

On gapping and negation*

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Negation sometimes takes scope in unexpected ways in gapping sentences. While sentence negation appears to be contained inside the first coordinate in (1), it can, in fact, take scope over the entire conjunction or disjunction (Oehrle 1987:205, Siegel 1987:53). (1) conveys that it is not the case that Kim played bingo and Sandy sat at home ($\neg(\phi \wedge \psi)$). This interpretation is expected if gapping involves low coordination, since sentence negation can be located outside vP coordinations.

(1) Kim didn't play bingo, and Sandy sit at home all evening. (Johnson 2004:25)

There is also a distributed reading ($\neg\phi \wedge \neg\psi$) where negation takes scope inside each coordinate (Hartmann 2001, Repp 2009). But there is no interpretation where negation asymmetrically takes scope inside just one coordinate ($\neg\phi \wedge \psi$). That is, (1) cannot mean that Kim did not play bingo and that Sandy *did* sit at home all evening.¹

This is not true of all coordinators. As we will see in §1, the corrective use of *but* does allow—and in fact requires— asymmetric coordinations in which negation takes scope just inside *one* coordinate. As I show in §2, these coordinations with corrective *but* also allow gapping, setting up a unique testing ground for theories of gapping. In §3, I argue that the across-the-board movement account undergenerates in coordinations with corrective *but*, because it cannot create the gap without incorrectly ordering the verb before negation.

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¹In this, I disagree with Repp (2009:2), who claims that sentence negation—in both English and German—can take scope just inside the first coordinate in coordinations with *and* and *or*. To support this claim, she offers examples like the following:

(i) Pete wasn't called by Vanessa, and John only by Jessie. (Repp 2009:2)

I cannot interpret (i) with negation taking narrow scope just inside the first conjunct, and no native English speaker I have ever consulted can either.

1 The corrective use of *but*

The coordinator *but* has at least two distinct uses (Anscombe and Ducrot 1977).² Alongside the more familiar COUNTEREXPECTATIONAL use in (2), there is the CORRECTIVE use in (3).³

- (2) Max eats chard but hates it.
- (3) Max doesn't eat chard, but spinach.

The two uses have the same truth conditions. Both (2) and (3) convey the conjunction of two propositions. But the first conjunct of the counterexpectational sentence in (2) also gives rise to an expectation—that because Max eats chard, he does not hate it—which is denied by the second conjunct. The corrective sentence in (3) does not convey such an expectation, so that it simply entails that Max does not eat chard and that he does eat spinach:

$$(4) \quad \neg \text{eat}(\text{chard})(\text{max}) \wedge \text{eat}(\text{spinach})(\text{max}) \quad = (3)$$

The negation in the first coordinate of the corrective *but* sentence in (3) is obligatory—**Max ate chard, but spinach*. And, crucially, it takes semantic scope just inside the first conjunct.

For this reason, there must be more to the structure of the corrective *but* sentence in (3) than meets the eye. Assuming for simplicity that sentence negation adjoins to vP, corrective *but* must coordinate two constituents that are at least as large as vPs, so that negation can adjoin just inside the first of them. If we thought instead that it coordinated smaller constituents—say DPs, because *but* is followed by *spinach*—negation would necessarily take scope over the entire conjunction, contrary to fact.

If corrective *but* coordinates constituents at least as large as vPs, then in (3) the second coordinate must somehow be reduced to a DP, *spinach*. This reduction has the profile of gapping (McCawley 1991, Vicente 2010, Toosarvandani 2013), since it can leave behind a single remnant, as in (3), or multiple remnants:

- (5) Liz didn't sell her bike to a friend for \$100, but her car for \$1,000.

