Korean *-lato* as additive free choice

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1 Introduction

▷ Two types of Polarity Sensitive Items (PSIs)

- Negative Polarity Items (NPIs)

  weak NPIs: grammatical in downward-entailing (DE) environments (Ladusaw 1979)

  (1) a. *I ate any pasta.
      b. I didn't eat any pasta.
      c. Every person who ate any pasta got sick.

  strong NPIs: grammatical in anti-additive (AA) environments (Zwarts 1996)

  (2) a. *I ate pasta in weeks.
      b. I didn't eat pasta in weeks.
      c. *Every person who ate pasta in weeks got sick.

- Free Choice Items (FCIs)

  (3) a. *I ate any pasta.
      b. You may eat any pasta.
      c. Eat any pasta.

▷ Cross-linguistic observation on PSIs

(i) NPIs and FCIs look alike: English *any*, German *irgendein*, Korean *nwukwu-to* vs. *nwukwu-na*, Japanese *dare-mo* vs. *dare-demo*, etc.

(ii) They appear to stem from indefinite expressions.

▷ The 'exhaustification' hypothesis (Chierchia 2013)

(i) NPIs and FCIs are subject to a unitary mechanism called 'exhaustification', which limits their distribution and strengthens their meaning in predictable ways.

(ii) NPIs and FCIs are both underlyingly simple indefinites.

This project
- focuses on a new type of PSI in Korean: *nwukwu-lato*
- aims to explain its distribution and meaning in conformity with the exhaustification hypothesis

2 Empirical data

▷ Korean PSIs: ∃ + *-to/-(i)na/-(i)lato*

- *hana-to* 'one-*to*', *cokum-to* 'little-*to*', *han myeng-to* 'one CL.HUM-*to*', *etten* N-*to* 'some N-*to*', …
- We focus on *nwukwu-to* 'who-*to*' (*wh*-existential or *quexistential*; see Hengeveld et al. 2023)

▷ *nwukwu-to* is a strong NPI

- *-to* is an additive

(4) Phasutha-*to* mek-ess-ta.
pasta-ADD eat-PST-DECL
'(I) also/even ate pasta.'

- affirmative episodic environment: ✗

(5) *Na-nun *nwukwu-to* manna-ass-ta.
I-TOP who-ADD meet-PST-DECL
'I met anyone.'

- negative episodic environment: ✓

(6) Na-nun *nwukwu-to* an manna-ass-ta.
I-TOP who-ADD NEG meet-PST-DECL
'I didn't meet anyone.'

- non-negative DE environment: ✗

(7) **Nwukwu-to* manna-ass-ta-myen yonguyca-i-ta.
who-ADD meet-PST-DECL-COND suspect-COP-DECL
'If you met anyone, you're a suspect.'

(8) **Nwukwu-to* manna-n motun salam-un yonguyca-i-ta.
who-ADD meet-REL every person-TOP suspect-COP-DECL
'Every person who met anyone is a suspect.'

- possibility modal & imperative: ✗

(9) *Na-nun *nwukwu-to* manna-l swu iss-ta.
I-TOP who-ADD meet-REL way exist-DECL
'I can meet anyone$_{\text{NPI}}$.'

(10) **Nwukwu-to* manna-la.
who-ADD meet-IMP
'Meet anyone$_{\text{NPI}}$.'

▷ *nwukwu-na* is an FCI

- *-na* is disjunction

(11) Phasutha-*na* phica-lul mek-ess-ta.
pasta-DISJ pizza-ACC eat-PST-DECL
'(I) ate pasta or pizza.'

- affirmative episodic environment: ✗

(12) *Na-nun *nwukwu-na* manna-ass-ta.
I-TOP who-DISJ meet-PST-DECL
'I met anyone.'

- negative episodic environment: ✗

(13) *Na-nun *nwukwu-na* an manna-ass-ta.[1]
I-TOP who-DISJ NEG meet-PST-DECL
'I didn't meet anyone$_{FCI}$.'

- non-negative DE environment: ✗

(14) **Nwukwu-na* manna-ass-ta-myen yonguyca-i-ta.
who-DISJ meet-PST-DECL-COND suspect-COP-DECL
'If you met anyone$_{FCI}$, you're a suspect.'

(15) **Nwukwu-na* manna-n motun salam-un yonguyca-i-ta.
who-DISJ meet-REL every person-TOP suspect-COP-DECL
'Every person who met anyone$_{FCI}$ is a suspect.'

- possibility modal & imperative: ✓

(16) Na-nun *nwukwu-na* manna-l swu iss-ta.
I-TOP who-DISJ meet-REL way exist-DECL
'I can meet anyone.'

(17) *Nwukwu-na* manna-la.
who-DISJ meet-IMP
'Meet anyone.'

▷ *nwukwu-lato* is ??

