AnderBois, Brasoveanu, and Henderson: Appositives



- Anaphora and presupposition satisfaction freely flows between appositive and at-issue material (with the usual left to right bias)
- "Appositives *impose* their content on the Context Set directly, while at-issue content introduces a new discourse referent and *proposes* that its content be added, subject to ratification by the addressee."

Additional sources

- Koev, Todor. Under contract. *Parenthetical Meaning*. Oxford Studies in Semantics and Pragmatics. OUP. (Full draft available upon request.) https://todorkoev.weebly.com
- Schlenker, Philippe. 2021. Supplements without Bidimentionalism. Revised manuscript.

Last time: Cheyenne evidentials as non-negotiable update

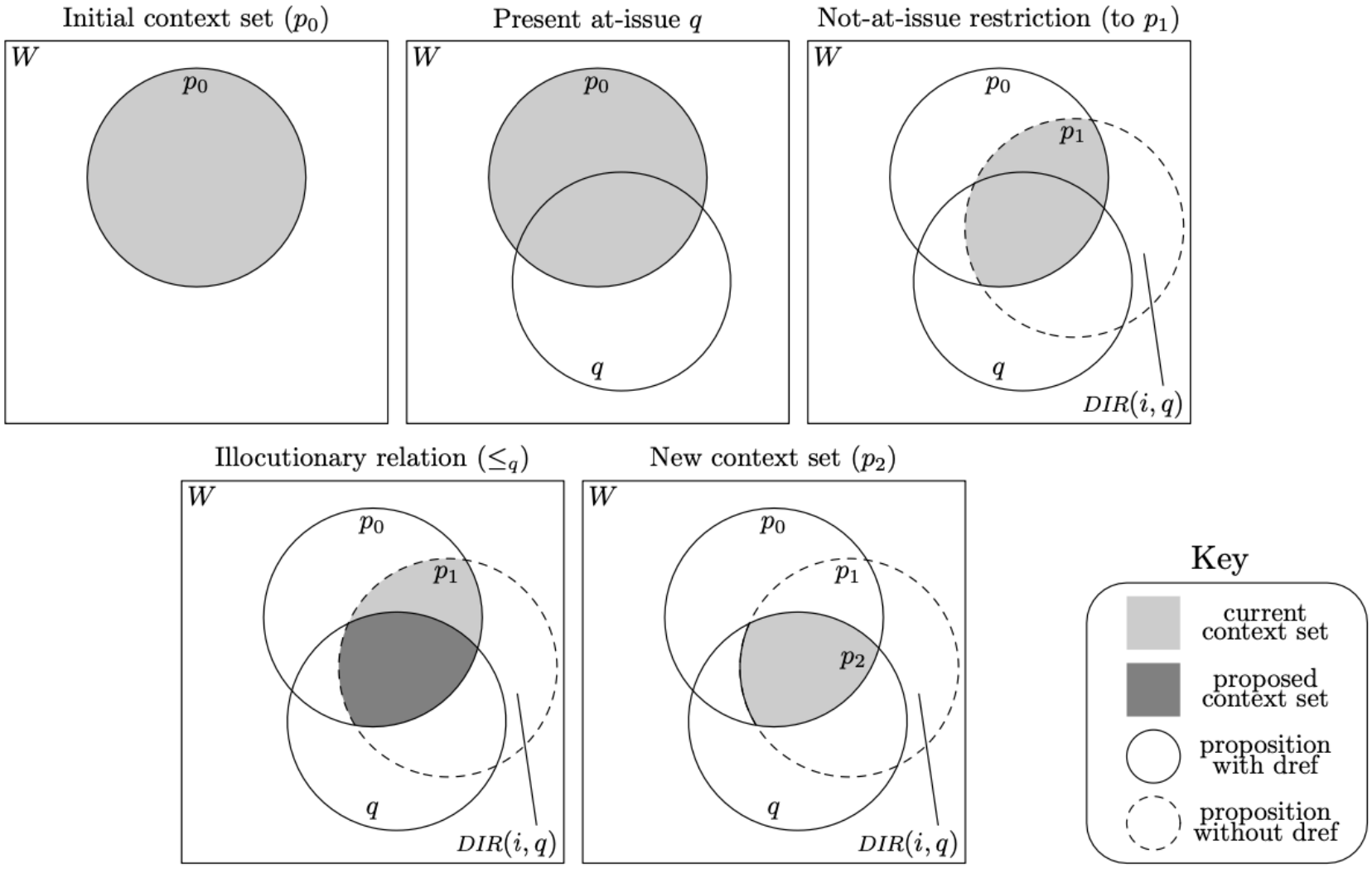

Figure 1: Sandy won, I'm sure

Appositives: not at issue; like presups, but informative

ABH concentrate on relative clause appositives:

