Gestural Cosuppositions within the Transparency Theory*

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Abstract: It has been argued that the sentence *None of these 10 guys UP_helped his son* (where *UP* is a lifting gesture co-occurring with the verb) triggers a presupposition that *for each of these 10 guys, if he had helped his son, lifting would have been involved* (Schlenker 2015, to appear). We argue that the conditional nature of this presupposition can be derived within an extension of the Transparency Theory (Schlenker 2008), one in which the target sentence competes with an 'articulated' competitor of the form: *None of these 10 guys helped his son like UP_this* (or some other post-verbal modifier).

Schlenker_2015,to_appear argues that in (1)a the VP triggers an assertion-relative presupposition ('cosupposition') of the form: *if x helped, x lifted;* no such inference is triggered by the at-issue modifier control in (1)b. (*Notation:* the gesture <u>co-occurs</u> with the expression that immediately follows the picture). As other presuppositions (Chemla_2009), it arguably projects universally under *none*, as established experimentally by Tieu_et_al._2017.

(1) a. None of these 10 guys _helped his son.
   => for each of these 10 guys, **if he had helped his son**, lifting would have been involved

   b. None of these 10 guys helped his son like _this / by lifting him.

But why is the presupposition conditionalized on the content of the VP? While Schlenker,to_appear essentially stipulates this,   we argue that it can be made to follow from an extension of the Transparency theory (Schlenker_2008).
      Schlenker_2008 argues that the presupposition *d* of a (predicative/propositional) trigger <u>dd</u>' is a normal entailment that 'wants' to be articulated as a separate conjunct:

(2) **Be Articulate**
   In any syntactic environment, express …<u>dd'</u>… as: …(d and <u>dd'</u>)… (unless independent pragmatic principles rule out the full conjunction).

If possible, then, one should say … *it's raining and John knows it*… rather than …*John knows that it's raining*…. *Be Articulate* is controlled by a Gricean principle of manner, *Be Brief*, which prohibits unnecessary prolixity, *and takes precedence over Be Articulate* – thus ruling out *If it is raining, it is raining and John knows it*:

(3) **Be Brief - Incremental Version**
   Given a context set C, a predicative/propositional occurrence of *d* is infelicitous in a sentence that begins with *a (d and* if for any expression *g* of the same type as *d* and for any sentence completion *b*', **C |= a (d and g) b' ⇔ a d b'**.

In the end, <u>dd</u>' is acceptable in a sentence *a dd' b* just in case the attempt to be 'articulate' satisfies the boldfaced equivalence in (3), thus violating *Be Brief.* Schlenker_2007 proves that this 'Transparency theory' derives the results of Heim 1983 for a fragment with generalized quantifiers, *modulo* technical assumptions.
      (2)-(3) are tailored to the case of 'articulated' competitors of the form …*(d and <u>dd'</u>)*…. But we propose that a further option (not explored in Schlenker_2008) explains the conditionalized status of cosuppositions. As already suggested by (1)b, the content of a co-speech gesture *G* modifying *d'* in … *G_d'*… is naturally 'articulated' as …*d' g*…, where *g* is a post-verbal modifier with the same content as *G* (e.g. *helped…like*

_this). If d' g is conjunctively interpreted, dynamic semantics predicts that g is trivial in its local context (and violates *Be Brief*) just in case the local context c' of d' guarantees that c'[d'] entails g, i.e. c' $\models$ d'$\Rightarrow$g – hence the conditionalized presupposition we observe. (While *like this* is a particularly simple means of 'articulation', all that matters to derive the desired result is that the at-issue gestural content should come right after the VP d'.)

Within the Transparency theory, the post-posed nature of the modifier[1] explains why the gestural presupposition is conditional, *modulo* the extension of (2)-(3) sketched in (4)a-b. (4)b rules out the articulated

competitor *... helped his son like* _this*...* just in case no matter which further modifier is added, no matter how the sentence ends, the *like*-phrase can be eliminated without affecting the truth conditions. This means that the post-verbal modifier must be trivial *after* the verbal meaning has been computed.

(4) Consider a sentence a G_d' b, where G is a gesture co-occurring with a (modifier-compatible) expression d'.
    a. **Modified *Be Articulate***: Say a (d' g) b rather than a G_d' b, unless this is in violation of (b).
    b. **Modified *Be Brief* – Incremental Version:** Given a context set C, do not say a (d' g) b if g is incrementally trivial, in the sense that for any modifier g', for any sentence completion b', C $\models$ a ((d' g) c') b' $\Leftrightarrow$ a (d' c') b'.

Assuming that the modifiers are intersective, (4)b is equivalent to the acceptability conditions predicted by (2)-(3) for a (d' and gd*) b, where $d*$ is an arbitrary assertive component:

(5) Predictions of (2)-(3) for the acceptability of a (d' and gd*) b
    For any g of the same type as d, for any sentence completion b', C $\models$ a (d' and (g and c')) b' $\Leftrightarrow$ a (d' and c') b'.

As shown in Schlenker_2015b (Appendix I), (5) predicts the same result as a conditional presupposition $d'\Rightarrow g$ in the propositional case and under *[No NP]* – but slightly weaker inferences in other cases.

(One could ask – following suggestions by Kennedy and Szabolcsi – whether this analysis extends to verbs that encode manner modifications, as in (6)a, which might compete with (6)b.

(6) a. None$_F$ of these 10 guys drove / swam to the bridge.
    b. None$_F$ of these 10 guys got to the bridge by driving / got to the bridge by swimming.

Extending *Be Articulate* to (6)a would predict an inference that *for each of these 10 guys, if he had gone to the bridge, he would have done so by driving / swimming*. It is unclear that this holds.)

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[1] We follow Schlenker_2007,2008 in framing the discussion in terms of linear order, but more structural notions could be used instead – as long as they are independently motivated. Languages in which the modifier can come pre-verbally (e.g. German) might well cause problems for a simple-minded analysis based on linear order alone.

References

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