [\diamond [\neg [\dots t_i \dots]]]] \Leftarrow \forall\text{-FCI}, \forall \neg$
 b. $\diamond [O_{ALT}^S [\neg [\dots ee-N-VV_{[+\sigma,+D]} \dots]]]$

A configuration with two negative operators ‘Not being without reading any (**ee-N-ainaa / ee-N-VV*) book is the mistake you made’, confirms our analysis which predicts blocking by *ee-N-VV* in both exhaustification locations (7), and indeed *ee-N-ainaa* is ungrammatical here.

- (7) a. $O_{DA} O_{\sigma A} [\neg [\neg [\dots ee-N-ainaa_{[+\sigma,+D]} \dots]]] \Leftarrow \text{BLOCKED}$
 b. $O_{ALT}^S [\neg [\neg [\dots ee-N-VV_{[+\sigma,+D]} \dots]]]$
 c. $\neg O_{DA} O_{\sigma A} [\neg [\dots ee-N-ainaa_{[+\sigma,+D]} \dots]] \Leftarrow \text{BLOCKED}$
 d. $\neg O_{ALT}^S [\neg [\dots ee-N-VV_{[+\sigma,+D]} \dots]]$