

On the source of additive presuppositions

Anna Szabolcsi

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Received Wisdom

(It's not the case that) BILL yawned too.
hard psp: someone other than Bill yawned

(It's not the case that) BILL didn't yawn either.
hard psp: someone other than Bill didn't yawn

(It's not the case that) Even BILL yawned.
hard psp: Bill was very unlikely to yawn
soft psp: someone other than Bill yawned

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RW ignored, though not contested

Chierchia (2013:148) [*even*-exhaustification]

$$(8) E_{ALT}(p) = p \wedge \forall q \in ALT [p <_{\mu} q] \quad \dots$$

I am treating the scalar component of *even* as part of the assertion, rather than as a presupposition... since nothing hinges on this, I stick the semantics in (8), for it is more parallel to the one we have been assuming for *O*. Moreover, *even* has an additive presupposition that some other alternative must be true. I am omitting the additive component of *even* just for simplicity.

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RW ignored, though not contested

Dorothy Ahn (2015:29), The semantics of additive *either*

I propose that additive *either* is a disjunctive counterpart of *too*, with its meaning identical to *too* except that it asserts a disjunction rather than a conjunction.

$$(30) [[\text{too}]](q)([[\mathbf{p}]]_{\sim C}) = \lambda w: q \in C - \{[[\mathbf{p}]]^o\} \cdot q_w \wedge [[\mathbf{p}]]^w$$

$$(31) [[\text{either}]](q)([[\mathbf{p}]]_{\sim C}) = \lambda w: q \in C - \{[[\mathbf{p}]]^o\} \cdot q_w \vee [[\mathbf{p}]]^w$$

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RW ignored, though not contested

Jovana Gajić (2016: 12-14), Coordination and focus particles (re?)united

Following Ahn's analysis for English...

(47) **I domaći** je uradila 'She also did the homework'

(48) Assertion: $p \wedge q$

(49) **Ni domaći** nije uradila 'She didn't do the homework, either'

(50) a. Assertion: $O^S \neg(p \vee q)$

e. After EXH: $\neg(p \vee q)$

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Goals of this talk

Following the literature in various other respects, this talk aims to account for the source, shape and presuppositional nature of the additive component.

It builds on focus alternatives, which are presuppositional in the sense of Abusch 2010.

The details of the analysis are motivated with reference to the fact that the same particles form free choice items and negative polarity items in many languages, from Hindi to Hungarian.

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Hungarian replicates RW

(It's not the case that) **BILL** yawned **too**.
 (Nem igaz, hogy) **BILL is** ásított.
 hard psp: someone other than Bill yawned

(It's not the case that) **BILL** didn't yawn **either**.
 (Nem igaz, hogy) Nem ásított **BILL sem** ásított.
 hard psp: someone other than Bill didn't yawn

(It's not the case that) **Even BILL** yawned.
 (Nem igaz, hogy) **Még BILL is** ásított.
 hard psp: Bill was very unlikely to yawn
 soft psp: someone other than Bill yawned

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H. *is* 'too' also builds NPIs and FCIs

- *vala-ki is*
 some-who too
 'anyone, weak negative polarity item (NPI)'
- *még/akár csak Bill is*
 even only Bill too
 'even Bill, weak negative polarity item (NPI)'
- *akár-ki is*
 even-who too
 'anyone, weak NPI or free choice item (FCI)'

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NPIs and FCIs are standardly analyzed as \exists/\forall expressions

which must occur within the immediate scope of a decreasing or modal operator.

Why must they? Chierchia (2013):

Anyone is an existential whose alternatives are obligatorily active (as per lexical semantics) and thus must be used, i.e. exhaustified.

This leads to a contradiction unless a decreasing or modal operator intervenes.

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$O[nly]_C$ negates the subdomain alternatives not entailed by the prejacent

O_C {There are any_D cookies left} =
 There are any cookies left in the kitchen but there aren't any cookies left in the cupboard and there aren't any cookies left in the oven ...

✓ O_C {There aren't any_D cookies left} =
 There aren't any cookies left in the kitchen because prejacent entails there aren't any cookies left in the cupboard and there aren't any cookies left in the oven ...

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Free Choice (Chierchia 2013)

\exists -FC You can bring anyone to the prom.
 ✓ But not more than one person.
irgendein, un NP qualsiasi/qualunque

\forall -FC The door is open, anyone can come in.
 # But not more than one person.
qualsiasi/qualunque NP

○ MODAL FCI_[scalar, Dom] ... \Rightarrow \exists -FC
 when rich, >2-member scale

○ FCI_[scalar, Dom] MODAL ... \Rightarrow \forall -FC
 when 2-member scale

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Proposal: *is* plays the same abstract role in *Bill is* 'Bill too' and *valaki is* 'anyone,' ...

Is must have a sparse semantics that is applicable in all constructions where its presence is critical.