- *-lato* invokes a pragmatic scale (Kang 2023)

(18) Phasutha-*lato* mek-ko siph-ta.
pasta-LATO eat-CONN want-DECL
'(I) want to eat pasta.'
Presupposition?: 'Pasta ranks low on the scale of foods I want to eat.'

(19) ??Kum-meytal-*ilato* tta-ko siph-ta.
gold-medal-LATO win-CONN want-DECL
'(I) want to win the gold medal.'

- affirmative episodic environment: ✗

(20) *Na-nun *nwukwu-lato* manna-ass-ta.
I-TOP who-LATO meet-PST-DECL
'I met anyone.'

[1] *Nwukwu-na* can be made felicitous in environments without an overt modal, under an 'embedded' FC reading. This is attested for English *any* as well, e.g., *I didn't eat ANY pasta.* Chierchia (2013) analyzes such cases as involving a covert modal intervening between a DE operator and an FCI. We set these cases aside in this study.

- negative episodic environment: ✗

(21) *Na-nun *nwukwu-lato* an manna-ass-ta.
I-TOP who-LATO NEG meet-PST-DECL
'I didn't meet anyone.'

- non-negative DE environment: ✓

(22) *Nwukwu-lato* manna-ass-ta-myen yonguyca-i-ta.
who-LATO meet-PST-DECL-COND suspect-COP-DECL
'If you met anyone, you're a suspect.'

(23) *Nwukwu-lato* manna-n motun salam-un yonguyca-i-ta.
who-LATO meet-REL every person-TOP suspect-COP-DECL
'Every person who met anyone is a suspect.'

- possibility modal & imperative: ✓

(24) Na-nun *nwukwu-lato* manna-l swu iss-ta.
I-TOP who-LATO meet-REL way exist-DECL
'I can meet ANYone.'

(25) *Nwukwu-lato* manna-la.
who-LATO meet-IMP
'Meet ANYone.'

▷ Interim summary

	strong NPI *nwukwu-to*	FCI *nwukwu-na*	?? *nwukwu-lato*
affirmative episodic	✗	✗	✗
negative episodic	✓	✗	✗
non-negative DE	✗	✗	✓
possibility modal & imperative	✗	✓	✓

Puzzles
(i) Why is *nwukwu-lato* ungrammatical under negation but grammatical in non-negative DE environments? (Does this mean that it is a non-strong NPI?)
(ii) Why does *nwukwu-lato* behave like an NPI in non-negative DE environments but like an FCI in modal contexts?
(iii) What's going on with the 'emphatic' feel of *nwukwu-lato* in modal contexts?

3 Exhaustification

3.1 The EXH operator

▷ Various forms of exhaustification have been proposed in the literature: covert *only* (Chierchia 2006), Innocent Exclusion (Fox 2007), presuppositional exhaustification (Bassi et al. 2021), etc.

▷ We adopt the simplest version of Chierchia's.

(26) $[\![\text{EXH}]\!](Alt)(\text{p}) = \text{p}_w \wedge \forall \text{q} \in Alt : \text{p} \not\subseteq \text{q} \rightarrow \neg \text{q}_w$

▷ EXH plays a role in deriving scalar implicatures (Chierchia et al. 2012).

(27) Some pastas are easy to make.
- a. $\text{p} = \exists x \in \text{D} : \text{EASY-TO-MAKE}(x)$
- b. $Alt = \{\forall x \in \text{D} : \text{EASY-TO-MAKE}(x)\}$
- c. $[\![\text{EXH}]\!](Alt)(\text{p}) = \exists x \in \text{D} : \text{EASY-TO-MAKE}(x) \wedge \neg \forall x \in \text{D} : \text{EASY-TO-MAKE}(x)$

▷ It also plays a role in deriving FC effects (Fox 2007).

(28) You may eat pasta or pizza.
- a. $\Diamond(\text{pasta} \vee \text{pizza})$ (what is said)
- b. $\Diamond\text{pasta} \wedge \Diamond\text{pizza}$ (FC effect)

According to Fox (2007), FC effects arise as a result of exhaustification on *pre-exhaustified* (sub)domain alternatives (DAs) (cf. Sauerland 2004).

(29)
- a. DAs: $\Diamond$pasta, $\Diamond$pizza
- b. *pre-exh* DAs: EXH$\Diamond$pasta, EXH$\Diamond$pizza

(30) EXH$\Diamond$pasta $= \Diamond\text{pasta} \wedge \neg\Diamond\text{pizza}$ ($\sim$ *You're only allowed to eat pasta.*)

