On the Dependent Character of PI Licensing

Vincent Homer vincenthomer@gmail.com École normale supérieure-Institut Jean Nicod, Paris, France

1. The Problem

• The acceptability conditions of NPIs (ex. *any*) and PPIs (ex. *some*) don't seem to be the mirror images of each other. **No complementarity:**

(1) It's **impossible** that he stole anything.

(2) It's **impossible** that he stole something. ✓IMP.>SOME

• *Some* doesn't even seem to be anti-licensed by certain licensers of *any* (consensus so far: only Anti-Additive expressions are anti-licensers of *some*):

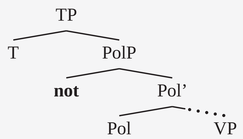
(3) **At most five people** stole something. ✓AT_MOST_5>SOME

(4) **No one** stole something. *NO_ONE>SOME

Q1: Is unification possible? I answer 'yes'.

2. Flip-flop Exists

• Assumption: Each clause, positive or negative, has a Pol head. Negation sits in Spec,PolP.



• The **French** NPI *quoi que ce soit* can be anti-licensed by an even number of DE expressions, similarly for *any* in **English dialect A** ((6) ok in dialect B) and *yet* in all English dialects:

(5) Il est **[impossible** qu' il ait volé quoi que ce soit.
it is impossible that he has stolen what that this be

(6) *Il n'est **[pas** ~~**[**~~ **impossible** qu'il ait volé quoi que ce soit.

(7) **[Non** qu'il soit **[imposs.** qu'il ait volé quoi que ce soit.

NPIs licensed in syntactic domains, not by operators.

• **Domain of π:** A constituent upon which the acceptability of π can be checked. Not all constituents are eligible: e.g. in each clause *C*, the **PolP** of *C* is the **minimal** domain of *quoi que ce soit*, i.e. the smallest constituent eligible for the checking of its acceptability (minimal domains are PI specific).

(5) $[_{TP}$ [PolP ↘1] **impossible** $[_{CP}$ [PolP ↗1] **[qqcs]$_1$**

(6)*$[_{TP}$ [PolP ↗1] **pas impossible** $[_{CP}$ [PolP ↗1] **[qqcs]$_1$**

(7) $[_{TP}$ [PolP ↗1] **non** $[_{CP}$ [PolP ↘1] **imp.** $[_{CP}$ [PolP ↗1] **[qqcs]$_1$**

• An NPI π^- is licensed in a sentence *S* only if π^- is in a **constituent** *A* of *S* such that *A* is DE w.r.t. the position of π^-.

• A constituent *A* is DE w.r.t. the position of α ($[\![\alpha]\!] \in D_\sigma$) iff the function $\lambda x.[\![A[\alpha/v_\sigma]]\!]^{g[v_\sigma \to x]}$ is DE. Gajewski 2005

Q2: Is the licensing of *any* environment-based in English dialect B? **Yes, cf. section 5.**

3. Flip-flop with PPIs

• What others (Szabolcsi (2004) a.o.) call 'rescuing' is nothing but flip-flop with PPIs. PolP is also the minimal domain of *some.*

(8) He did**[n't** steal something. *NOT>SOME

*$[_{TP}$ [TP ↘1] $[$ [PolP ↘1] **not something$_1$**

(9) It's **[imposs.** that he did**[n't** steal something. ✓IMP.>SOME

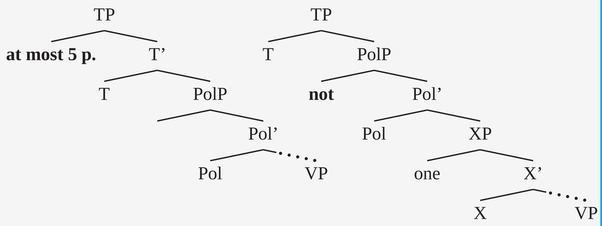
$[_{TP}$ [PolP ↗1] **impossible** $[_{CP}$ [PolP ↘1] **not something$_1$**

(10) It's **[not imp.** that he did**[n't** steal something. *NOT>SOME

*$[_{TP}$ [PolP ↘1] **not impossible** $[_{CP}$ [PolP ↘1] **not something$_1$**

4. A Confound

• Negativity is not the only difference between (3) and (4): the DE expressions are not in the same position. Negative quantifiers are made up of negation and an existential quantifier (Geurts 1996, Zeijlstra & Penka 2005, Iatridou & Sichel 2008, a.o.).



Q3: *Some* anti-licensed in DE environments?

5. Entanglement & Cyclicity

(11) It's **impossible** that someone stole something. IMP.>SOME

(12) It's **impossible** that anyone stole anything.

• *Some* and *any* are **entangled:** we witness a **polarity clash,** which shows that the acceptability of a PI in a given constituent *A* depends on the licensing of all other PIs in *A*.

(13) It's **impossible** that someone stole anything. *IMP.>SOME

*$[_{TP}$ [PolP ↘1 ↘2] **imposs.** $[_{CP}$ ↗1 ↗2 **someo$_2$** $[_{PolP}$ **anything$_1$**

⇒ The licensing of *any* is **environment-based in English$_B$,** but the minimal domain of *any* is smaller than PolP. **(Answ. to Q2)**

• **Licensing is cyclic:** the PPI in (14) is licensed at a previous stage of a **cycle.** Cyclicity visible with NPIs as well (15).

