

# Focus on what's not at issue:

gestures, presuppositions, supplements under Contrastive Focus

Masha Esipova

New York University

`masha.esipova@nyu.edu`

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- 1 Introduction
- 2 When are at-issue readings forced under CF?
- 3 Form of CF-forced at-issue readings
- 4 Conclusion: a more fine-grained typology of not-at-issue content?

# Original debate: the semantic status of gestures

- What is the semantic status of informative, non-emblematic gestural adjuncts: *co-speech gestures*, as in (1a), and *post-speech gestures*, as in (1b)?

(1) There was a party at my place yesterday and...



- John brought [his dog]<sup>LARGE</sup> —
- John brought his dog — LARGE.

For (a,b):

- John has a unique dog.
- John's unique dog is large.

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- Inference (i) suggests that the gestures in (1) are used non-restrictively. What is the status of inference (ii)?

- Ebert (& Ebert) claim that co-speech gestures are Pottsian (2005) supplements, and post-speech gestures are at-issue (2014)/parenthetical (2017); Schlenker (to appear) argues co-speech gestures trigger a special kind of presuppositions, and post-speech gestures are supplements.

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- Both currently agree that gestures, co- or post-speech, are — at least by default — not-at-issue, which is suggested by the projection of the gestural inferences in (2):

(2) I'm having a party at my place tomorrow.

- If John brings [his dog]<sup>LARGE</sup>, it's gonna be a mess.
  - If John brings [his dog] — LARGE, it's gonna be a mess.
- For (a,b):  $\rightarrow$  John's unique dog is large.

- In this respect gestures pattern with other traditionally identified types of not-at-issue content, such as presuppositions and supplements, in particular, non-restrictive relative clauses and nominal appositives.

(3) I'm having a party at my place tomorrow.

- a. If John brings his dog, it's gonna be a mess.  
→ John has a (unique) dog.
- b. If John brings his dog, who's (by the way) large, it's gonna be a mess.  
→ John's unique dog is large.
- c. If John brings his dog, a large beast, it's gonna be a mess.  
→ John's unique dog is large.

# Observation: at-issue interpretations of co-speech gestures under CF

- Co-speech gestures can sometimes be forced to have at-issue (non-projective) interpretations under Contrastive Focus (CF)<sup>1</sup>:

(4) I'm having a party at my place tomorrow.

If John brings [his **dog**]<sup>SMALL</sup> , it's gonna be OK, but if he

brings [his **dog**]<sup>LARGE</sup> , it's gonna be a mess.

↗ John has a unique dog.

↗ John's unique dog is small/large.

≈ If John brings his **small** dog, it's gonna be OK, but if he brings his **large** dog, it's gonna be a mess.

<sup>1</sup>Observation originally due to R. Pasternak (p.c.), but his examples can be analyzed as instances of corrective Focus.



## Goals of this project

- Systematically look at different types of not-at-issue content and determine (i) when at-issue interpretations are forced under CF, (ii) what exactly their form is — careful introspective judgements.

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- Assess the predictions of the supplemental vs. presuppositional approaches to co-speech gestures, as well as a potential alternative to both, re the data obtained.

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- The exact form of at-issue interpretations of co-speech gestures under CF suggests that they can't be uniformly structurally similar to non-restrictive relative clauses or appositives (contra one understanding of Ebert); treating them as presuppositions that allow for local accommodation (Schlenker) might work, but there are a few loose ends to tie up. An alternative — hybrid — analysis treating gestures as structurally ambiguous between NP-level modifiers that can trigger presuppositions and DP-level supplements looks promising.

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- The data at hand raise the question whether we need a more fine-grained typology of not-at-issue content that relies on independent structural parameters rather than on a stipulated binary presupposition vs. supplement distinction — cf. typology of iconic enrichments in Schlenker accepted.

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## Gestures and supplements

- Generalization 1: CF forces at-issue readings of not-at-issue content only when (i) that not-at-issue content co-occurs with some at-issue content, and (ii) the said at-issue content is non-contrastive across the contrasted alternatives.

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  - Generalization 1 for structurally independent not-at-issue content (co-speech gestures vs. post-speech gestures and supplements):
- (5) Context: We live in a world, in which whenever a small animal and a large animal are in one room, they fight.
- a. If John brings [his **dog**]<sup>SMALL</sup>, and Bill brings [his **dog**]<sup>LARGE</sup>, they'll fight.  
 $\approx$  If John brings his **small** dog, and Bill brings his **large** dog...
  - b. If **John** brings his dog — **SMALL**, and **Bill** brings his dog — **LARGE**, they'll fight.
  - c. If **John** brings his dog, who's (btw) **small**, and **Bill** brings his dog, who's (btw) **large**, they'll fight.
  - d. If **John** brings his dog, a **small** animal, and **Bill** brings his dog, a **large** animal, they'll fight.