It is hard to see how the string following corrective *but* in (5)—comprised of the discontinuous DP *her car* and PP *for \$1,000*)—could arise, except through an elliptical operation like gapping.⁴

2 Gapping with corrective *but*

Gapping in coordinate structures with corrective *but* exhibits the same properties that it does elsewhere. For instance, a quantifier in the subject position of the first coordinate can take scope over the second coordinate:

²It is usually assumed, following Anscombe and Ducrot (1977), that English has distinct, albeit homophonous, lexical items corresponding to the counterexpectational and corrective uses, since other languages have phonologically distinct lexical items (see Pusch 1975, Abraham 1979, and Lang 1984:238–262 for German; Dascal and Katriel 1977 for Hebrew; Toosarvandani 2010:26f. for Persian; and, Schwenter 2000 and Vicente 2010 for Spanish). Though, see Toosarvandani 2014 for a unified semantic account of these and other uses.

³The term ‘corrective’ is a misnomer, since this use of *but* does not actually require the speaker to correct a previous utterance, though this is a possible use (McCawley 1991, Toosarvandani 2010:49f., 2014).

⁴A persistent mystery, originally identified by McCawley (1991:192), is why subject remnants are always impossible with corrective *but*: **Max does not eat chard, but Sam*. To my knowledge, no explanation has yet been offered for this restriction.

- (6) a. No child didn't eat chard but spinach.
 'There was no child who did not eat chard and who ate spinach.' *no* > \wedge
- b. At most five students didn't drink the whiskey but the gin.
 'There were at most five students who did not drink the whiskey and who drank the gin.' *at most five* > \wedge

The sentence in (6a) is true in a state of affairs where there are no children who did not eat chard and who ate spinach. In other words, every child ate chard or did not eat spinach. Similarly, the sentence in (6b) is true in a state of affairs where at most five students did not drink the whiskey and who drank the gin. Also, as shown in (7), a subject quantifier in the first coordinate can bind a variable in the second coordinate.

- (7) No woman_i didn't talk to an old friend, but to her_i girlfriend.
(Toosarvandani 2013:857)

Moreover, neither the gap in the second coordinate, as in (8), nor its antecedent in the first coordinate, as in (9), can be embedded.

- (8) * Max didn't bring gin to the party, but he claims that vodka.
 (9) * She said that Max didn't bring gin to the party, but vodka.
(Toosarvandani 2013:860)

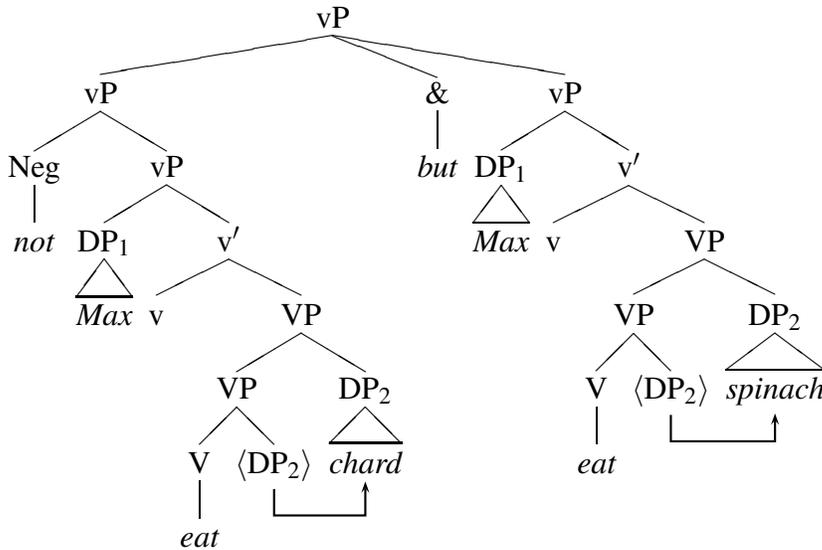
Recall that the interpretation under which the sentence in (9) is ungrammatical is: She said that Max did not bring gin to the party, and he did bring vodka to the party.