(31) You may eat pasta or pizza.
- a. $\text{p} = \Diamond(\text{pasta} \vee \text{pizza})$
- b. $Alt = \{\text{EXH}\Diamond\text{pasta}, \text{EXH}\Diamond\text{pizza}\}$
- c. $[\![\text{EXH}]\!](Alt)(\text{p}) = \Diamond(\text{pasta} \vee \text{pizza}) \wedge \neg\text{EXH}\Diamond\text{pasta} \wedge \neg\text{EXH}\Diamond\text{pizza}$
  $= \Diamond(\text{pasta} \vee \text{pizza}) \wedge \neg(\Diamond\text{pasta} \wedge \neg\Diamond\text{pizza}) \wedge \neg(\Diamond\text{pizza} \wedge \neg\Diamond\text{pasta})$
  $= \Diamond(\text{pasta} \vee \text{pizza}) \wedge (\Diamond\text{pasta} \rightarrow \Diamond\text{pizza}) \wedge (\Diamond\text{pizza} \rightarrow \Diamond\text{pasta})$
  $= \Diamond\text{pasta} \wedge \Diamond\text{pizza}$

3.2 Understanding *nwukwu-to* and *nwukwu-na*

In a nutshell

☞ NPI *nwukwu-to* activates DAs that must be obligatorily exhaustified.
A semantic contradiction arises if *nwukwu-to* is not under the scope of a DE operator.

☞ FCI *nwukwu-na* activates *pre-exhaustified* DAs that must be obligatorily exhaustified.
This derives the FC effect in modal contexts.

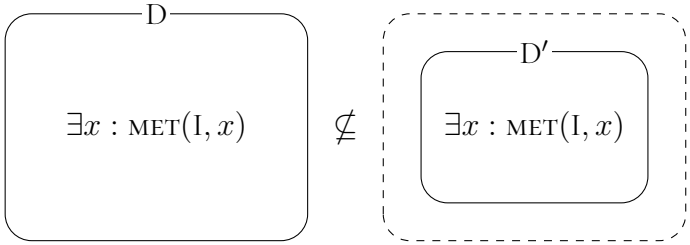
▷ *nwukwu-to* is an NPI

- affirmative episodic environment: ✗

(5) *Na-nun *nwukwu-to* manna-ass-ta.
I-TOP who-ADD meet-PST-DECL
'I met anyone.'

a. $p = \exists x \in D : \textsc{met}(I, x)$
b. $Alt = \{\exists x \in D' : \textsc{met}(I, x) | D' \subset D\}$
c. $[\![\textsc{exh}]\!](Alt)(p) = \exists x \in D : \textsc{met}(I, x) \wedge \bigwedge\{\neg\exists x \in D' : \textsc{met}(I, x) | D' \subset D\} = \bot$

(32)



(33) Suppose D = {Vincent, Jules}.

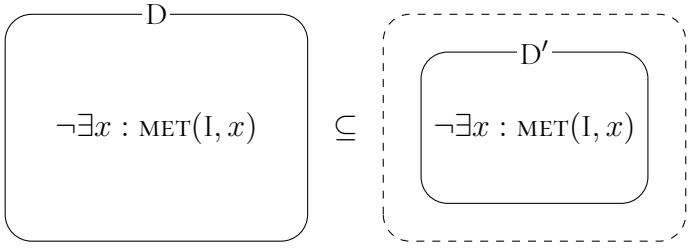
a. $p = \textsc{met}(I, v) \vee \textsc{met}(I, j)$
b. $Alt = \{\textsc{met}(I, v), \textsc{met}(I, j)\}$
c. $[\![\textsc{exh}]\!](Alt)(p) = (\textsc{met}(I, v) \vee \textsc{met}(I, j)) \wedge \neg\textsc{met}(I, v) \wedge \neg\textsc{met}(I, j) = \bot$

- negative episodic environment: ✓

(6) Na-nun *nwukwu-to* an manna-ass-ta.
I-TOP who-ADD NEG meet-PST-DECL
'I didn't meet anyone.'

a. $p = \neg\exists x \in D : \textsc{met}(I, x)$
b. $Alt = \{\neg\exists x \in D' : \textsc{met}(I, x) | D' \subset D\}$
c. $[\![\textsc{exh}]\!](Alt)(p) = p$ (vacuous exhaustification)

(34)



- possibility modal & imperative[2]: ✗

(9) *Na-nun *nwukwu-to* manna-l swu iss-ta.
I-TOP who-ADD meet-REL way exist-DECL
'I can meet anyone$_{NPI}$.'

a. $p = \Diamond\exists x \in D : \textsc{meet}(I, x)$
b. $Alt = \{\Diamond\exists x \in D' : \textsc{meet}(I, x) | D' \subset D\}$
c. $[\![\textsc{exh}]\!](Alt)(p) = \Diamond\exists x \in D : \textsc{meet}(I, x) \wedge \bigwedge\{\neg\Diamond\exists x \in D' : \textsc{meet}(I, x) | D' \subset D\}$

[2]Our discussion is limited to possibility modals, as the precise semantic characterization of imperatives remains unclear (see von Fintel & Iatridou 2017; Starr 2020, and references therein).