1. John, who didn't leave, got in trouble.

Two independent propositions:

2. John didn't leave. [appositive content, backgrounded]
3. John got in trouble. [at-issue]

As expected for not-at-issue stuff, appositive content is immune to entailment-cancelling operators. [But see Schlenker data below]

4. John, who didn't leave, didn't get in trouble.
5. John, who didn't leave, might get in trouble.

Can't be directly denied:

6. You're wrong! John left.

- Left comma: starts an appositive; right comma: ends one

Core data: anaphora

```
1. A^x woman entered.  She_x sat down.

          who met a^x woman,
2. John,                        called her_x.

                                who called her_x back.
3. A^x woman called John,

          who met a^x woman,                  who met her_x too
4. John,                        called Bill,
```

Core data: presupposition

- *either*: focus-sentivie strong NPI; "B either" presupposes B' where B and B' differ in the focused position

1. Ann didn't leave. $\text{BILL}_{\text{FOCUS}}$ didn't leave either.

- So at-issue stuff can satisfy presups triggered by at-issue stuff

```
        who wouldn't talk to MARY,
2. John,                        wouldn't talk to SUSAN either.

                              who wouldn't talk to HIM, either.
3. John wouldn't talk to MARY,
```

- Appositive stuff can satisfy at-issue's presups
- At-issue stuff can satisfy appositive's presups

```
        who didn't leave,    who didn't leave either.
4. JOHN,              called BILL,
```

- This configuration not discussed in the paper
- Appositive stuff can satisfy appositive's presups

Fragment

Unlike Murray

- evaluation points are simply assignment functions
  - Murray: sequence of objects
  - worlds are tucked away inside of the values of variables
- No articulation of the evaluation point into tops (context set) and bottoms (at issue)

Like Murray

- values of the assignment function can have various types, primarily individuals and sets of worlds
- update of the context set with not at issue content happens before update with at-issue content

Key idea: two proposition-denoting variables, p^{cs} and p^{ai}

- The current context set is stored under p^{cs}
  - Appositives update the value of p^{cs} immediately
- At-issue content contributes to p^{ai}
  - When the addressee is ready to accept the proffered content, p^{cs} is updated with p^{ai}
- Discourse referents are all added directly to the evaluation point's assignment fn
  - Both at issue and appositive drefs go straight onto the assignment
  - Both at issue and appositive pronouns consult the assignment

Mechanics

Adding a new discourse referent:

- $[\![[v]]\!]^{g,h}$ iff g agrees with h except perhaps $g(v) \neq h(v)$
- Adding an individual-denoting variable creates a new point for each individual in the domain
- Adding a proposition-denoting variable creates a new point for every subset of the set of worlds

DPL-style conjunction as function composition:

- $[\![\phi \wedge \psi]\!]^{g,h}$ iff $\exists k : [\![\phi]\!]^{g,k} \wedge [\![\psi]\!]^{k,h}$

Predicates must hold at all of the worlds in their index:

- $[\![P_p(x)]\!]^{g,h}$ iff $g = h \wedge \forall w \in p : g(x) \in P_w$

Example: DRT-like notation

(38) John^{x}, who nearly killed a^{y} woman with his$_{x}$ car, visited her$_{y}$ in the hospital.

(39)
a. **New proposal**: $[p] \wedge p \subseteq p^{cs} \wedge$
b. **Issue**: $[x] \wedge x = \text{JOHN} \wedge$
c. **Appositive**: $[y] \wedge \text{WOMAN}_{p^{cs}}(y) \wedge \text{NEARLY-KILL}_{p^{cs}}(x, y) \wedge$
d. **Issue**: $\text{VISIT}_{p}(x, y) \wedge$
e. **Proposal accepted**: $[p^{cs}] \wedge p^{cs} = p$

Figure 2: key example

Example: contexts

(32) John^x, who$_x$ nearly killed a^y woman with his$_x$ car, visited her$_y$ in the hospital.

