**Alternatives matter: contrastive focus and presupposition projection
in standard triggers and co-speech gestures**

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Non-projection under Contrastive Focus (CF): It has been noted in the literature that standard presuppositions, which routinely project from downward-entailing environments, fail to do so when the trigger is contrastively focused (see, e.g., Simons et al. 2016 for factive verbs):

(1) a. John doesn't know that Mary is pregnant.
　　→ Mary is pregnant.
　b. John doesn't [**know**]$_F$ that Mary is pregnant, he only [**thinks**]$_F$ that she is.[1]
　　↛ Mary is pregnant.

　　　Schlenker (2015; 2016) argues that co-speech gestures give rise to assertion-dependent conditional presuppositions (*cosuppositions*) of the form *if p, g*, where *p* is the verbal content the gesture co-occurs with and *g* is the content of the gesture (2a). Such cosuppositions also don't project under CF, in particular when the contrasted gesture-word clusters have identical verbal content and differ in their gestural content only (observation due to Rob Pasternak (p.c.)); in that case the gestures seem to make an assertive contribution (2b).

(2) a. None of these ten soldiers killed^{SHOOT}_ himself.
　　→ For each of these ten soldiers, if he was to kill himself, he would shoot himself.

　b. None of these ten soldiers [**killed**]$^{SHOOT}_F$ himself, each of them [**killed**]^{STAB}_ $_F$ himself.
　　↛ For each of these ten soldiers, if he was to kill himself, he would shoot himself.

Proposal: I argue that CF itself is not responsible for non-projection either in the spoken or in the mixed modality, but rather whether or not a presupposition projects under CF on the trigger depends on the nature of the relevant alternatives. To account for the data, I propose that when we encounter CF on a presupposition trigger, we check all the relevant local alternatives (i.e. propositions stripped of negation, question and modal operators, etc.) against the following principle:

(3) *Alternative Assertability Principle (AAP)*
　　All relevant Focus alternatives should be assertible with respect to the same common ground.

　　　If a presupposition of one of the alternatives hinders assertability of at least one other alternative, it doesn't project and should be treated as part of the assertion instead. The process responsible for making presuppositional content assertive can be local accommodation as a last resort operation (e.g., as implemented in Heim 1983 or Schlenker 2009).

More data: Let us take a closer look at the empirical motivation of the proposal. I primarily focus on conditional examples in this section (with one exception), because, unlike examples with negation, they would be harder to analyze by appealing to a metalinguistic interpretation. As illustrated in (1b), CF on *know*, whose most salient contrastive alternative (overt in (1b)) is *think* or *believe*, hinders presupposition

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[1] A note on notation:
- A word written in bold (**word**) indicates prosodic and/or gestural contrastive focus marking ((L+)H* pitch accent and lengthening on the stressed syllable, hyper-articulation, raised eyebrows, head nod, acceleration and/or increased amplitude of the gesture, etc.).
- A subscript $_F$ on a bracketed expression (verbal or mixed) indicates that it is semantically in focus.
- I indicate co-occurrence of a verbal expression with a gesture as follows: [verbal expression]^{GESTURE}.
- I illustrate new gestures with pictures after an underscore, e.g., [verbal expression]^{GESTURE}_picture.

projection. Similar effect obtains for *stop*, when its salient alternative is *start*, which has a reverse presupposition, but does not obtain, when its alternative is *take a break from*, which has the same presupposition as *stop*, or *hate*, which triggers no presupposition:

(4) a. If John [**stopped**]$_F$ smoking, I'll give you \$10, but if he [**started**]$_F$ smoking, I won't.
      ↛ John used to smoke.

    b. If John [**stopped**]$_F$ smoking, I'll give you \$10, but if he's just [taking a **break**]$_F$ from smoking, I won't.
      → John used to smoke.

    c. Although John didn't [**stop**]$_F$ smoking, he began to [**hate**]$_F$ smoking.
      → John used to smoke.

In co-speech gesture examples non-projection obtains (at least) when the verbal content across the alternatives is the same and the gestural content is contrastive (5a), but does not obtain when the contrast is due to the verbal content (5b):

(5) a. If you bring me a [**beer**]^{SMALL}_ $_F$, I'll finish it, but if you bring me a

     [**beer**]^{LARGE}_ $_F$, I'll have to share it with someone.
     ↛ If you bring me a beer, it will be a small/large one.

    b. If you bring me a [**beer**]^{LARGE}$_F$, I'll finish it, but if you bring me a [**cocktail**]^{SMALL}$_F$, I'll have to share it with someone.
     → If you bring me a beer, it would be large; if you bring me a cocktail, it would be small.

Applying AAP: AAP applies straight-forwardly to cases like (4a), where alternatives have contradictory presuppositions, because the same common ground cannot entail both *p* and *not p*. Examples with *know* vs. *think* are a bit trickier. While *think that p* often gives rise to an anti-factive inference across the board, typically attributed to some version of *Maximize Presupposition* (e.g., Sauerland 2008), I argue that in cases like (1b) the inference is much stronger and something else is at play. Namely, CF is interpreted exhaustively with respect to the salient alternatives, and, thus, the alternative with *think* is strengthened by negating the alternative with *know*. Assuming the two have the same assertive content and differ only in their presuppositional content, asserting *think that p* while negating *know that p* requires negating the presuppositional content of the latter: *p' and not pp'*, where *p* is the presuppositional content and *p'* is the assertive one, is a contradiction (since it amounts to *p' and p and not p'*) while *p' and not (p and p')* is not. The presupposition of *know* thus has to be treated as part of the assertion.

    A similar logic can be applied to gestural examples like (1b) and (5a), in which the assertive (verbal) content of the alternatives is identical, and it is their presuppositional (gestural) content that is contrastive: *pp' and not qp'* (≈ *p and q and p' and not p'*) is a contradiction while *p and p' and not (q and p')* isn't. Such gestural examples can also be compared to examples with contradictory presuppositions, like (4a), since, while the inferences triggered by the contrastive gestures in the examples above are not of the form *p* and *not p*, they are mutually exclusive — in principle (due to world knowledge), or interpreted as such within the given context. It would be good, thus, to look at examples with contrastive gestures triggering non-mutually-exclusive inferences (such as (4c) in the spoken modality). Such examples, however, are hard to construct, and I leave exploration of them for future research.

Selected references: Heim. 1983. On the projection problem for presuppositions. Sauerland. 2008. Implicated presuppositions. Schlenker. 2009. Local contexts. Schlenker. 2015. Gestural presuppositions. Schlenker. 2016. Gesture projection and cosuppositions. Simons, Beaver, Roberts, and Tonhauser. 2016. The best question: explaining the projection behavior of factives.