(35) Suppose D = {Vincent, Jules}.

a. $p = \Diamond(\textsc{meet}(I, v) \vee \textsc{meet}(I, j))$

b. $Alt = \{\Diamond\textsc{meet}(I, v), \Diamond\textsc{meet}(I, j)\}$

c. $[\![\textsc{exh}]\!](Alt)(p) = \Diamond(\textsc{meet}(I, v) \vee \textsc{meet}(I, j)) \wedge \neg\Diamond\textsc{meet}(I, v) \wedge \neg\Diamond\textsc{meet}(I, j) = \bot$

▷ *nwukwu-na* is an FCI

○ possibility modal & imperative: ✓

(16) Na-nun *nwukwu-na* manna-l swu iss-ta.
I-TOP who-DISJ meet-REL way exist-DECL
'I can meet anyone.'

a. $p = \Diamond\exists x \in D : \textsc{meet}(I, x)$

b. $Alt = \{\textsc{exh}\Diamond\exists x \in D' : \textsc{meet}(I, x) | D' \subset D\}$
$= \{(\Diamond\exists x \in D' : \textsc{meet}(I, x)) \wedge (\neg\Diamond\exists x \in D \setminus D' : \textsc{meet}(I, x)) | D' \subset D\}$

c. $[\![\textsc{exh}]\!](Alt)(p) = p \wedge \bigwedge\{\neg\textsc{exh}\Diamond\exists x \in D' : \textsc{meet}(I, x) | D' \subset D\}$
$= p \wedge \bigwedge\{\neg((\Diamond\exists x \in D' \ldots) \wedge (\neg\Diamond\exists x \in D \setminus D' \ldots)) | D' \subset D\}$
$= p \wedge \bigwedge\{(\Diamond\exists x \in D' \ldots) \rightarrow (\Diamond\exists x \in D \setminus D' \ldots) | D' \subset D\}$
$= \forall x \in D : \Diamond\textsc{meet}(I, x)$

(36) Suppose D = {Vincent, Jules}.

a. $p = \Diamond(\textsc{meet}(I, v) \vee \textsc{meet}(I, j)) = \Diamond\textsc{meet}(I, v) \vee \Diamond\textsc{meet}(I, j)$

b. $Alt = \{\textsc{exh}\Diamond\textsc{meet}(I, v), \textsc{exh}\Diamond\textsc{meet}(I, j)\}$
$= \{\Diamond\textsc{meet}(I, v) \wedge \neg\Diamond\textsc{meet}(I, j), \Diamond\textsc{meet}(I, j) \wedge \neg\Diamond\textsc{meet}(I, v)\}$

c. $[\![\textsc{exh}]\!](Alt)(p) = p \wedge \neg\textsc{exh}\Diamond\textsc{meet}(I, v) \wedge \neg\textsc{exh}\Diamond\textsc{meet}(I, j)$
$= p \wedge \neg(\Diamond\textsc{meet}(I, v) \wedge \neg\Diamond\textsc{meet}(I, j)) \wedge \neg(\Diamond\textsc{meet}(I, v) \wedge \ldots)$
$= p \wedge (\Diamond\textsc{meet}(I, v) \rightarrow \Diamond\textsc{meet}(I, j)) \wedge (\Diamond\textsc{meet}(I, v) \rightarrow \ldots)$
$= \Diamond\textsc{meet}(I, v) \wedge \Diamond\textsc{meet}(I, j)$

○ Some additional assumptions:

- Ruling out *nwukwu-na* in non-modal UE environments requires us to consider its scalar alternatives as well (Chierchia 2013).

(12) *Na-nun *nwukwu-na* manna-ass-ta.
I-TOP who-DISJ meet-PST-DECL
'I met anyone.'

a. $p = \exists x \in D : \textsc{meet}(I, x)$

b. $Alt = \{\textsc{exh}\ \exists x \in D' : \textsc{meet}(I, x) | D' \subset D\} \cup \underline{\{\forall x \in D : \textsc{meet}(I, x)\}}$

- We will not go into the details of this technical point, but note that the addition of scalar alternatives has (almost) no effect on (16).
- Ruling out *nwukwu-na* in non-modal DE environments requires positing a lexical condition that Chierchia terms 'Proper Strengthening'.

(37) $[\![\textsc{exh}_{PS}]\!] = \lambda A_{st,t}.\lambda p_{st} : \underline{[\![\textsc{exh}]\!](A)(p) \subset p}.\ [\![\textsc{exh}]\!](A)(p)$

- This is certainly not a satisfactory conclusion, and I leave it to future work to determine whether this condition can be reformulated as a more general constraint on exhaustification.

3.3 Strong NPIs

▷ We have not yet investigated whether *nwukwu-to* leads to a semantic contradiction in non-negative DE environments.

▷ The answer is no — contrary to our previous observation.