(33)

p^{cs}
$\{w_1, w_2, w_3\}$
$\{w_1, w_2\}$
$\{w_1, w_3\}$
$\{w_2, w_3\}$
$\{w_1\}$
$\{w_2\}$
$\{w_3\}$

$\xrightarrow[\textbf{1:AT-ISSUE}]{p \subseteq p^{cs} \wedge x = \text{JOHN}}$

p^{cs}	p	x
$\{w_1, w_2, w_3\}$	$\{w_1, w_2, w_3\}$	*john*
$\{w_1, w_2, w_3\}$	$\{w_1, w_2\}$	*john*
$\{w_1, w_2, w_3\}$	$\{w_1, w_3\}$	*john*
	...	
$\{w_1, w_2\}$	$\{w_1, w_2\}$	*john*
$\{w_1, w_2\}$	$\{w_1\}$	*john*
$\{w_1, w_2\}$	$\{w_2\}$	*john*
$\{w_1, w_3\}$	$\{w_1, w_3\}$	*john*
$\{w_1, w_3\}$	$\{w_1\}$	*john*
$\{w_1, w_3\}$	$\{w_3\}$	*john*
$\{w_2, w_3\}$	$\{w_2, w_3\}$	*john*
$\{w_2, w_3\}$	$\{w_2\}$	*john*
$\{w_2, w_3\}$	$\{w_3\}$	*john*
$\{w_1\}$	$\{w_1\}$	*john*
$\{w_2\}$	$\{w_2\}$	*john*
$\{w_3\}$	$\{w_3\}$	*john*

$\xrightarrow[\textbf{2:APPOS}]{\text{who}_x \text{ nearly killed a}^y \text{ woman in } p^{cs}}$

p^{cs}	p	x	y
$\{w_1, w_2\}$	$\{w_1, w_2\}$	*john*	*woman*$_1$
$\{w_1, w_2\}$	$\{w_1, w_2\}$	*john*	*woman*$_2$
$\{w_1, w_2\}$	$\{w_1\}$	*john*	*woman*$_1$
$\{w_1, w_2\}$	$\{w_1\}$	*john*	*woman*$_2$
$\{w_1, w_2\}$	$\{w_2\}$	*john*	*woman*$_1$
$\{w_1, w_2\}$	$\{w_2\}$	*john*	*woman*$_2$
$\{w_1\}$	$\{w_1\}$	*john*	*woman*$_1$
$\{w_1\}$	$\{w_1\}$	*john*	*woman*$_2$
$\{w_2\}$	$\{w_2\}$	*john*	*woman*$_1$
$\{w_2\}$	$\{w_2\}$	*john*	*woman*$_2$

$\xrightarrow[\textbf{3:AT-ISSUE}]{x \text{ visited } y \text{ in } p}$

p^{cs}	p	x	y
$\{w_1, w_2\}$	$\{w_1\}$	*john*	*woman*$_1$
$\{w_1\}$	$\{w_1\}$	*john*	*woman*$_1$

Appositives in discourse

- Simons et al.: nai content does not address the QUD
- So if appositives are NAI, they should not address the QUD

1. a. Who had prostate cancer?
   b. Who was being treated at the Dominican Hospital?

2. Tammy's husband, who had prostate cancer, was being treated at the Dominican Hospital.

- "serving as a *proposal* to update the CS intrinsically involves the same discoure resources as managing the QUD"
- an explicit system for managing the QUD is not provided
- Here, failing to address the QUD is a *consequence* of being NAI, not a definition or a cause
- Unlike Simons et al., NAI is at least partially grammatically determined

Are appositives always QUD-inert? (Anna Alsop)

Appositives can introduce a polar question:

1. A: Larry, who is your friend(, right)?. . .
2. B: Yes.
3. A: . . . ran into Sue at the store.

Appositives can introduce an (in-situ) wh-question:

4. A: Larry, who you met where(, again)?. . .
5. B: At college.
6. A: . . . ran into Sue at the store.

- Perhaps appositives are independent discourses
- Embedded in a larger discourse like a cyst
- But somehow still interacting wrt anaphora and presupposition
- There are many kinds and uses of appositives. . .

