Additive free choice items in unconditionals

Anamaria Fălăuş (CNRS, Nantes) and Andreea Nicolae (ZAS)

Overview This paper investigates modal inferences triggered by free choice elements and makes the following two contributions: (i) it brings to light a new morphological make-up in the realm of universal Free Choice Items (FCIs), and (ii) it shows how to derive the corresponding meaning in a compositional way. We further show that the pattern we investigate opens new perspectives regarding the connections between unconditionals and FCIs, in line with recent work by Szabolcsi 2019 and Gonzalez and Lohiniva 2020.

Distribution and interpretation A large number of FCIs follow one of two possible morphological patterns: (i) disjunctive particle+indefinite (e.g. Romanian *ori-cine*, lit. *or+who*) or (ii) additive particle+indefinite (e.g. Hindi *ek bhii*, lit. *also/even+one*). Here we bring to light another even more complex pattern: (iii) disjunction+additive+indefinite (e.g. Romanian *ori-şi-cine*, lit. *or+also+who*). As far as we know, to date there has been no compositional account for FCIs of this type. *Orişi*-elements, henceforth ADD-FCIs, and plain FCIs overlap in their distribution: they are both acceptable in unconditional structures (Rawlins 2013), shown in (1).

(1) Oricine/orişicine ar suna azi, sunt ocupată.
FCI/ADD-FCI cond.3sg ring today am busy
'Whoever were to call today, I'm busy.'

The distribution of ADD-FCIs is, however, more restricted than that of plain FCIs. In particular, note that ADD-FCIs are furthermore restricted to unconditional constructions bearing the conditional mood, as attested by their unacceptability with the indicative future in (2).

(2) Oricine/*orişicine va suna azi, sunt ocupată.
FCI/ADD-FCI will.3sg ring today am busy
'Whoever is going to call today, I'm busy.'

The contribution of ADD-FCIs seems to be that of conveying that even unlikely cases should be considered; e.g. in (1) that even if the queen of England were to call, I still wouldn't be available. In the following, we derive this interpretation as well as the restricted distribution as a result of a requirement introduced by the additive particle *şi*.

Deriving the free choice inference Universal FCIs are, at their base, existential quantifiers (Chierchia 2013, Dayal 2013); their distribution is restricted to modal contexts and they trigger an obligatory FC implicature. Following Fox 2007 for FC disjunction, we take this implicature to be the result of exhaustification with respect to pre-exhaustified alternatives. For example:

(3) Anyone may call.
a. Assertion: $\Diamond a \vee \Diamond b \vee \Diamond c$
b. Exhaustified Alternatives: $\{\Diamond a \wedge \neg\Diamond b \wedge \neg\Diamond c, \Diamond b \wedge \neg\Diamond a \wedge \neg\Diamond c, \Diamond c \wedge \neg\Diamond a \wedge \neg\Diamond b\}$
c. FC implicature: $\Diamond a \wedge \Diamond b \wedge \Diamond c$

Szabolcsi (2019) proposes a parallel analysis for unconditionals by taking them to denote, pre-implicature, the disjunction of conditionals created by replacing the FCI with each of its domain alternatives. The obligatory FC implicature is derived as above, via recursive exhaustification, delivering the intuitively correct meaning that the consequent will hold regardless, (4b).

(4) Whoever may call today, I'm busy.
a. Assertion: $\forall w \in W[(a\ \text{calls}_w) \rightarrow (\text{I'm busy}_w)] \vee \forall w \in W[(b\ \text{calls}_w) \rightarrow (\text{I'm busy}_w)] \vee \ldots$
b. FC implicature: $\forall w \in W \wedge \forall x \in \{a,b,c\}[(x\ \text{calls}_w) \rightarrow (\text{I'm busy}_w)]$

Licensing FCIs The restriction to modal environments is due to an additional requirement, e.g., a viability/fluctuation constraint [VC] (Dayal 2009, 2013 and Chierchia 2013). Here we adopt Szabolcsi's proposal, which rephrases this requirement as follows: a FCI is felicitous if each alternative described by the FCI clause is true in some but not all worlds. For example, VC would not be satisfied in (5a)'s model but it would be in (5b)'s for both (3) and (4) (where the relevant clause is the restrictor, namely that *x calls* where *x* is an element in the set {a,b,c}).

