

Bagel Problem Items in Telugu and Tamil

CONTRIBUTIONS: We first establish that a bagel pattern of distribution is found for a polarity item *wh-ainaa* & *wh-aavate*, in two of the Dravidian languages, Telugu & Tamil respectively (we use Telugu data to illustrate in this abstract) that cannot be accounted for by either of the two major lines of attack for the bagel problem –a complementary distribution explanation, or a bipolar feature type account. We then show that a compositional semantic analysis, decomposing the item into an indeterminate pronoun and a concessive scalar additive particle, itself a complex of two operators, and interaction of the two operators with other propositional operators, plus competition with another scalar particle based NPI, derives the right distribution.

BAGEL DISTRIBUTION: *wh-ainaa* is formed by adding the suffix *-ainaa* to interrogative pronouns. A *wh-ainaa* item cannot occur in a positive episodic sentence, or in an anti-morphic context. It can occur in a downward entailing context, and in non-veridical imperative and modal contexts (including future). This is a bagel pattern of distribution (Pereltsvaig 2000).

NOT COMPLEMENTARY DISTRIBUTION: One prominent explanation for the bagel distribution is a morphological blocking analysis based on strict complementary distribution (Pereltsvaig 2004). Such an account at first seems viable in the Dravidian context as well, because there is another NPI *wh-um* or *wh-VV*, in Tamil & Telugu respectively, that occurs in more restricted negative contexts. The only context where a *wh-um* item is licensed is under clausemate negation –an AM context –precisely the context where the *wh-ainaa* item is banned. So it looks like NPI *wh-um* and NPI/FCI *wh-ainaa* are in complementary distribution, and an ‘elsewhere’ condition might account for their distribution. However, in one kind of context, both *wh-um* and *wh-ainaa* are permitted, thus breaking the complementary distribution pattern observed so far (1)-(2).

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| (1) evar-uu leeka-poo-tee raanu | (2) evar-ainaa leeka-poo-tee raanu |
| who-VV be.not-go-if come.not | who-ainaa be.not-go-if come.not |
| ‘(I) won’t come if there isn’t anybody.’ | ‘(I) won’t come if there isn’t anybody.’ |

AGAINST A BIPOLAR ANALYSIS: *wh-ainaa* can be analysed as a bipolar element (van der Wouden 1997) –a superweak NPI that is licensed in non-veridical contexts and simultaneously a weak PPI, due to which it is anti-licensed in AM contexts. In support, it would seem that its PPI nature comes through in the special conditions under which it can occur under negation, symptomatic of PPI-hood (Szabolcsi 2004) –scoping under metalinguistic negation; Shielding by an intervening operator (3); Locality (4); and, Rescuing (5).

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|---|---|
| (3) PRATI SAARII eed-ainaa tina-leedu | (4) eed-ainaa konnaanuni ana-leedu |
| every time what-ainaa ate-not | what-ainaa bought that said-not |
| ‘I didn’t eat something EVERYTIME.’ | ‘I did not say that I bought anything.’ |
| (5) eed-ainaa tina-kunDaa vast-ee nannu tirigi pampinceevaaru | |
| what-ainaa eat-not come-if me return send | |
| ‘If I came without eating anything, they used to send me back.’ | |

But how to ground a bi-polar item in the meaning/structure is unclear. Can both + and – polarity be primitives? This again seems a distributional rather than a grammatical explanation.

SEMANTIC DECOMPOSITION: *wh-ainaa* is built from an indefinite (the *wh-* word), and *ainaa*, the concessive form of *-aw* ‘to become’, a concessive scalar additive particle (CSAP). CSAPs like *aunque sea* in Spanish (Lahiri 2010) and *magari* in Slovenian (Crnic 2011) are known to have a restricted distribution –in DE and modal environments and banned from positive episodic and clausemate negation contexts. However CSAP *-ainaa* can occur in clausemate negation contexts with low-on-scale elements, and the distribution doesn’t match perfectly with *wh-ainaa*.