- non-negative DE environment: ✗

(8) **Nwukwu-to* manna-n motun salam-un yonguyca-i-ta.
who-ADD meet-REL every person-TOP suspect-COP-DECL
'Every person who met anyone is a suspect.'

a. $\text{p} = \forall x : [\exists y \in \text{D} : \textsc{met}(x, y)] \rightarrow \textsc{suspect}(x)$[3]
b. $Alt = \{\forall x : [\exists y \in \text{D}' : \textsc{met}(x, y)] \rightarrow \textsc{suspect}(x) | \text{D}' \subset \text{D}\}$
c. $[\![\textsc{exh}]\!](Alt)(\text{p}) = \text{p}$ (vacuous exhaustification)

Recall that $\exists y \in \text{D}' : \textsc{met}(x, y)$ entails $\exists y \in \text{D} : \textsc{met}(x, y)$. Since the left argument of *every* is DE, $\forall x : [\exists y \in \text{D} : \textsc{met}(x, y)] \rightarrow \textsc{suspect}(x)$ now entails $\forall x : [\exists y \in \text{D}' : \textsc{met}(x, y)] \rightarrow \textsc{suspect}(x)$.

▷ A widely held assumption in the literature is that the distinction between weak and strong NPIs arises from the dimension(s) of meaning to which they are sensitive (Gajewski 2011).

- Weak NPIs are sensitive only to assertive meanings.

(38) Only Jules ate any pasta.
P: Jules ate any pasta. (UE)
A: No one other than Jules ate any pasta. (DE)

- Strong NPIs attend to both assertive and non-assertive meanings, such as presuppositions and implicatures.

(39) *Only Jules ate pasta in weeks.
P: Jules ate pasta in weeks. (UE)
A: No one other than Jules ate pasta in weeks. (DE)

(40) *Every person who met *nwukwu-to* is a suspect.
P: $\exists x : [\exists y \in D : \textsc{met}(x, y)]$ (UE)
A: $\forall x : [\exists y \in D : \textsc{met}(x, y)] \rightarrow \textsc{suspect}(x)$ (DE)

▷ However, Chierchia notes:

"Embedding a [strong NPI] in the restriction of *no* appears to be degraded, even if *no* is both AA and presuppositionless:

(41) *No person that had seen Mary in weeks was contacted.

Perhaps such deviance has to do with locality. Maybe strong exhaustification is a strictly local (i.e. clause bound) phenomenon…"

[3] Strictly speaking, x should also be associated with some domain, a detail omitted here for brevity.

▷ I pursue this idea further and argue that this is in fact the only difference between weak and strong NPIs: strong NPIs are subject to locality, whereas weak NPIs are not.

(42) Every person who met *nwukwu-to* is a suspect.
a. EXH $\forall x : [\exists y \in D : \text{MET}(x, y)] \rightarrow \text{SUSPECT}(x)$
b. $\forall x : [\text{EXH } \exists y \in D : \text{MET}(x, y)] \rightarrow \text{SUSPECT}(x)$

The first LF is ruled out because it violates locality. The second LF yields a semantic contradiction, since from the perspective of EXH, *nwukwu-to* occurs in a UE environment.

3.4 Additive free choice

▷ Fălăuş & Nicolae (2022) introduce a novel class of FCI in Romanian, which they refer to as additive FCIs (ADD-FCIs).

(43) a. *orişicine*: *ori* 'DISJ' + *şi* 'ADD' + *cine* 'who' (ADD-FCI)
b. *oricine*: *ori* 'DISJ' + *cine* 'who' (FCI)

▷ In contrast to *oricine*, *orişicine* is shown to be felicitous in an unconditional structure only when the antecedent is marked with the conditional mood.

(44) a. {Oricine/*orişicine} va suna azi, sunt ocupată.
FCI/ADD-FCI FUT.3SG call today am busy
'Whoever is going to call today, I'm busy.'
b. {Oricine/orişicine} ar suna azi, sunt ocupată.
FCI/ADD-FCI COND.3SG call today am busy
'Whoever may call today, I'm busy.'

▷ Fălăuş & Nicolae's analysis of ADD-FCIs builds on two assumptions:

1. The additive *şi* signals exhaustification (EXH_{ADD}) on the *pre-exhaustified* variant of the prejacent.

(45) Şi Ana a venit la petrecere.
ADD Ana has come to party
'Even/also Ana came to the party.'
a. p = CAME(Ana)
b. *Alt* = {EXH CAME(Ana)}
= $\{\text{CAME}(\text{Ana}) \wedge \forall x \in \text{D} : x \neq \text{Ana} \rightarrow \neg\text{CAME}(x)\}$
c. $[\![\text{EXH}]\!](Alt)(\text{p}) = \text{CAME}(\text{Ana}) \wedge \neg[\text{EXH CAME}(\text{Ana})]$
$= \text{CAME}(\text{Ana}) \wedge \neg[\forall x \in \text{D} : x \neq \text{Ana} \rightarrow \neg\text{CAME}(x)]$
$= \text{CAME}(\text{Ana}) \wedge [\exists x \in \text{D} : x \neq \text{Ana} \wedge \text{CAME}(x)]$