(5) a. W={w_1, w_2, w_3}, caller = {⟨w_1,{a,c}⟩, ⟨w_2,{a}⟩, ⟨w_3,{a,b,c}⟩}
b. W′={w_1, w_2, w_3}, caller = {⟨w_1,{a}⟩, ⟨w_2,{b}⟩, ⟨w_3,{c}⟩}

Widening the domain of individuals The contribution of the additive particle *şi* in *şi Mary$_F$ ate* 'Mary also ate' is that someone else ate. We argue that this can be derived via exhaustification wrt a pre-exhaustified alternative, as in (6); the relevant alternative is the focus associate of *şi*, namely *Mary*. When *şi* functions as an infix, the only difference lies in what the focus associate is, namely the domain of the existential ($D = \{a, b, c\}$). The alternatives are larger domains $D' = \{a, b, c, d\}$, as in (7). This delivers the intuitively correct meaning that ADD-FCIs make reference to larger domains than the corresponding FCI.

(6) a. Alt(şi p) = $\{p, exh\ p\}$
= $\{p, p \wedge \neg q\}$
b. $[\![$şi p$]\!] = p \wedge \neg(p \wedge \neg q) = \boxed{p \wedge q}$

(7) a. Alt(orişicine) = $\{\exists x \in D, exh[\exists x \in D]\}$
= $\{\exists x \in D, \exists x \in D \wedge \neg \exists x \in D'\}$
b. $[\![$orişicine$]\!] = \exists x \in D \wedge \exists x \in D' = \boxed{\exists x \in D'}$

Note that this exhaustification leads to weakening, but only locally so, since a further application of recursive exhaustification, as called for by the disjunctive FC particle *ori*, will result in a stronger conjunction than if *şi* hadn't applied. We conclude that exh_{si} must precede exh_{ori}.

Widening the domain of accessible worlds Recall the contrast in (1)-(2), which shows that the conditional mood is necessary to license ADD-FCIs. We argue that the contribution of *şi* makes the use of the indicative mood in the unconditional construction lead to a presupposition failure. We follow Schlenker (2005) who argues that the indicative carries a presupposition that the worlds under consideration are only those in the context set (CS), whereas a non-indicative mood carries no such presupposition. The VC is checked after the contribution of *şi* is taken into account, i.e., VC is checked wrt the larger set of entities. The additional entities make VC unsatisfiable since the worlds under consideration are only those in the CS. In order to satisfy VC, a larger set of worlds needs to be considered, hence the move to the conditional mood, which carries no restriction about the worlds under consideration, thus allowing even more remote worlds to be considered. The overall emphatic meaning associated with ADD-FCIs will thus emerge as an implicated presupposition by virtue of the fact that the presuppositionally stronger indicative mood was not chosen.

Open issues We argued that the use of conditional mood is how the VC is satisfied in cases involving the widened domain introduced by ADD-FCIs. We note, however, that for some speakers the conditional mood on its own is not sufficient to license ADD-FCIs as they do not accept (8), not an unconditional but an otherwise ideal licensing environment for a plain FCI.

(8) Aş vorbi cu oricine/*orişicine la telefon acum.
cond.1sg talk with FCI/ADD-FCI on phone now
'I would talk with anyone on the phone right now.'

This begs the question of why ADD-FCIs are restricted to unconditionals. Cross-linguistically, we find (i) FCIs that can occur in both regular FC environments such as (3) and unconditionals (e.g. Romanian *oricine*, Hungarian *akár* expressions, French *wh- que ce soit*), as well as (ii) FCIs that can only occur in regular FC environments (e.g. English *anyone*). The restricted distribution of the paradigm analyzed here enriches this cross-linguistic picture and provides further evidence that we need a better understanding of the connection between free choice and unconditionals.

Outlook This paper provides a compositional analysis of ADD-FCIs, which end up having the same meaning as a focused FCI. More generally, we showed that like in the case of focused *any*, the additive infix expands the set of alternatives, emphasizing the need for a better understanding of the interaction between focus and FCIs. While the interaction between focus and NPIs has been widely discussed in the literature and the contribution of focus-sensitive particles and stress is well understood in that area (e.g., Krifka 1995, Lahiri 1998, Chierchia 2013), to our knowledge, our study is the first to discuss this interaction in the realm of FCIs.

References: Chierchia 2013. *Logic in Grammar*. ⋆ Dayal 2013. *A viability constraint on alternatives for free choice*. ⋆ Fox 2007. *Free choice disjunction*. ⋆ Gonzales & Lohiniva 2020. *A Compositional Semantics for Free Choice Constituent Unconditionals.* ⋆ Rawlins 2013. *(Un)conditionals*. ⋆ Schlenker 2005. *The Lazy Frenchman's Approach to the Subjunctive* ⋆ Szabolcsi 2019. *Unconditionals and free choice unified.*