- Putting the CF elsewhere brings back the not-at-issue interpretation for co-speech gestures:

(6) If John brings [**his** dog]<sup>SMALL</sup>, and Bill brings [**his** dog]<sup>LARGE</sup>, they'll fight.  
→ John's unique dog is small, Bill's unique dog is large.

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  - (6) If John brings [**his** dog]<sup>SMALL</sup>, and Bill brings [**his** dog]<sup>LARGE</sup>, they'll fight.  
→ John's unique dog is small, Bill's unique dog is large.
  - If the verbal expressions the gestures co-occur with are contrastive, no at-issue interpretation is forced either:
    - (7) If John brings [his **cat**]<sup>SMALL</sup>, and Bill brings [his **dog**]<sup>LARGE</sup>, they'll fight.  
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- A real life example (slightly adjusted) to illustrate the same point:

(8) If you're going for [a coffee]<sup>SMALL</sup> ... You know, if you're going for

[a **real** coffee]<sup>SMALL</sup> , not [a **Starbucks** coffee]<sup>LARGE</sup> ...

→ Real coffees are small, Starbucks coffees are large.

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- Furthermore, we can't have counterpart examples of (5a) for lexical presuppositions in which the at-issue content is non-contrastive both semantically and phonologically.
- When the contrast is phonological only, both readings seem available (with the one involving local accommodation possibly degraded):

(9) If Alex is a **bachelor**, and Kim is a **spinster**, I'll win.

- OK for all: → Alex is male, Kim is female; the QUD is about their marital status.
- OK for some: → Alex and Kim are unmarried; the QUD is about their gender.

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- Alternative: only semantic contrast matters for CF (cf. corrective Focus), but in triggers like *bachelor* and *spinster* the not-at-issue content is both asserted and presupposed (I. Heim, p.c.). E.g., assuming Abusch's (2009) mechanism of triggering from alternatives, *bachelor* can mean smth like 'male and unmarried', with the presupposed alternative set 'male and unmarried', 'male and married'.

## Showing how it works

- Contrastive gestures co-occurring with non-contrastive verbal expressions under CF (*[his **dog**]<sup>SMALL</sup>* vs. *[his **dog**]<sup>LARGE</sup>*):
  - No phonological contrast b/n the contrasted alternatives (*dog* vs. *dog*).
  - The at-issue content co-occurring with the CF markers is semantically non-contrastive b/n the contrasted alternatives ('dog' vs. 'dog').
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  - The gestures thus have to be made at-issue to license CF, resulting in smth like 'his small dog' vs. 'his large dog'.
- Contrastive gestures co-occurring with non-contrastive verbal expressions, CF elsewhere ( $[his_i \textbf{dog}]^{SMALL}$  vs.  $[his_j \textbf{dog}]^{LARGE}$ ):
  - Semantic contrast b/n 'his<sub>i</sub>' and 'his<sub>j</sub>', so CF is OK.
  - *Dog* and *dog* don't co-occur with the CF markers, so the gestural inferences can project (but they don't have to).

- Contrastive gestures co-occurring with contrastive verbal expressions (*[his cat]*<sup>SMALL</sup> vs. *[his dog]*<sup>LARGE</sup>):
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- Presupposition triggers with non-contrastive at-issue content and contrastive not-at-issue content (*bachelor* vs. *spinster*):
  - The phonological contrast b/n *bachelor* and *spinster* licenses CF, so it doesn't matter that the at-issue content of the contrasted alternatives is non-contrastive, the presuppositions won't be forced to be accommodated (but they still can be).

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- Contrastive gestures/supplements following non-contrastive DPs (*his dog* — *SMALL* vs. *his dog* — *LARGE*; *his dog, who's small* vs. *his dog, who's large*):
  - The phonological and semantic contrast b/n the gestures/supplements license CF; the non-contrastive DPs don't co-occur with CF markers, so no further licensing needs arise.



## Theoretical implications

- Generalization 1 doesn't rely on the stipulated presupposition vs. supplement distinction. Instead, the behavior of different types of not-at-issue content under CF is determined by the following independent structural parameters (the relevance of the first two for other properties of iconic enrichments/not-at-issue content is discussed in Schlenker to appear; accepted):

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  - structural independence: whether the not-at-issue content is structurally independent (gestures, supplements) or sublexical (presuppositions);
  - modality: whether the not-at-issue content exists in a secondary modality wrt the primary phonological modality of the string (co-speech gestures) or not (post-speech gestures, supplements, presuppositions).