Appositives project more strongly than presuppositions

- Presuppositions can be satisfied locally:

1. If Ann has a child, Ann's child is young.

- Appositives insist on projecting in similar circumstances:

2. # If Obama is a socialist, then the President, who is a socialist, wants to raise taxes. [Koev]

Projection

- How do appositives escape entailment-cancelling operators?
- entailment-cancelling operators (negation, attitudes, modals, etc.) introduce new propositional drefs
- appositive context targets p^{cs} directly and uniformly
- "Thus, the main idea of our account is to treat the appositive vs. at-issue distinction as a special kind of modal subordination: the two types of content are similar to the actual vs. hypothetical possibilities/propositions entertained in modal subordination discourses."
- standard dynamic negation won't get the job done, since appositive flies will get trapped in the negated at-issue amber

Negation

(62) John hasn't visited the moon, which is made of cheese, in a space shuttle.

(63) $[\![\text{NOT}_p^{p'}(\varphi)]\!]^{\langle g,h\rangle} = \mathbb{T}$ iff

a. $[\![\mathbf{max}^{p'}(\varphi)]\!]^{\langle g,h\rangle} = \mathbb{T}$ and

b. $h(p) \cap h(p') = \emptyset$

(64) $[\![\mathbf{max}^{p}(\varphi)]\!]^{\langle g,h\rangle} = \mathbb{T}$ iff

a. $[\![[p] \wedge \varphi]\!]^{\langle g,h\rangle} = \mathbb{T}$ and

b. there is no h' s.t. $[\![[p] \wedge \varphi]\!]^{\langle g,h'\rangle} = \mathbb{T}$ and $h(p) \subsetneq h'(p)$

Figure 4: ABH negation

- compute the maximal proposition p' that verifies ϕ
- require that p' and the proposition negation is indexed by (p) are disjoint

Example of negation

(65) a. John did not$^{p'}_{p}$ [see$_{p'}$ Bill [who was hiding$_{p^{cs}}$]$_{appos}$]$_{neg}$

b. John did not$^{p'}_{p}$ [see$_{p'}$ Bill]$_{neg}$ [who was hiding$_{p^{cs}}$]$_{appos}$

The translation in (66), which is depicted in (67), shows how we derive the correct interpretation even when negation scopes over the appositive. For this example, assume that John saw Bill only in $\mathbf{w}_3$ and that Bill was hiding only in $\mathbf{w}_1$ and $\mathbf{w}_3$.

(66) $[p] \wedge p \subseteq p^{cs} \wedge [x] \wedge x = \text{JOHN} \wedge [y] \wedge y = \text{BILL} \wedge$
$\text{NOT}^{p'}_{p}(\text{SEE}_{p'}(x, y) \wedge \text{HIDE}_{p^{cs}}(y)) \wedge$
$[p^{cs}] \wedge p^{cs} = p$

Figure 5: negation example

- (66) has $\text{NOT}^{p'}_{p}$, where p is the at-issue proposition
- could a not-at-issue negation index the context set p^{cs}?
- "the apositive always directly updates p^{cs}. Thus, it can have no effect on the proposition that the speaker asserts to be false."

Returning to core data about anaphora and presupposition

Anaphora works:

- Both at issue and appositive content dump drefs onto the same unified assignment
- So antecedents from either source are equally available for anaphoric reference

But what about presuppositions?

- "presuppositions are constraints or preconditions on the current information state/CS"
- "They are required to be satisfied throughout the entire input information state/CS."
- "That is, any assignment g in the input information state has to satisfy the presupposition."
- ABH endorse the anaphoric view of presup satisfaction (e.g., van der Sandt)
- Best case scenario: presupposition satisfaction reduces to anaphora

A problem about presuppositions

[re-examine slide 5]

- What clearly works: appositive material satisfying downstream presuppositions, since it's immediately incorporated into the operative context set (namely, p^{cs})
- What is problematic: at-issue material satisfying presuppositions. ABH:

1. John kissed Mary, who kissed HIM TOO.

- By hypothesis, at-issue content not yet incorporated into the context set before appositive material has been processed
- In (1), there will be points at which John did not kiss Mary

ABH: [at-issue material satisfying presuppositions] "occurs with presuppositions that are hard to accommodate (*too*), so we predict that the appositive forces the acceptance of the at-issue proposal prior to the appositive update. Thus, proposals to update the common ground do not come only in sentence/clause-sized chunks."

Nominal appositives

84. a. If a professor, a famous one, publishes a book, he will make a lot of money.
    b. If a professor publishes a book and he is famous, he will make a lot of money.

