

Negation-transparent matrix predicates: Licensing of embedded NPIs

NPI: strength and strictness

Relevant NPI types for this poster; not an exhaustive classification of NPIs.

strong NPI:

- fine with negation, but not with *not every*

weak NPIs:

- fine with negation and with *not every*

strict NPIs:

- fine with clausemate licenser, in NegRaising, but not with factive *know*

- NPI-*need*, *lift a finger*; *all that Adj*

(1) Alex doesn't think/*know that we **need** call.

non-strict NPIs:

- fine with clausemate licenser, in NegRaising, and with factive *know*

- *ever*, *any*

(2) Alex doesn't think/know that we **ever** called.

Other matrix predicates

Horn 2014, Hoeksema 2017:

- Both strict and non-strict NPIs in declarative complement clause of non-veridical matrix predicates:

(3) I don't know that ...

this is **all that** complicated.

I **ever** thought of **any** of it as a list ...

- Neither strict nor non-strict NPIs in declarative complement clauses of speech reports:

(4) Alex did not write that Kim has ...

***ever** been helpful.

***lifted a finger** to support us.

Sailer 2021, 2022

- NPI licensing in semantic representation: at-issue and enriched

- **Weak NPIs:** Any NPI licenser is fine, but licensing must be in the at-issue content.

(5) Not everyone invited **anyone**.

$\neg\forall x\exists y(\text{inv}(x, y))$

(6) *Alex DID invite anyone.

$\exists y(\text{inv}(\mathbf{a}, x)) \wedge \text{reject}(\wedge \neg\exists x \text{inv}(\mathbf{a}, y))$

- **Strong NPIs:** Negation as only licenser, but licensing can also be in the non-at-issue content (enriched by presuppositions, CI, and generalized conversational implicatures)

(7) *Not everyone **lifted a finger**. $\neg\forall x(\text{lift-f}(x))$

(8) Alex DID **lift a finger**.

$\text{lift-f}(\mathbf{a}) \wedge \text{reject}(\wedge \neg\text{lift-f}(\mathbf{a}))$

Negation transparency of quantification over possible worlds

Zeijlstra 2017: Matrix negation is interpreted in the matrix clause

(9) I don't know that this is **all that** complicated. \neq I know that this is not **all that** complicated.

(10) Just because the Spanish Grand Prix is generally a processional race, doesn't mean that the circuit itself is **all that** bad. \neq ... means that the circuit isn't all that bad.

Quantification over worlds does not count as intervener

- Universal quantification over individuals blocks NPI licensing – quantification over worlds doesn't:

(11) Alex didn't give an/*every apple to **any** student.

(12) The user is not required to **lift a finger**. NOT > MUST > NPI

Default: If a predicate expresses a quantification over possible worlds, NPIs can be licensed directly within its complement clause

\Rightarrow No special assumptions needed for NPI-licensing in neg-raising, but what about veridical complement clauses and reports?

Blocking strict NPIs: Factive/veridical matrix predicates

Kastner 2015: Factive complement clauses are definite. **But:** No NPI-licensing into definites.

Montero & Romero 2023:

- Factivity and mood in Spanish declarative complement clauses

- Veridicality as scalar implicature (Romoli 2015): Scale $\text{know}(x, p) > p$, therefore $\neg\text{know}(x, p)$ can be exhaustified to $\neg\text{know}(x, p) \wedge p$

- Exhaustification leads to an enrichment in the sem. representation: $\neg\text{know}(x, p) \wedge p$

Extension of the NPI licensing theory:

- **Strict NPIs:** non-at-issue consistent: Every non-at-issue occurrence must be licensed.

- **Non-strict NPIs:** non-at-issue indifferent: Licensing must be in the at-issue content.

(13) Alex doesn't know that Kim invited anyone.

$\neg\text{know}(\mathbf{a}, (\dots \text{NPI} \dots)) \wedge (\dots \text{NPI} \dots)$

*Alex doesn't know that Kim **need** call.

$\neg\text{know}(\mathbf{a}, (\dots \text{NPI} \dots)) \wedge (\dots * \text{NPI} \dots)$

Blocking strict NPIs: *not be of the opinion that*

Zeijlstra 2017: Excluded-middle predicates that block strict NPIs (but not non-strict NPIs)

(14) I am not of the opinion that it would **ever** be used ... / *[C. will **breathe a word** about it].

- Content clause is not-at-issue, but the existence of such an opinion must be presupposed.

(15) Contrary to Kim, I don't think that Alex is right.

(Kim vs. I; Kim vs. Alex)

Contrary to Kim, I am not of the opinion that Alex is right.

(only Kim vs. I)

\Rightarrow **Non-strict NPIs** are licensed in the at-issue content, and non-at-issue content is ignored.

Strict NPIs are excluded because they have an unlicensed non-at-issue occurrence.

Blocking strict and non-strict NPIs: Speech report

Montero & Romero 2023: Modal analysis of speech reports, but without scalar alternative.

\Rightarrow Should behave like non-factive matrix predicates, i.e., license all NPIs.

Hoeksema 2017: NPIs with *say* only in "non-communicative"/attitudinal use:

(16) We saw a moonrise and a sunrise within 24 hours, something I can't say I've seen **in years**.

- ... but not in utterance-report use:

(17) = (4) Alex did not write that Kim has *[**ever** been helpful] / *[**lifted a finger** to help].

Tentative suggestion: Communicative use takes **definite** utterance as complement whose content entails the proposition expressed in the complement clause:

(18) x did not say $p \mapsto \neg\text{say}(x, \nu u. u \models p)$

Conclusion

- Horn 2014, Hoeksema 2017: Embedded licensing of strict NPIs is independent of Neg-Raising. Zeijlstra 2017: Excluded middle inference is neither necessary for licensing embedded strict NPIs (non-factive *know*), nor sufficient (*be of the opinion*)

- Non-syntactic reformulation of Zeijlstra's 2017 in-situ analysis of Neg-Raising with parallel account for non-factive *know* and *opinion* content clause.

- Generalization of Sailer's 2022 representational NPI-licensing: (i) Weak vs. strong NPI: at-issue licensing required vs. non-at-issue licensing possible; (ii) Non-strict NPI: single licensed occurrence sufficient; strict NPI: every non-at-issue occurrence must be licensed.

Open issues: Generalization to inherently negative matrix predicates (*be surprised*, *doubt*, *deny*, ...)

	non-strict	strict
weak	<i>ever</i> , <i>any</i>	<i>need</i>
strong	?	<i>all that</i> , <i>lift a finger</i>

	semantic representation	non-strict NPI	strict NPI
Neg-Raising, non-factive <i>know</i>	$(\neg\forall w\phi)$	ok	ok
factive <i>know</i>	$(\neg\forall w\phi) \wedge \phi$	ok	*
<i>be of the opinion</i>	$(\neg\forall w\phi) \wedge \exists p. p = \wedge \phi$	ok	*
speech report	$\neg\text{say}(x, \nu u. u \models \phi)$	*	*