Additivity, Accommodation, and Alternatives

(Based on joint work with Donáti Flóra Lili)

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Additive Particles

*(1) <u>Katie</u> is having dinner in NY, **too***

*(2) <u>Katie</u> is **also** having dinner in NY*

- Additive particles are focus-sensitive, e.g. (1)/(2) vs. *<u>dinner</u>*
- Naive existential analysis:
  - Presupposition: Someone other than Katie is having dinner in NY

Kripke's (2009) observation

(3) # *<u>Katie</u> is having dinner in NY right now, **too***

- It's common knowledge that many people are having dinner now in NY
- If the additive presupposition is merely existential, it should be satisfied

Anaphoric presupposition

- Kripke (2009) claims that the additive presupposition is **anaphoric**

> (3) *<u>Katie</u> is having dinner in NY right now, **too***
>
> - Add.Pres: ***pro*** ≠ Katie and is having dinner in NY right now
> - Pronominal referents cannot be (easily) accommodated, e.g. *#He is having dinner in NY*

- This idea has been popular (Heim 1990, 1992, Geurts & Van der Sandt 2004, Beaver & Zeevat 2007, Chemla & Schlenker 2012, a.o.)

☞ (At least) some presuppositions are not merely propositional

Sidenote 1

- Kripke seems to think that the anaphora involved is propositional (see also Beaver & Zeevat 2007, Tonhauser et al. 2011)

> *(3) <u>Katie</u> is having dinner in NY right now, **too***
>
> - Additive Presupposition
> ***pro*** ≠ that Katie is having dinner in NY now but is 'parallel' to it and true

- The two versions of the anaphoric theory are not entirely identical, but let's focus on the pronominal version, to simplify the discussion

Sidenote 2

- Kripke presents another argument for the anaphoric analysis

(4) *If Herb and his wife both come to the party, then [the boss]$_F$ will come, too.*

  - This implies: Herb ≠ the boss and his wife ≠ the boss

- Ruys (2015) argues (convincingly in my opinion) that this observation doesn't provide support for the anaphoric analysis, so we won't discuss it here

Roadmap 1

1. Against the anaphoric theory

- Prediction:
  Restrictions on accommodation of additive presuppositions = restrictions on accommodation of pronominal reference

- We'll examine some exceptional cases where accommodation is possible, and point out that pronominal reference cannot be accommodated

  ☞ Accommodation of additive presuppositions and accommodation of pronominal reference are constrained in different ways

Roadmap 2

2. Our proposal

   - Two processes:
     A. Accommodate contextually relevant focus alternatives
     B. Compute the additive presupposition, and accommodate it, if necessary

   - Nothing special about B.

   - Due to A., additive presuppositions appear special, but A. is shared with other focus-sensitive phenomena

3. Focused quantifiers

When accommodation is possible

Exceptions

- The literature contains some examples where the additive presupposition can be accommodated
- Generally, when the additive presupposition is satisfied by an **indexical element** (speaker, hearer, current location, current time, etc.), accommodation is possible

Indexical antecedents

*(5) <u>Katie</u> is having dinner in NY right now, **too***

- Antecedent = we
- Maybe not completely 'out of the blue', but there's no such thing as a completely null context
- e.g. Kripke's context implicitly assumes that the interlocutors are *not* having dinner in NY

Indexical antecedents

(6) *Hey, <u>that kitten</u> has feelings too, you know!* (Ruys 2015: p. 359)

- Antecedent = hearer or speaker+hearer

(7) *<u>The Russians</u> love their children too.* (from *Russians* by Sting, 1985) (Ruys 2015: p. 359)

- Antecedent = 'we Westerners/capitalists'

(8) Two women are standing at a bus stop on a rainy day. A car drives by, through a puddle, splashing one of the women with muddy water. To the splashed woman
One splashed <u>me</u> this morning, too. (Grubic 2019: p. 173)

- Antecedent = hearer

More indexical antecedents

(9) We've just entered a cafe:
I came here <u>this morning,</u> too.