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- Illustrating Generalization 2 for co-speech gestures ((4) repeated):

- (10) If John brings [his **dog**]<sup>SMALL</sup>, it's gonna be OK, but if he brings [his **dog**]<sup>LARGE</sup>, it's gonna be a mess.
- ≈ If John brings his **small** dog, it's gonna be OK, but if he brings his **large** dog, it's gonna be a mess.
  - ≠ If John brings his dog and it's **small**, it's gonna be OK, but if he brings his dog and it's **large**, it's gonna be a mess.

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- ≈ If John brings his **small** dog, it's gonna be OK, but if he brings his **large** dog, it's gonna be a mess.
  - ≠ If John brings his dog and it's **small**, it's gonna be OK, but if he brings his dog and it's **large**, it's gonna be a mess.
- (10a) corresponds to (11a) (restrictive relative clauses); and (10b) — to (11b) with the non-restrictive relative clauses accommodated:
- (11) a. If John brings his dog that's **small**, it's gonna be OK, but if he brings his dog that's **large**, it's gonna be a mess.
- b. #If John brings his dog, who's **small**, it's gonna be OK, but if he brings his dog, who's **large**, it's gonna be a mess.



## Theoretical implications: structure of co-speech gestures

- If co-nominal gestures were uniformly structurally similar to non-restrictive relative clauses and nominal appositives (DP-level attachment + anaphoric element), we'd expect (10) to be bad or the reading (10b) to be available.

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- Either way, we have to assume some constraint against accommodation of non-restrictive not-at-issue content<sup>2</sup>, but this constraint can rely on structural properties.

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<sup>2</sup>Once again, what matters is if that content projects; the content of utterance-final non-restrictive relative clauses can sometimes be challenged in the discourse (Koev 2012; Syrett & Koev 2014).

## Theoretical implications: predictions of the cosuppositional analysis

- Some details of (one version of) the cosuppositional analysis of co-speech gestures (Schlenker to appear):
  - A gesture  $G$  co-occurring with a verbal expression  $P$  triggers an assertion-dependent conditional presupposition (*cosupposition*)  $P \Rightarrow G$ , where  $\Rightarrow$  is generalized entailment.
  - That cosupposition needs to be entailed by the local context (Schlenker 2009) of the word-gesture cluster, but can also be locally accommodated, in which case it's conjoined to the verbal expression  $P$ .

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- It's currently unclear how things would work for DP-level attachment.
- For NP level attachment with possessive definites:

(12) If John brings  $[\text{his } c' \text{ dog}]^{\text{LARGE}} \dots$

- Projection:  $c' \models \text{dog}'(y) \Rightarrow \text{large}'(y)$   
 — good or not, depends on how the local contexts are computed; also, *dog* can be a relational noun here ( $\text{dog}'(y, i)$ , where  $i$  resolves to John)
- LA:  
 $\dots \iota x. \text{dog}'(x) \wedge (\text{dog}'(x) \Rightarrow \text{large}'(x)) \dots = \dots \iota x. \text{dog}'(x) \wedge \text{large}'(x) \dots$

- Potential problem: the following contrast holds for indefinites, too:

(13) a. If John orders [a **beer**]<sup>SMALL</sup> , and Bill orders [a


**beer**]<sup>LARGE</sup> , I'll win.


↗ If John/Bill orders a beer, it'll be small/large.

b. If **John** orders [a beer]<sup>SMALL</sup>, and **Bill** orders [a beer]<sup>LARGE</sup>, I'll win.

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→ If John orders a beer, it'll be small; if Bill orders a beer, it'll be large.

- Yet, as things stand, the analysis predicts a contradictory requirement if both cosuppositions project, regardless of CF:

(14) If **John** orders [a <sub>c'</sub> beer]<sup>SMALL</sup>, and **Bill** orders [a <sub>c''</sub> beer]<sup>LARGE</sup>...  
 Projection:  $c' \models \text{beer}'(y) \Rightarrow \text{small}'(y)$ ;  $c'' \models \text{beer}'(y) \Rightarrow \text{large}'(y)$



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- Potential solution: variable-sensitive domain restrictions (P. Schlenker, p.c.) on the verbal predicates (e.g., *beer relevant to i*).

## Alternative: mixed behavior analysis of co-speech gestures

- Co-speech gestures can adjoin at the NP level, in which case they are essentially modifiers and contain no anaphoric element:
  - They preferably have a not-at-issue interpretation, the mechanics of which can be similar to Schlenker's cosuppositions (the same mechanism might be at play for non-restrictive adjectives discussed in Leffel 2014). These interpretations will be quite general.
  - If the not-at-issue interpretation is impossible/unlikely (e.g., due to the requirements of CF), one can default to the at-issue interpretation (ordinary restrictive modifier).