- "[these appositive phrases] are appositive in prosody only. . . [they are] *corrections* that target the proposal."
- "While difficulties in interpreting them in the scope of such operators can conceivably be met by forcing the appositives to adjoin high in the syntax, such an account is less parsimonious because it treats appositives as being exceptional in both their syntax and their semantics, rather than in the semantics alone."

Can appositives force indefinites to take wide scope?

(71) John didn't read a book.
(72) John didn't read a book, which Mary had recommended to him.

ABH claim that

- (71) is ambiguous, depending on whether the indefinite takes scope inside or outside negation.
- (72) is not ambiguous: "there must be a specific book that Mary recommended which John didn't read"
- ABH's formal account involves partial individual concepts

A challenge from Schlenker 2020-2021

- Schlenker, Philippe. 2020-2021. Supplements without Bidimensionalism. Manuscript. "New and restructured version."

8. a. If tomorrow I called the Chair, who in turn called the Dean, then we would be in big trouble.
   b. If tomorrow I called the Chair and he in turn called the Dean, then we would be in big trouble.

9. a. If tomorrow we published information about Smith, who got killed as a result, we could kiss our jobs goodbye.
   b. If tomorrow we published information about Smith and he got killed as a result, we could kiss our jobs goodbye.

PS point 1:

- Assume future-oriented past tense (the "modal past") is only available for material that scopes inside conditional antecedents
- Since the appositive has a future-oriented interp, it must be scoping inside the antecedent
- That is, the chair calling the Dean is hypothetical
- Not what AHB expect if appositives always update p^{cs}

PS point 2:

- Unlike for the conjuntions in the (b) exx., the (a) exx. allow for a conditional inference:
  1. If I call the chair, the chair will call the Dean
  2. If we publish info about Smith, Smith will get killed
- This shows that the appositive content is projecting outside of the conditional

PS: "Some supplements give rise to patterns of projection reminiscent of presupposition projection. This suggests that there is a non-trivial interaction between the semantic contribution of some appositives and other operators."

Variant data from Omar Agha

8. a. If tomorrow I called **an administrator**, who in turn called the dean, then we would be in big trouble.
   b. If tomorrow I called **an administrator**, who has a duty to inform the Dean, then we would be in big trouble.

9. a. If tomorrow we published information about **a clandestine agent**, who got killed as a result, we could kiss our jobs goodbye.
   b. If tomorrow we published information about **a clandestine agent**, who requires absolute anonymity, we could kiss our jobs goodbye.

Agha point 1:

- The (a) exx. allow a future interpretation
- When futurate, we know the appositive is scoping inside the antecedent
- When futurate, the indefinite scopes inside the antecedent (indefinite interp)

Agha point 2:

- The (b) exx. do not have futurate interps.
- So the appositive is free to scope out
- And the indefinite likewise can scope out of the antecedent (a specific interpretation is possible)
- Conclusions:
  - The scope of the appositive does influence (determine?) the scope of an associated indefinite (partial support for AHB)
  - But the scope of the appositive is not always matrix level, contra AHB

Recapitulation

- Murray, ABH: some updates are automatic, some are negotiated
- automatic updates are separated from negotiated ones formally
  - Murray: top and bottom sequences
  - ABH: targeting different propositional drefs, p^{cs} vs. p^{ai}
- No explicit formal mechanism for accepting, rejecting, etc. ai content
- Anaphora appears to track a unified update mechanism
- Presupposition satisfaction appears to track a unified update mechanism
- ABH does not cover the full range of appositive behavior
- Murray and Koev explicitly mix illocutionary force into the semantics
- Next week, Starr will advocate doing the same for a dynamic treatment of imperatives

Taking stock

- What are the strongest cases motivating dynamic composition?
  - anaphora, especially indefinites serving as antecedents
  - presupposition projection
- Some kinds of dynamic updates behave differently
  - evidentials
  - supplements
- Pushback:
  - We should keep classical inference (Schlenker, Mandelkern, Elliott)
  - We should hesitate to articulate composition into multiple dimensions
  - Dynamic semantic analyses overrestrict pragmatic freedom (Lewis, Schlenker)
- Something about language is dynamics (MM)
  - Where do we draw that line?
    - truth conditions/pragmatics?
    - content/update?
    - at-issue/not-at-issue?