(14) It's **impossible** that anyone stole something. ✓IMP.>SOME

$[_{TP}$ [PolP ↘1 ↘2] **imposs.** $[_{CP}$ **anyone$_2$** [PolP ↗1] **something$_1$**

(15) It's **impossible** that anyone did **n't** steal anything.

$[_{TP}$ [PolP ↗1 ↘2] **imp.** $[_{CP}$ ↘1 ↗2 **anyo$_2$** [PolP ↘1] **not anyth$_1$**

• **Licensing of PIs:** A PI π is licensed in a sentence *S* only if π is contained in at least one eligible constituent *A* of *S* which has the right monotonicity w.r.t. the position of π, and all other PIs in *A* are licensed **within** *A*.

• Entanglement with 2 PPIs: –First , observe that a subject PPI can (only) reconstruct under a clausemate negation if it gets rescued. Two readings are possible (*Someone/Everyone is hiding*) in (16), depending on the position where the subject is interpreted.

(16) It's **impossible** that someone is**n't** hiding.

$[_{TP}$ [PolP ↗1] **impossible** $[_{CP}$ [PolP ↘1] **not someone$_1$**

$[_{TP}$ [PolP ↘1] **impossible** $[_{CP}$ ↗1 **someone$_1$** $[_{PolP}$ **not**

–Let's add a PPI (*somewhere*) which needs rescuing: the subject PPI can no longer outscope the lower negation.

(17) —A: Someone is hiding. $[_{TP}$ [PolP ↗1 ↗2] **impossible** $[_{CP}$ [PolP ↘1 ↘2] **not someone$_2$ somewhere$_1$**
—B: That's exactly true, it's **impossible** that someone is**n't** hiding somewhere.

(18) —A: Everyone is hiding. *$[_{TP}$ [PolP ↗1 ↘2] **impossible** $[_{CP}$ ↘1 ↗2 **someone$_2$** [PolP ↘1] **not somewhere$_1$**
—B: #That's exactly true, it's **impossible** that someone is**n't** hiding somewhere.
—B': That's exactly true, it's **impossible** that anyone is**n't** hiding somewhere.
$[_{TP}$ [PolP ↗1 ↘2] **impossible** $[_{CP}$ ↘1 ↗2 **anyone$_2$** [PolP ↘1] **not somewhere$_1$**

• Similar facts already observed with the PPIs *already* and *still* (Baker 1970, Ladusaw 1979, McCawley 1998):

(19) a. You ca**n't** convince me that someone has**n't** already solved this problem. *NOT>SOME>NOT; NOT>NOT>SOME
b. You ca**n't** convince me that someone has**n't** solved this problem. NOT>SOME>NOT; NOT>NOT>SOME

6. Licensing is Liberal

• *Some* and *any* licensed in different constituents in (20)-(21):

(20) It's **impossible** that he did**n't** steal anything.

$[_{TP}$ [PolP ↗1] **impossible** $[_{CP}$ [PolP ↘1] **not anything$_1$**

(21) It's **impossible** that he did**n't** steal something.

$[_{TP}$ [PolP ↗1] **impossible** $[_{CP}$ [PolP ↘1] **not something$_1$**

7. Complementarity

• With **entanglement,** we have a test: *some* is anti-licensed by **DEness,** not by non-monotonicity (unlike *any*): **(Answ. Q3)**

(22) **At most five people** sold someone anything. *n.s.SOME

(23) **No one** sold exactly 42 people *anything/something.

• The monotonicity properties that make *some* acceptable are the complement of the monotonicity properties that make *any* acceptable and vice versa.

• **In any given constituent** where acceptability is checked, *some* and *any* are in **complementary distribution.**

8. *Some* is not an Intervener

• Double object constructions with *any* and *some* in PolP:

(24) **At most five people** sold someone anything. *n.s.SOME

*[TP ↘1 ↘2] **at most 5 p.** [PolP ↗1 ↗2] **someo$_2$ anyth$_1$** sell

(25) **At most five people** sold anyone something. *n.s.SOME

*[TP ↘1 ↘2] **at most 5 p.** [PolP ↗1 ↗2] **anyo$_2$ someth$_1$** sell

• Other PPIs entangled with *any:*

(26) There is**n't** anyone here who would**n't** rather do *anything/something downtown. [Baker 1970] ✓NOT>NOT>SOME

• An inference can salvage a PPI by breaking the monotonicity in its position (against 'double licensing', Szabolcsi 2004):

(27) Make sure that he did**n't** steal something. ✓NOT>SOME
⇝ It is possible that he stole something.

9. Conclusion

- **Unified environment-based theory;**
- ***Some* and *any* are entangled;**
- **Licensing is cyclic.**

Selected References

Baker, C. L. (1970). Double negatives. *LI* 1:169-186. • **Gajewski,** J. (2005). Neg-raising: Polarity and presupposition. • **Ladusaw,** W. (1979). Polarity sensitivity as inherent scope relations. • **Szabolcsi,** A. (2004). Positive polarity - negative polarity. *NLLT* 22:409-452.