- Antecedent = now

(10) We are in a very busy restaurant, waiting for our food; Pointing at the restaurant on the other side of the street:
Look, there are many people <u>in that restaurant</u>, too

- Antecedent = here

Non-indexical antecedents

- It might look tempting to say something special about indexicality, but there are also exceptional cases that do not involve indexical antecedents

(11) Dean: *Do PhD students even have families to take care of?*
StudentRep: *<u>PhD students</u> have families, too.* (Ruys 2015: p. 359)

- Antecedent = Professors + University staff; similar-aged people outside grad school

(12) Guard: I am sorry, small children are not allowed to enter. (Ruys 2015: p. 359)
Child: That's not fair! <u>I</u> deserve the right to enter the garden, too.

- Antecedent = big children (+ adults)

Non-indexical antecedents

(13) Sam used to be really poor, which made him feel ostracized and lonely. But now that Sam has struck it rich, he no longer feels alone.
*Now <u>he</u> **too** can drive a Mercedes, and have dinner in fancy restaurants in New York.*

(Ruys 2015: p. 356)

- Antecedent = his rich friends/people in his circle/other rich people

Minimal triple

(14) A phonologist friend comes to your office and asks:

 # Did <u>you</u> get into SALT too?

(15) A semanticist friend comes to your office and asks:

✓ *Did <u>you</u> get into SALT too?*

- Antecedent = speaker

(16) A phonologist friend comes to your office with a semanticist, Katie. He asks:

✓ *Did <u>you</u> get into SALT too?*

- Antecedent = Katie

Against the anaphoric theory

The prediction

- So, the additive presupposition can be accommodated in some cases
- This in itself is not a problem for the anaphoric theory
  - What it predicts is that the same restrictions apply to accommodation of antecedents for (pronominal) anaphora and accommodation of additive presuppositions
- But pronominal anaphora seems to be more constrained than additive presuppositions

☞ Restrictions on accommodation of additive presuppositions cannot be reduced to restrictions on anaphora

Anaphora is more constrained

(13) Sam used to be really poor, which made him feel ostracized and lonely. But now that Sam has struck it rich, he no longer feels alone.
*Now <u>he</u> **too** can drive a Mercedes, and have dinner in fancy restaurants in New York.*

(Ruys 2015: p. 356)

- Antecedent = his friends/people in his circle

(17) Sam used to be really poor, which made him feel ostracized and lonely. But now that Sam has struck it rich, he no longer feels alone.
*# He hangs out with **them** in Manhattan all the time.*

Anaphora is more constrained

(12) Dean: *Do PhD students even have families to take care of?*
StudentRep: *PhD students have families, too.*

(Ruys 2015: p. 359)

- Antecedent = Professors + university staff

(18) Dean: *Do PhD students even have families to take care of?*
StudentRep: # *Do you think only* ***they*** *have families?*

Quantifiers

- The anaphoric theory makes problematic predictions for cases where the focus associate is a quantifier

(19) If some girls came to the party, then <u>some boys</u> did, too.

(20)?? If no girls came to the party, then <u>some boys</u> did, too.

(21) If John didn't invite all the girls, then he invited <u>some boys</u>, too.

- I'll come back to this later

Alternatives and accommodation

Idea

- We'll try to understand restrictions on accommodation of additive presuppositions in terms of two processes:

  A. Accommodate relevant focus alternatives
  B. Compute the additive presupposition, and accommodate it, if necessary

- Nothing special about presupposition accommodation in B.
- A. is constrained in a different way; this will explain Kripke's observation

Focus semantics for additive particles

- It's uncontroversial that additive particles are focus sensitive
- We assume Alternative Semantics (Rooth 1985, 1992)
  - A focus introduces alternatives
  - Following Fox & Katzir (2011), we assume that focus alternatives are linguistic expressions (more on this later)
  - The set of alternatives is contextually restricted

Alt_c('*<u>Katie</u> danced*')
= {'*Katie danced*', '*James danced*', '*Flóra danced*'}

Fox & Katzir on alternatives

- Let's adopt Fox & Katzir's (2011) theory of focus alternatives
- They argue that focus alternatives are constructed in the same way as alternatives used to derive scalar implicatures (cf. Rooth 1992)
  - Alternatives for implicatures are standardly assumed to involve linguistic expressions (though not everyone thinks so)
  - Katzir (2007) proposes a structural constraint on alternatives to circumvent the 'symmetry problem' (but see Breheny et al. 2018)
  - Fox & Katzir point out that the symmetry problem arises with focus too, and extend Katzir's solution to focus