2. EXH_{ADD} takes scope over EXH_{FCI}.

(46) $\exists x \in \text{D} : \text{P}(x) \rightarrow \boxed{\text{EXH}_{\text{FCI}}} \rightarrow \forall x \in \text{D} : \text{P}(x) \rightarrow \boxed{\text{EXH}_{\text{ADD}}} \rightarrow \forall x \in \text{D}^{\uparrow} : \text{P}(x)$,
where $\text{D} \subset \text{D}^{\uparrow}$.

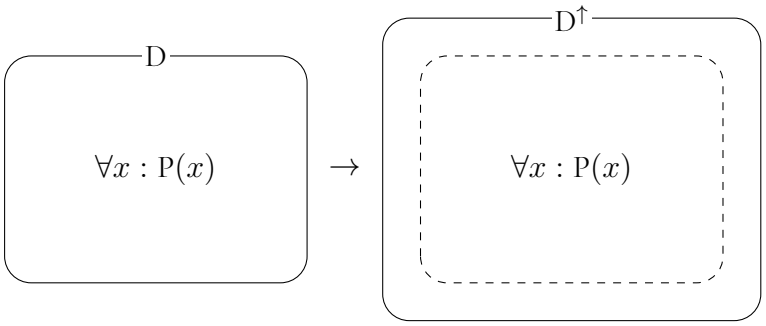
▷ When *şi* associates with a quantifier, Fălăuş & Nicolae argue that it triggers *domain widening*.

(47) a. $p = \forall x \in D : P(x)$

b. $Alt = \{\text{EXH}\ \forall x \in D : P(x)\}$
$= \{\forall x \in D : P(x) \wedge \neg\forall x \in D^{\uparrow} : P(x) | D \subset D^{\uparrow}\}$

c. $[\![\text{EXH}]\!](Alt)(p) = \forall x \in D : P(x) \wedge \neg[\text{EXH}\ \forall x \in D : P(x)]$
$= \forall x \in D : P(x) \wedge \forall x \in D^{\uparrow} : P(x)$, for some superset $D^{\uparrow}$
$= \forall x \in D^{\uparrow} : P(x)$, for some superset $D^{\uparrow}$

(48)



▷ The ungrammaticality of *orişicine* in (44a) is attributed to the domain widening effect; it quantifies over larger domains, which renders it incompatible with the indicative mood.[4]

Interim Summary
- EXH asserts the prejacent and negates all non-weaker alternatives.
- The distribution and meaning of *nwukwu-to* (NPI) and *nwukwu-na* (FCI) can be captured by a unitary mechanism, namely exhaustification.
- Strong NPIs require EXH in their immediate (clause-internal) scope.
- Romanian attests an additive FCI, *orişicine*, which is morphologically composed of an additive marker and a disjunction, and which yields domain-widening effects.

[4] This is a considerable simplification of their account of the incompatibility of *orişicine* with the indicative mood. I refer the interested readers to the original article for a comprehensive discussion.

4 Korean *-lato* as additive free choice

▷ I argue that *-lato* can also be decomposed into the disjunction *-la(-na)* and the additive *-to*.

	strong NPI *nwukwu-to*	FCI *nwukwu-na*	?? *nwukwu-la-to*
affirmative episodic	✗	✗	✗
negative episodic	✓	✗	✗
non-negative DE	✗	✗	✓
possibility modal & imperative	✗	✓	✓

▷ Generalization: *nwukwu-la-to* is locally an FCI but globally an NPI.

▷ local, non-modal contexts: ✗

(20) *Na-nun *nwukwu-la-to* manna-ass-ta.
I-TOP who-DISJ-ADD meet-PST-DECL
'I met anyone.'

(21) *Na-nun *nwukwu-la-to* an manna-ass-ta.
I-TOP who-DISJ-ADD NEG meet-PST-DECL
'I didn't meet anyone.'

◦ Compare:

(12) *Na-nun *nwukwu-na* manna-ass-ta.
I-TOP who-DISJ meet-PST-DECL
'I met anyone.'

(13) *Na-nun *nwukwu-na* an manna-ass-ta.
I-TOP who-DISJ NEG meet-PST-DECL
'I didn't meet anyone.'

◦ *Nwukwu-la-to* and *nwukwu-na* are ruled out in these environments for the exact same reasons.