Is seeks out a set of alternatives and "activates" them (in the sense of Chierchia 2013), i.e. makes their exhaustification mandatory.

In different constructions the alternatives may be different and may be exhaustified in different ways. That is why *Bill is* ends up with an additive presupposition and *valaki is* as a negative polarity item.

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“Additive particles”

It follows that additive presuppositions must be derived from a disjunction of alternatives using some method of exhaustification.

- What kind of alternatives?
- What shape of alternatives?
- What kind of exhaustification?
- Why presuppositional?

With the motivation now in place, we return to English.

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Too, either, even associate with focus

- IRMA battered the Caribbean, too.
- Irma battered the CARIBBEAN, too.

Focus invokes a set of of propositional alternatives (Rooth 1992)

$$\{\{w: \varphi_w\}, \{w: \chi_w\}, \{w: \psi_w\}\} = \{\{w: \varphi_w\}\} \cup \{\{w: \chi_w\}\} \cup \{\{w: \psi_w\}\}$$

The focus-alternative set is on a par with the core \exists/\forall semantics of NPIs and FCIs.

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What shape of alternatives?

Too, either, even, just like *only*, bifurcate the set of focus alternatives into two singleton sets corresponding to the assertion/prejacent and everything else.

BILL yawned too [incomplete]

- asserts: $\text{yawn}_{w^*}(b)$
- focus alternatives ALT: $\{\{w: \text{yawn}_w(b)\}\} \cup \{\{w: \text{yawn}_w(m)\}\} \cup \{\{w: \text{yawn}_w(k)\}\}$
- bifurcated, BI-ALT: $\{\{w: \text{yawn}_w(b)\}\} \cup \{\{w: \text{yawn}_w(m) \vee \text{yawn}_w(k)\}\}$

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What kind of exhaustification?

Recursive exhaustification of a disjunction without negating the stronger (conjunctive) alternative yields a conjunction. Linguistic applications:

Bar-Lev & Margulis 2013 for Modern Hebrew *kol*, Mitrović 2014 for Japanese *mo*, Bowler 2014 for Warlpiri *manu*, Singh et al. 2016 for Child English *or*

A modification of Fox 2007 for free choice. Here, the conjunctive alternative is not negated, because the language has not word for it, or the child cannot access it.

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from Bar-Lev & Margulis 2013

EXH EXH kol boy arrived
avb

$\text{Alt}(avb) = \{avb, a, b\}$

Note: $a \wedge b$ is not an alternative.

EXH $\text{Alt}(avb) [avb] = avb$

B/c neither a, nor b is excludable. Why? $\{avb, \neg a\}$ and $\{avb, \neg b\}$ are both consistent sets and maximal as such. But $a, b \notin \{avb, a\} \cap \{avb, b\}$. If $a \wedge b$ were in $\text{Alt}(avb)$, it would be excludable; EXH(avb) would be $\{avb \wedge \neg(a \wedge b)\}$.

$\text{Alt}_{\text{EXH_Alt}}(avb) [avb] =$

$\{\text{EXH_Alt}(avb) [avb], \text{EXH_Alt}(avb) [a], \text{EXH_Alt}(avb) [b]\} =$
 $\{\text{avb}, a \wedge \neg b, b \wedge \neg a\}$

EXH $\text{Alt}_{\text{EXH_Alt}}(\text{EXH_Alt}(avb)) [avb] [\text{EX_Alt}(avb) [avb]] =$

EXH $\{avb, a \wedge \neg b, b \wedge \neg a\} [avb] =$

Now $a \wedge \neg b$ and $b \wedge \neg a$ are negated; the negations are consistent with avb.

$avb \wedge \neg(a \wedge \neg b) \wedge \neg(b \wedge \neg a) =$

$avb \wedge (a \rightarrow b) \wedge (b \rightarrow a) =$

$avb \wedge (a \leftrightarrow b) =$

$a \wedge b$

EXH-EXH by *too / either*, presuppositionality not figured in yet

BILL yawned too asserts: $\text{yawn}_{w^*}(b)$

- focus alternatives bifurcated, BI-ALT: $\wp\{\{w: \text{yawn}_w(b)\}\} \cup \wp\{\{w: \text{yawn}_w(m) \vee \text{yawn}_w(k)\}\}$
- EXH-EXH(BI-ALT) = $\wp\{\{w: \text{yawn}_w(b)\}\} \cap \wp\{\{w: \text{yawn}_w(m) \vee \text{yawn}_w(k)\}\}$

BILL didn't yawn either asserts: $\neg \text{yawn}_{w^*}(b)$

- EXH-EXH(BI-ALT) = $\wp\{\{w: \neg \text{yawn}_w(b)\}\} \cap \wp\{\{w: \neg \text{yawn}_w(m) \vee \neg \text{yawn}_w(k)\}\}$

[\wp ensures that \cap is correct, as in Inquisitive Sem.]