Structural Alternatives

- $\text{Alt}_c(\phi)$ is a set of alternatives obtainable by successive replacements of focused constituents in ϕ with elements of the substitution source for ϕ in *c*
- The substitution source for ϕ in *c* is the smallest set containing:
  - Everything in the lexicon (Lexical replacement)
  - All subconstituents of ϕ (Simplification)
  - 'Contextually salient' expressions in *c*

- E.g. '<u>*Some*</u>' won't have '*some but not all*' as an alternative, unless it is contextually salient
- We'll argue that 'contextually salient' doesn't require that the expression has been actually uttered

Examples

(22) *<u>Katie</u> danced.*

- '*James danced*' is a potential alternative, derived via Lexical Substitution
- '*James and Andy danced*' is not, unless '*James and Andy*' is contextually salient

(23) *<u>The man or the woman</u> danced*

- '*The man and the woman danced*' is a potential alternative, derived via Lexical Substitution
- '*The man danced*' is a potential alternative, derived via Simplification

Semantics of additive particles

'*too ϕ*' in context *c*

- Asserts and presupposes the same thing as ϕ
- Additive presupposition: ψ is true, for each $\psi \in Alt_c(\phi)$ that is not Strawson-entailed by ϕ

- This semantics takes sentential scope but it's routine to type-generalise it (omitted here)

(24) *<u>Katie</u> danced, too*

- Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '*James danced*'}
- Additive presupposition: '*James danced*' is true

Accommodation of alternatives

- Since the intended set of alternatives for an additive particle is never explicitly indicated, it needs to be always accommodated

- In a simple case, it's easy:

(25) James danced. <u>Katie</u> danced, too.

  - Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '*James danced*'}

  - It's easy for the hearer to guess that this is the intended set of alternatives, and the speaker can expect that the hearer can succeed in guessing it, so ✓

Accommodation of alternatives

- There may be multiple options:

(26) James and Andy danced. <u>Katie</u> danced, too.

  - Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '*James and Andy danced*'}
  - Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '*James danced*', '*Andy danced*'}
  - Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '*James danced*'}
  - Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '*Andy danced*'} etc.

- Differences among these options are not pragmatically important; the resulting additive presuppositions will be satisfied. So any of them will do.

- The hearer can safely conclude that the speaker doesn't care which one, and the speaker can expect that the hearer concludes that, so ✓

Restrictions on accommodation

- When it's impossible to guess the intended set of alternatives, #

(27) Kripke's out-of-the-blue context:
<u>Katie</u> is having dinner in NY, too.

- {'*Katie is having dinner in NY*', '*James is having dinner in NY*'}
- {'*Katie is having dinner in NY*', '*Andy is having dinner in NY*'} etc.

- None of these options yields an additive presupposition that is satisfied. An additive presupposition can in principle be accommodated, but the hearer doesn't know which one to accommodate (and it's certainly not that everyone that can be named is having dinner in NY)
- The speaker shouldn't expect the hearer to be able to guess which set of alternatives is intended, so #

Interim summary

- Accommodation of alternatives is always necessary for an additive particle
- Accommodation is pragmatically constrained:
  - The hearer needs to be able to guess the intended set of alternatives
  - The speaker should be sure that the hearer can do that
- Perhaps accommodation of any kind is constrained in a similar way, including pronominal anaphora, but:
  - Focus alternatives are linguistic expressions, and factors like structural complexity could be leveraged in resolving accommodation
  - Pronominal anaphora is about finding a suitable entity as the referent

Some more details

Pronominal alternatives

- Note that the relevant alternatives need not be used themselves

(28) One boy danced. <u>Katie</u> danced, too.

(29) James or Daniele danced. <u>Katie</u> danced, too.