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  - If the not-at-issue interpretation is impossible/unlikely (e.g., due to the requirements of CF), one can default to the at-issue interpretation (ordinary restrictive modifier).
- Co-speech gestures can also adjoin at the DP level, in which case they contain an anaphoric element and have structure and interpretation very close to non-restrictive relative clauses/nominal appositives:
  - The not-at-issue interpretations will be more narrow (linked to specific discourse antecedents) due to the presence of the anaphoric element — no need to assume a different triggering/projection mechanism.
  - At-issue interpretations won't be available for DP-level gestures (still a puzzle — but a puzzle for everyone).

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- My tentative claim is that post-speech gestures can't adjoin at the NP level for prosodic reasons (you can't have them in the same intonational phrase as the NP they'd modify; see Esipova 2017 for more details), only at the DP level, so they'll always be supplement-like structurally.

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- Try uttering (15) (the only interpretation to make sense would be the restrictive one):

(15) If John brings his dog — **SMALL**, it's gonna be OK, but if he brings his dog — **LARGE**, it's gonna be a mess.

- 1 Introduction
- 2 When are at-issue readings forced under CF?
- 3 Form of CF-forced at-issue readings
- 4 Conclusion: a more fine-grained typology of not-at-issue content?

## Conclusion: a more fine-grained typology of not-at-issue content?

- Different types of not-at-issue content behave differently under CF, in ways that go beyond the presupposition vs. supplement binary.

Typology of adnominal not-at-issue content re behavior under CF					
alignment attachment	NP	gestures		NRCs & appositives only post- only DP	lexical presuppositions only co- n/a?
		co- DP	post- only DP		
2ndary modality	+	+	+	—	—
struct. independ.	+	+	+	+	—
own time slot	—	—	+	+	—
anaph. element	—	+	+	+	—
possibility of local acc.	yes	no	no	no	yes
adjoining to non-contrastive at-issue content under CF	local acc. forced	*	projection or *	projection or *	phonological licensing of CF



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- How much mileage can we get from these parameters? Can we dispose of the presupposition vs. supplement distinction completely, replacing it with a more uniform yet more fine-grained typology of not-at-issue content?

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- I have some preliminary experimental evidence on acceptability of CF-forced at-issue interpretations of co-speech gestures suggesting that the latter aren't uniformly weak triggers across individual speakers.



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(16) John might order [a **beer**]<sup>SMALL</sup> ...

a. ...or [a **beer**]<sup>LARGE</sup>.

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- Two additional factors had to do with if the gesture encoded size or shape, and if the gestures were produced emphatically. I won't discuss them.
- Participants were asked to rate the naturalness of the continuations on a pseudo-continuous slider scale (0–100 in reality) from 'Totally unnatural' to 'Totally natural'.

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## Results:

- Gestural Contrast examples ( $M = 39.10$ ) were overall less acceptable than Verbal Contrast examples ( $M = 53.60$ ):  $F(1, 3326) = 171.6$ ,  $p < 2e-16$ , adjusted  $R^2 = 0.049$ . See Fig. 1.

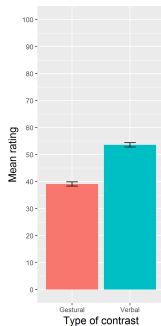


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- That said, there was a great deal of individual variation — see Fig. 2.

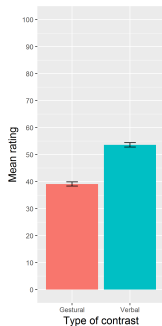


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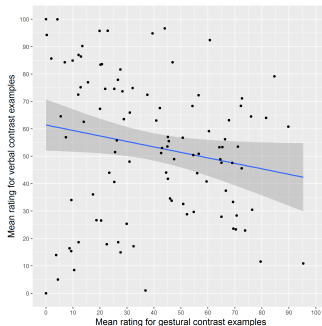


Fig. 2: Individual variation in acceptability of Gestural Contrast (X axis) vs. Verbal Contrast (Y axis) examples.

- Discussion:

- The huge amount of individual variation for the Contrast factor does not allow us to conclude that co-speech gestures are uniformly weak or strong projection triggers. Whatever the nature of the bias against at-issue interpretations of co-speech gestures is, it should allow for gradience and variability across individuals.

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- What about other types of not-at-issue content? Might it be that there is a similar amount of variation, say, for presupposition triggers wrt cost of local accommodation, so that we need to relativize the notion of trigger strength not only across triggers but across individuals?
- How much of the observed variation is due to bona fide grammar differences across individuals, and how much of it can be attributed to behavioral differences in how individual participants approach the acceptability judgement task? Is there a link between the two?