We adapt Lahiri (2010) and Crnic (2011) for the semantics of *-ainaa*. *-ainaa* has two focus-sensitive scalar operators in it: *EVEN* & *SOLO*. *SOLO* is also a weak existential quantifier. They associate with the same focussed element. *EVEN* triggers the scalar presupposition that its preja-

cent is less likely than a relevant alternative. *SOLO* triggers the scalar presupposition that its pre-jacent is more likely than a relevant alternative. These are two conflicting conditions and only those contexts that can somehow make both of them consistent allow for an element marked with *-ainaa* to survive. Positive episodic contexts are bad with both high-end & low-end of scale (6). *DE* contexts are good because *EVEN* can scope over the operator (7). *Y/N-Q* are also good (following Guerzoni (2004) for *Y/N-Op*) with a negative bias (8).

- (6) a. # [EVEN C₁] [SOLO C₀][Ramu read one_F book]
b. # [EVEN C₁] [SOLO C₀][Ramu read ten_F books]
- (7) a. [EVEN C₁] **OP_{DE}** [~~EVEN C₁~~] [SOLO C₀][Ramu read one_F book]
b. [EVEN C₁] [**IF** [SOLO C₀][Ramu read one_F book]he passes]
c. [EVEN C₁] [**¬** [SOLO C₀][Ramu read one_F book]]
- (8) a. [WHETHER_i [EVEN C₁] **t_i** [~~EVEN C₁~~] [SOLO C₀][Ramu read one_F book]]
b. [WHETHER] = $\lambda p.p, \lambda p\neg p$
c. [EVEN C₁] [SOLO C₀][Ramu read one_F book]
[EVEN C₁] [**¬** [SOLO C₀][Ramu read one_F book]]

We take the *wh*-indefinites that compose with *-ainaa* to be indeterminate pronouns, following Kratzer & Shimoyama (2002). They introduce a set of individual alternatives. The alternatives grow and are quantified by the closest quantificational operator. Here *SOLO* is the closest operator and it forces the low-end of the scale to be selected among the alternatives. So under negation, the derivation should go through just as in (7c). But it is ungrammatical. This is due to blocking by the other NPI forming scalar particle *-um*, that competes here (9).

- (9) a. *-um* = [EVEN][SOLO]_[uNEG] R ee-pustakam-um cadavaledu ‘R didn’t read any book.’
b. [EVEN C₁] [**NEG** [SOLO C₀]_[uNEG]][Ramu read one_F book]]
c. [EVEN C₁] [**¬** [SOLO C₀][Ramu read one_F book]]

Then what about contexts where *wh-um* and *wh-ainaa* are not complementary: contexts which have negation and another operator? Here free choice comes in; these contexts are analysed as having an exhaustification operator that associates with the domain of the existential quantifier *SOLO* and that is inserted above the imperative operator (10).

- (10) a. Imperative: ee-pustakam ainaa caduvu! ‘Read any book!’
b. [EVEN C₂ [**EXH** C₁ [**IMP** [SOLO C₀][read one_F book]]

In imperative + negation contexts, *SOLO* has to move past **¬** to make its context available to the *EXH* operator generated above *IMP* (11). The *SOLO* of *-um* has a _[uNEG] feature preventing it from moving past **¬** (12). This *SOLO* stays in-situ below **¬**, *EXH* is not generated, and there is no free choice reading. (11) & (12) are no longer comparable structures. Blocking can’t happen.

- (11) a. Imperative+Neg with *-ainaa*: ee-pustakam ainaa cadavaddu! ‘Don’t read any book!’
b. [EVEN C₂ [**EXH** C₁ [**IMP** [~~SOLO C₀~~][**¬** [SOLO C₀][read one_F book]]]]
- (12) a. Imperative+Neg with *-um*: ee-pustakam-uu cadavaddu! ‘Don’t read any book!’
b. [EVEN C₁ [**IMP** [**¬** [SOLO C₀]_[uNEG]][read one_F book]]]

Our analysis is summarized in (13), showing how we derive the distribution of *wh-ainaa*.

(13)

Tamil/Telugu	<i>wh-um</i>	<i>wh-ainaa</i>	Analysis
Only propositional $\exists$	–	–	[EVEN] presupposition violated
[Neg] alone	+	–	<i>-um</i> blocks <i>-ainaa</i>
[Neg] + another Op	+	+	<i>-ainaa</i> ’s [SOLO] in different configuration
Intensional	–	+	[EXH] allows [EVEN] presupposition
Conditional	–	+	[EVEN] over IF
Episodic <i>Y/N-Q</i>	–	+	[EVEN] over ¬