  - Alt_c('*<u>Katie</u> danced*') = {'*Katie danced*', '***He** danced*'}

- Since pronouns are very frequent, structurally simple, and used in many different contexts, they are good candidates for accommodation

- But you need to resolve the anaphora, so a pronoun is unlikely to be intended to be an alternative in an out-of-the-blue context

Indexical alternatives

- Indexical pronouns are also frequent and always have salient referents, so they are particularly easy to accommodate:

  ☞ 'Indexical additive presuppositions' are easy to accommodate

(30) We are having dinner in NY right now
<u>Katie</u> is having dinner in NY, too

- {'*Katie is having dinner in NY*', '*We are having dinner in NY*'}
- There are other options like "I", "you", but their differences are immaterial

Double accommodation

- In some cases, you have to accommodate both the intended focus alternatives and the additive presupposition computed with them

(15) A semanticist friend comes to your office and asks:

✓ *Did <u>you</u> get into SALT too?*

- Let's assume 'too' applies below the question operator
- {'*you got into SALT*', '*I got into SALT*'} needs to be accommodated
- The additive presupposition that the speaker got into SALT needs to be accommodated too

'Contextual saliency'

- Recall that cases like (13) are problematic for the anaphoric theory

(13) *Sam used to be really poor, which made him feel ostracized and lonely. But now that Sam has struck it rich, he no longer feels alone.*
*Now <u>he</u> **too** can drive a Mercedes, and have dinner in fancy restaurants in New York.*
(Ruys 2015: p. 356)

- In our theory, we have to resort to a 'contextually salient' expression
  - {'*He can drive a Mercedes, ...*',
    '***Other rich people** can derive a Mercedes, ...*'}
  - We don't have a satisfying theory of 'contextual saliency' at this moment :(

'Contextual saliency'

- According to Fox & Katzir (2011), focus and implicatures use the same alternatives
- An *ad hoc* implicature can be computed from the same alternative
  - {'*He knows what it's like to be poor*', '***Other rich people*** *know what it's like to be poor*'}

(31) *Sam used to be really poor, which made him feel ostracized and lonely. But now that Sam has struck it rich, he no longer feels alone.*
Yet, ***HE knows what it's like to be poor.***
➠ Other rich people don't know what it's like to be poor

Only

- According to our theory, part of the restrictions on accommodation of additive presuppositions to accommodation of focus alternatives
- These restrictions can be observed with other focus-sensitive particles too, e.g. *only*

(32) We are having dinner in NY right now

Only Katie is having dinner in NY

(33) We are not having dinner in NY right now

? *Only Katie is having dinner in NY*

Summary

- Two processes
    A. Accommodate relevant focus alternatives
    B. Compute the additive presupposition, and accommodate it, if necessary

- Accommodation of the additive presupposition in B. is not different from accommodation of other presuppositions

- What is special about additive particles is that you need A., which is constrained in a different way from anaphora

Quantifiers

Quantificational associates

- Additive particles can associate with all sorts of expressions

(34) *John ran. He <u>swam</u>, too.,*

(35) *John invited many girls. He invited <u>some boys</u>, too.*

- Both the anaphoric theory and our theory have issues with certain quantificational cases
- Our theory can be saved by additional constraints on what counts as a focus alternative to what

Anaphoric theory

- Accommodation is restricted with quantifiers, too

(36) We are not invited.
 # John invited <u>some boys</u>, too.

- The anaphoric theory would assign the following additive presupposition:
  - ***pro*** is a quantifier ⟦some boys⟧ doesn't entail✣ & ***pro***$(\lambda x.$ *John invited* $x) = 1$
  - No suitable antecedent for ***pro*** in (36), so #

(✣ Non-identity will be generally too weak)

Anaphoric theory

(35) John invited many girls. He invited <u>some boys</u>, too.

- Additive presupposition:
  pro is a quantifier ⟦some boys⟧ doesn't entail & ***pro***$(\lambda x.$ *John invited* $x) = 1$

- ***pro*** has an antecedent quantifier in (32), namely ⟦many girls⟧

Overgeneration

(36) # John invited no girls. He invited <u>some boys</u>, too.