(49) a. $\text{EXH}_{\text{ADD}}\ \text{EXH}_{\text{FCI}}\ \exists x \in \text{D} : \text{MET}(\text{I}, x)$
b. $\text{EXH}_{\text{ADD}}\ \text{EXH}_{\text{FCI}}\ \neg\exists x \in \text{D} : \text{MET}(\text{I}, x)$

▷ local, modal contexts: ✓

(24) Na-nun *nwukwu-la-to* manna-l swu iss-ta.
I-TOP who-DISJ-ADD meet-REL way exist-DECL
'I can meet ANYone.'

◦ Compare:

(16) Na-nun *nwukwu-na* manna-l swu iss-ta.
I-TOP who-DISJ meet-REL way exist-DECL
'I can meet anyone.'

- Local application of EXH_{FCI} yields an FC effect.

(50) $\text{EXH}_{\text{FCI}}\ \Diamond\exists x \in \text{D} : \text{MEET}(\text{I}, x)$
  a. $\text{p} = \Diamond\exists x \in \text{D} : \text{MEET}(\text{I}, x)$
  b. $Alt = \{\text{EXH}\Diamond\exists x \in \text{D}' : \text{MEET}(\text{I}, x) | \text{D}' \subset \text{D}\}$
  c. $[\![\text{EXH}]\!](Alt)(\text{p}) = \forall x \in \text{D} : \Diamond\text{MEET}(\text{I}, x)$ (FC effect)

- On top of (50), the application of EXH_{ADD} yields a domain widening effect.

(51) $\text{EXH}_{\text{ADD}}\ \forall x \in \text{D} : \Diamond\text{MEET}(\text{I}, x)$
  a. $\text{p} = \forall x \in \text{D} : \Diamond\text{MEET}(\text{I}, x)$
  b. $Alt = \{\text{EXH}\ \forall x \in \text{D} : \Diamond\text{MEET}(\text{I}, x)\}$
  c. $[\![\text{EXH}]\!](Alt)(\text{p}) = \forall x \in \text{D}^{\uparrow} : \Diamond\text{MEET}(\text{I}, x)$ (domain widening effect)

- The current analysis predicts an asymmetry between *nwukwu-na* and *nwukwu-lato*. This prediction is borne out.

(52) a. Na-nun *nwukwu-na* manna-l swu iss-ciman, *nwukwu-la-to* manna-l swu-nun
  I-TOP who-DISJ meet-REL way exist-but who-DISJ-ADD meet-REL way-TOP
  eps-ta.
  NEG.exist-DECL
  'I can meet anyone, but I can't meet ANYone.'
  b. #Na-nun *nwukwu-la-to* manna-l swu iss-ciman, *nwukwu-na* manna-l swu-nun
  I-TOP who-DISJ-ADD meet-REL way exist-but who-DISJ meet-REL way-TOP
  eps-ta.
  NEG.exist-DECL
  'I can meet ANYone, but I can't meet anyone.'

(53) a. $\forall x \in \text{D} : \Diamond\text{MEET}(\text{I}, x) \wedge \neg\forall x \in \text{D}^{\uparrow} : \Diamond\text{MEET}(\text{I}, x)$
  b. $\#\forall x \in \text{D}^{\uparrow} : \Diamond\text{MEET}(\text{I}, x) \wedge \neg\forall x \in \text{D} : \Diamond\text{MEET}(\text{I}, x)$

▷ non-local environments: ✓

(23) *Nwukwu-la-to* manna-n motun salam-un yonguyca-i-ta.
  who-DISJ-ADD meet-REL every person-TOP suspect-COP-DECL
  'Every person who met anyone is a suspect.'

- EXH_{FCI} satisfies the locality constraint, and EXH_{ADD} takes effect from across the DE operator.

(54) $\text{EXH}_{\text{ADD}}\ [\forall x : \text{EXH}_{\text{FCI}}\ [\exists y \in \text{D} : \text{MET}(x, y)] \rightarrow \text{SUSPECT}(x)]$

- Compare:

(8) **Nwukwu-to* manna-n motun salam-un yonguyca-i-ta.
  who-ADD meet-REL every person-TOP suspect-COP-DECL
  'Every person who met anyone is a suspect.'

- Here, EXH_{ADD} has to be in an embedded position due to locality.

(55) $\forall x : \text{EXH}_{\text{ADD}}\ [\exists y \in \text{D} : \text{MET}(x, y)] \rightarrow \text{SUSPECT}(x)$

5 Concluding remarks

What this paper tells us

- ☞ A novel class of PSIs: *-lato*
- ☞ *-Lato* can be decomposed into the disjunction *-la(-na)* and *-to*, which constitutes an instance of ADD-FCIs (Fălăuş & Nicolae 2022).
- ☞ The distribution and meaning of *-lato* can be accounted for in conformity with the exhaustification hypothesis, if (i) $\text{EXH}_{\text{ADD}} \gg \text{EXH}_{\text{FCI}}$, and (ii) locality.