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Is the truth of at least one focus alternative presupposed in English?

Rooth 1999, "Association with focus or ..."

(23) A: Did anyone win the football pool this week?
B: Probably not, because it's unlikely that [Mary]_F won it, and she's the only one who ever wins.
B': Probably not, because it's unlikely that it's [Mary]_F who won it, and she's the only one who ever wins.

"In this case, I do find the cleft variant incoherent and contradictory. In contrast, the focus variant is fine. This is an argument against systematically giving focus a semantics of existential presupposition."

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Is that a strong argument?

- We don't know exactly what clefting adds to plain intonational focus. How can the behavior of clefts be the gold standard for presupposition projection?
- Current literature agrees that focus in Hungarian carries an existential presupposition. But,
(23) B: Nem valószínű, hogy [Mari]_F nyerte meg, és ő az egyetlen, aki nyerni szokott.
B': ? Nem valószínű, hogy [Mari]_F volt (az), aki megnyerte, és ő az egyetlen, aki nyerni szokott.
B is perfect, so it can't be the existential presupposition that makes B' bad (Eng.) or less good (Hungarian). It must be something else about clefts.

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More promising positions

- Geurts & van der Sandt 2005

The Background-Presupposition Rule

Whenever focusing gives rise to a background $\lambda x. \varphi(x)$, there is a presupposition to the effect that $\lambda x. \varphi(x)$ holds of some individual.

- Abusch (2010:23)

Default Constraint [yields soft triggers]

If a sentence γ is uttered in a context with common ground c , and γ embeds a clause ψ which contributes an alternative set Q , then c is such that the corresponding local context d for ψ entails the disjunction of Q .

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If focus is a soft trigger, why are *too* and *either* (but not *even*) hard ones?

Crnič (2011:7)

The principle of non-vacuity

The meaning of a lexical item used in the discourse must affect the meaning of its host sentence (either its truth-conditions or its presuppositions).

If discourse canceled the \exists -psp (as opposed to its being locally accommodated), *too* would be vacuous. In contrast, the likelihood psp of *even* would remain in place, so *even* would not be vacuous.

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BILL yawned asserts: $\text{yawn}_{w^*}(b)$

- focus alternatives ALT:
 $\{\{w: \text{yawn}_w(b)\}\} \cup \{\{w: \text{yawn}_w(m)\}\} \cup \{\{w: \text{yawn}_w(k)\}\}$
- presupposition: $\exists p \in \text{ALT}. p_{w^*}$

BILL yawned too asserts: $\text{yawn}_{w^*}(b)$

- focus alternatives bifurcated, BI-ALT:
 $\wp\{w: \text{yawn}_w(b)\} \cup \wp\{w: \text{yawn}_w(m) \vee \text{yawn}_w(k)\}$
- EXH-EXH(BI-ALT) = $\wp\{w: \text{yawn}_w(b)\} \cap \wp\{w: \text{yawn}_w(m) \vee \text{yawn}_w(k)\}$
- presupposition: $\exists p \in \text{EXH-EXH(BI-ALT)}. p_{w^*}$

BILL didn't yawn either asserts: $\neg \text{yawn}_{w^*}(b)$

- EXH-EXH(BI-ALT) = $\wp\{w: \neg \text{yawn}_w(b)\} \cap \wp\{w: \neg \text{yawn}_w(m) \vee \neg \text{yawn}_w(k)\}$
- presupposition: $\exists p \in \text{EXH-EXH(BI-ALT)}. p_{w^*}$

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First conjunct contra the assertion

- BILL yawned too

Since the sentence already asserts that Bill yawned, the first conjunct is filtered, and the remaining presupposition that projects is that someone other than Bill yawned.

- It is not the case that BILL yawned too

"Bill yawned" is not asserted -- it is locally accommodated (thank-you to Masha Esipova)

cf. Heim 1988 for "The king of France didn't come," discouraging the assumption that France has a king.

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slides for Q&A, not in handout

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Is / too not strictly anaphoric to a linguistic antecedent

Brasoveanu & Szabolcsi 2013,
pace Heim 1990, Kripke 2009

Little girl regularly complains to her mother that she stands out among her friends by not having a Barbie doll. Mother eventually relents, they go and purchase a Barbie. Mother says to little girl:

Now you have a Barbie too!

Now you, in addition to them, have a Barbie.

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Is / too not strictly anaphoric to a linguistic antecedent

Brasoveanu & Szabolcsi 2013,
pace Heim 1990, Kripke 2009

A: I see that you have submitted abstracts to phonology conferences, semantics conferences, historical conferences... Do they all pass muster?

B: Don't worry, I seek appropriate advice.

A: Always talk to your advisor too!

Always talk to your advisor, in addition to them.

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