

A TYPOLOGY OF REPETITIVE(LY STRONG) DISJUNCTIONS

§1. **Overview.** This paper advocates a typological generalisation, and a theoretical account thereof, concerning the strength of coordinate (i.e., conjunctive and disjunctive) scalar implicatures that has not been recognised previously in the theoretical literature, namely: there exist two groups of languages. One group of languages express disjunction (DIS) of two arguments, ϕ and ψ , by **obligatorily** repeating the disjunctive morphemes ($=\kappa$) (I dub these OBL-languages). The other group **optionally** repeats the κ morpheme (I dub these OPT-languages). In the OPT group, a DIS expression ‘ ϕ **or** ψ ’ may be (ignoring embedding in DE contexts; cf. Chierchia 2013, 18–20) strengthened into an exclusive (XOR) format ‘**either** ϕ **or** ψ ’. In the OBL group, such means of enrichment are not available with the explanandum resting on, or at least correlating with, the morphosyntactic un/droppability of the DIS morpheme. Compare two seemingly identical disjunction expressions:

(1) **A typological split of (XOR interpretation of) repetitive disjunction:** $[\pm\text{OPT}] \Leftrightarrow [\pm\text{XOR}]$:

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| <p>a. DIS in OPT-languages: $[\pm\text{XOR}]$
 (SerBo-Croatian/English – SI possible):
 (ili) Mujo um Haso
 (or) M or H
 ‘(either) Mujo or Haso’[(EXCLUSIVE)]</p> | <p>b. DIS in OBL-languages: $[-\text{XOR}]$
 (Malayalam – SI impossible):
 ഇമാൻ ഓ ബീല് ഓ
 John *(oo) Bill oo
 J or B or
 ‘John or Bill’ [INCLUSIVE]</p> |
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The second type is clearly different from the first: the first (external) disjunction marker is not droppable, making polysyndeticity (viz. repetitiveness of morpheme) obligatory. Related to this is also the lack of availability of enrichment wrt. to exclusivity. In Malayalam, (1b) structure never obtains an enriched reading (Jayaseelan p.c., Amritavalli 2003), i.e. a scalar additive one for conjunction or an exclusive one for disjunction. Such languages have to resort to periphrastic measures; in Malayalam exclusive disjunction obtains only with addition of negated conjunction (akin to ‘but not both’; cf. Amritavalli 2003).

§2. **Theoretical ingredients.** To derive an explanation for the generalisation, we require and utilise the following (A–C). [A] A fine-grained compositional structure for coordination, which we adopt from Mitrović and Sauerland (2014) and Szabolcsi (2015) who exploit the neutral Junction operator from den Dikken (2006), as (2), shows (where κ stands for DIS particles cross-linguistically). I further assume there to exist a Boolean operator, β , which maps JP-denoting tuples onto Boolean values (the mapping is determined in the Minimalist spirit (Chomsky, 1995) Agree-wise narrow syntactically via a checking mechanism, in line with Rizzi’s (1990) relativised minimality (cf. Chierchia 2013). The LFs of the relevant operators are given.

- (2) $[\text{JP } \beta_{[u:\kappa]} [\text{JP } [\kappa_{P_1} \ \kappa_1^0 \ \text{ARG}_1] \ \text{J}^0 [\kappa_{P_2} \ \kappa_2^0 \ \text{ARG}_2]]]$
- a. $[[\text{J}^0](p)(q) = p \bullet q = \langle p, q \rangle$ (Winter, 1998, 1995; Szabolcsi, 2015)
 - b. $[[\kappa^0](p) = ?p = p \vee \neg p$ (Ciardelli et al., 2013) $\approx [[p]^{(g[\emptyset], h[\neg p])}$ (Brasoveanu and Szabolcsi, 2013)
 - c. $[[\beta_{[u:\kappa]}]] = \langle p, q \rangle \mapsto [p \vee q]$ (Mitrović, 2014)

[B] Adopting a postsuppositional analysis of disjunction of Brasoveanu and Szabolcsi (2013), we take the negative disjunct introduced by the inquisitive closure ($=?$) (within κ_{P_1}) to be a postsupposition (with the output assignment h and a singleton set of tests $\{\neg p\}$) met by the negative disjunct within κ_{P_2} . (Technical details omitted for space; see Brasoveanu and Szabolcsi 2013, 169ff.)

[C] To account for the typological split, we advocate an alternative-based semantics and a story of where and how alternatives and alternative-triggers are (featurally and, hence,

parametrically) grammaticised so as for the inferences (association with Focus, scalar implicatures (SIs)) to obtain. For this, we adopt Chierchia’s (2013) system of a syntactically present exhaustification operator, \mathfrak{X} , and a bidimensional alternative structure: σ for scalar and δ for (strictly) non-scalar or sub-domain alternatives.

§3. Parametrising disjunctive enrichment: \pm local δ -exhaustification. The analysis rests on the assumption that sub-domain δ -level exhaustification is unavailable in an OBL language like Malayalam. Inversely, an OPT language, like English, allows this options. I take enriched DIS to result from *local* exhaustification (within the κ P), which also syntactically correlates with the optional presence of the phonological index on the first κ (‘either’, ‘ili’ in 1a).

§4. Additional argument for \mathfrak{X} -presence within disjuncts. An \mathfrak{X} -bound syntactic object cannot be phonologically null, which is in line with Montalbetti’s generalisation (MG) for the *pro*-drop system:

- (3) **Montalbetti’s generalisation** (a.k.a Overt Pronoun Constraint)
 Overt pronouns cannot link to formal variables iff the alternation overt/empty obtains. (Montalbetti, 1984, 94)

We transplant MG to the domain of disjunctive SIs by abductively reasoning backwards from it: since the overt/empty alternation obtains in OPT DIS languages, the κ morpheme, when overt, is locally bound by \mathfrak{X} , hence the exclusive reading of repetitive DIS in an OPT language is the result from local exhaustification yielding a XOR SI. By contrast, κ particles in languages with obligatory κ -repetivity (Dravidian family, *int. al.*) do not bear the $[\delta]$ -feature, hence local SIs are incalculable. The phenomena of κ -drop and *pro*-drop are thus rather parallel.

§5. Discussion & extension. I will also show preliminary production and perception evidence from prosody. The results thus far confirm that speakers of a OPT language have, and perceive as more natural, a longer pause after the first disjunct in the repetitive enriched reading for disjunction than speakers of a OBL language. This seems to indicate that the prosody may be revealing a syntactic and inferential difference between the non/enriched readings assumed to result from the availability (of exhaustification) of δ -alternatives within the disjuncts.

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