Loose ends & future work

- ☞ cross-linguistic comparison
  - Romanian *orişicine* in environments other than unconditionals
  - Japanese *-demo* (cf. Nakanishi 2021)
  - other languages?
- ☞ connection with the pragmatic scale
- ☞ consequences of replacing Gajewski's (2011) theory with locality
  - presupposition/implicature in questions, conditionals, *at most* …?
- ☞ competing theories of NPI and related phenomena

References

Bassi, Itai, Guillermo Del Pinal & Uli Sauerland. 2021. Presuppositional exhaustification. *Semantics & Pragmatics* 14. 1–48.

Chierchia, Gennaro. 2006. Broaden your views: Implicatures of domain widening and the "logicality" of language. *Linguistic Inquiry* 37(4).

Chierchia, Gennaro. 2013. *Logic in grammar: Polarity, free choice, and intervention*. Oxford University Press.

Chierchia, Gennaro, Danny Fox & Benjamin Spector. 2012. Scalar implicature as a grammatical phenomenon. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, 2297–2331. De Gruyter.

Choi, Jinyoung. 2005. Another type of free choice effect: Korean *Amwu* N-*lato*. In John Alderete, Chung-hye Han & Alexei Kochetov (eds.), *Proceedings of the 24th West Coast Conference on Formal Linguistics*, 88–96.

Choi, Jinyoung. 2007. *Free choice and negative polarity: A compositional analysis of Korean polarity sensitive items*: University of Pennsylvania dissertation.

Fălăuş, Anamaria & Andreea C. Nicolae. 2022. Additive free choice items. *Natural Language Semantics* 30(2). 185–214.

von Fintel, Kai & Sabine Iatridou. 2017. A modest proposal for the meaning of imperatives. In Ana Arregui, María L. Rivero & Andrés Salanova (eds.), *Modality across syntactic categories*, 288–319. Oxford University Press.

Fox, Danny. 2007. Free choice and the theory of scalar implicatures. In Uli Sauerland & Penka Stateva (eds.), *Presupposition and implicature in compositional semantics*, 71–120. Springer.

Fox, Danny & Roni Katzir. 2011. On the characterization of alternatives. *Natural Language Semantics* 19(1). 87–107.

Gajewski, Jon R. 2011. Licensing strong NPIs. *Natural Language Semantics* 19(2). 109–148.

Giannakidou, Anastasia & Suwon Yoon. 2016. Scalar marking without scalar meaning: Nonscalar, nonexhaustive *even*-marked NPIs in Greek and Korean. *Language* 92(3). 522–556.

Guerzoni, Elena & Yael Sharvit. 2007. A question of strength: on NPIs in interrogative clauses. *Linguistics and Philosophy* 30(3). 361–391.

Hengeveld, Kees, Sabine Iatridou & Floris Roelofsen. 2023. Quexistentials and focus. *Linguistic Inquiry* 54(3). 571–624.

Kadmon, Nirit & Fred Landman. 1993. Any. *Linguistics and Philosophy* 16(4). 353–422.

Kang, Sang-gu. 2023. Focus and presupposition of Korean particle *-lato*. *Discourse and Cognition* 30(2). 1–15.

Kim, Jieun. 2020. On the semantics of an *even*-based polarity sensitive item, *wh-(N)-lato*. *Linguistic Research* 37(2). 147–186.

Ladusaw, William A. 1979. *Polarity sensitivity as inherent scope relations*: The University of Texas at Austin dissertation.

Lahiri, Utpal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6(1). 57–123.

Lee, Chungmin, Daeho Chung & Seungho Nam. 2000. The semantics of *amwu*-N-*to*/*-irato*/*-ina* in Korean: Arbitrary choice and concession. In Akira Ikeya & Masahito Kawamori (eds.), *Proceedings of the 14th Pacific Asia Conference on Language, Information and Computation*, 413–424.

Lim, Dongsik. 2017. On the distribution and the semantics of the Korean focus particle *-lato*. In Chungmin Lee, Ferenc Kiefer & Manfred Krifka (eds.), *Contrastiveness in information structure, alternatives and scalar implicatures*, 203–226. Springer.

Liu, Mingming. 2023. Additivity, scalarity and Mandarin universal wh's. *Natural Language Semantics* 31(2). 179–218.

Nakanishi, Kimiko. 2021. A clausal analysis of free choice *demo* in japanese. *Proceedings of the Linguistic Society of America* 6(1). 1024–1038.

Park, So-young. 2014. Ita and focus constructions in Korean. *Journal of Korean Linguistics* 71. 3–32.

Sauerland, Uli. 2004. Scalar implicatures in complex sentences. *Linguistics and Philosophy* 27(3). 367–391.

Starr, William B. 2020. A preference semantics for imperatives. *Semantics & Pragmatics* 13. 1–60.

Zwarts, Frans. 1996. Three types of polarity. In Fritz Hamm & Erhard Hinrichs (eds.), *Plurality and quantification*, 177–238. Dordrecht: Kluwer.