- Additive presupposition:
  pro is a quantifier ⟦some boys⟧ doesn't entail & ***pro***$(\lambda x.\ \textit{John invited } x) = 1$

- ***pro*** has an antecedent quantifier in (33), namely ⟦no girls⟧

☞ Need a constraint on what quantifier is an alternative to what quantifier

Monotonicity constraint

Monotonicity Constraint:
A focussed quantifier has as alternatives only quantifiers of the same monotonicty

- (cf. Horn 1989, Matsumoto 1995 for scalar implicatures)
- To be refined

Anaphoric theory + MC

(36) # John invited no girls. He invited <u>some boys</u>, too.

- Additive presupposition:
  pro is an **upward monotonic** quantifier ⟦some boys⟧ doesn't entail
  & ***pro****(λx. John invited x) = 1*

- ***pro*** has doesn't have a suitable antecedent quantifier in (33)

Problematic cases

- But the Monotonicity Constraint is not enough to account for other cases

(37) *John didn't invite every girl. But he invited <u>some boys</u>, too.*

(38) *John invited at most 10 girls. But he invited <u>some boys</u>, too.*

  - No appropriate antecedent upward monotonic quantifiers in these examples

Our theory with alternative quantifiers

- Our theory fares better
  - We don't need contextually salient alternatives for these cases
  - We can derive the necessary alternatives via Lexical Substitution and/or Simplification
- But we need the Monotonicity Constraint as well
  - Or something weaker

Alternative quantifiers

(35) John invited many girls. He invited <u>some boys</u>, too.

- {'*He invited some boys*', '*He invited some girls*'}
- {'*He invited some boys*', '*He invited many girls*'}

- Both of these yield an additive presupposition that is satisfied

Alternative quantifiers + MC

(36) # John invited no girls. He invited <u>some boys</u>, too.

- {'*He invited some boys*', '*He invited some girls*'}
- {'*He invited some boys*', '*He invited many girls*'}

- Neither of these yields an additive presupposition that is satisfied or can be accommodated
- Need the Monotonicity Constraint to exclude '*He invited no girls*'

Mismatching monotonicity

- (37)-(38) can be accounted for with:
  - {'*He invited some boys*', '*He invited some girls*'}
  - Note the existential entailment

(37) John didn't invite every girl. But he invited <u>some boys</u>, too.

(38) John invited at most 10 girls. But he invited <u>some boys</u>, too.

Non-monotonic quantifier

- Cases like (40) force us to assume that non-monotonic quantifiers can have upward monotonic quantifiers as alternatives

(40) John invited every girl. He invited <u>between 5 and 10 boys</u>, too

- {'*He invited between 5 and 10 boys*', '*He invited every girl*'}
- Or {'*He invited between 5 and 10 boys*', '*He invited some girls*'}

Remaining issues: Negative quantifiers

(41) John invited no girls. And he invited <u>no boys</u> either/#too.

(42) John invited few girls. And he invited <u>no boys</u> #either/#too.

Summary

Summary

- Two processes
    A. Accommodate relevant focus alternatives
    B. Compute the additive presupposition, and accommodate it, if necessary

- Accommodation of the additive presupposition in B. is not different from accommodation of other presuppositions

- What is special about additive particles is that you need A., which is constrained in a different way from anaphora

Implications

- Kripke (2009) claimed that at least some presuppositions are anaphoric, and not simply propositional

- Our theory invites us to reconsider this claim
- NB: our main point is not that there are no anaphoric presuppositions, but that restrictions on additive presuppositions should not be accounted for in terms of restrictions on anaphora, but about focus alternatives
- So there might still be anaphoric presuppositions; but it seems to us that there's none that are constrained in the same way as anaphora

Again

- Kripke (2009: p. 373) talks about *again*

(41) *Priscilla is eating supper, again*

(42) *<u>Katie</u> is going to Paris, again*

(43) *<u>Katie</u> is going to read my dissertation again*

- But these presuppositions can be easily accommodated

Stop

- Kripke observes that *stop* allows accommodation (cf. Heim 1992)

(44) *Jill (has) stopped smoking.*

- But still insists: some specific time is referenced, perhaps a recent time, or some salient time

- But this is arguably due to tense; with a plain predicate too, this is observed

(45) *Jill (has) passed away.*

Clefts

- Kripke analyses that clefts (and pseudo-clefts) have anaphoric presuppositions; They are indeed # out of the blue
- But clefts are focus-sensitive, so amenable to our analysis (details omitted)