3 Across-the-board movement cannot derive gapping with corrective *but*

The across-the-board movement account fails to derive gapping in coordinations with corrective *but*. It can only generate a structure in which the main verb is incorrectly ordered *before* negation. Under Johnson's account, corrective *but* in (3) would coordinate two vPs, with sentence negation adjoined at the left edge of the first coordinate:

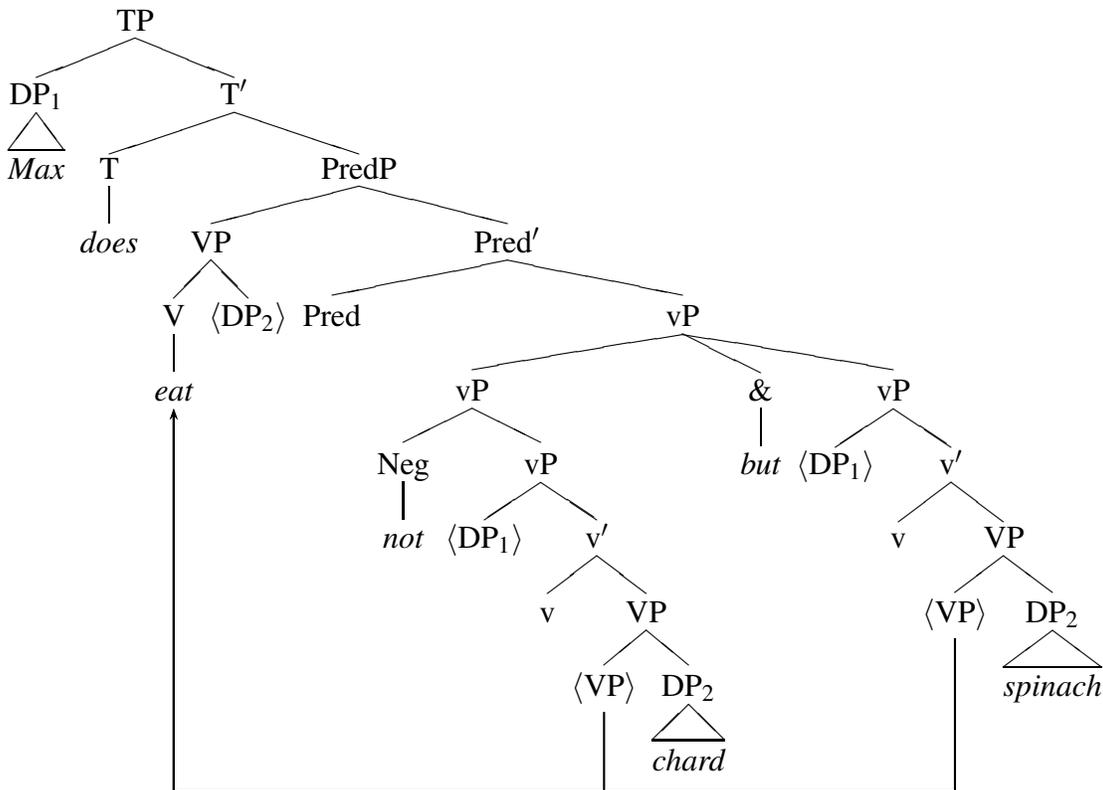
(10)

= (3)



Then, the remnant and its correlate in the first coordinate would each raise and adjoin to their respective VPs. Finally, the lower segments of VP would across-the-board move into Spec-PredP (in addition, the subject of each coordinate would have to across-the-board move into Spec-TP):

(11)



At the end of the derivation, VP is located outside and to the left of the coordination. But this incorrectly places the main verb before negation contained in the first coordinate. The across-the-board movement account undergenerates by failing to derive the grammatical sentence in (2).

In principle, one could maintain the across-the-board movement account of gapping by positing some sort of mismatch between the interpretation and pronunciation of negation in corrective *but*

sentences. This mismatch can be achieved through one of two strategies, neither of which strikes me as feasible. First, negation could start out outside the coordination. If this were high enough, it would derive the position of negation before the main verb. But then negation would have to lower into the first coordinate (only) at LF. This is a type of movement that, to my knowledge, is completely unprecedented.

Alternatively, negation could start out inside the first coordinate, giving rise to the correct interpretation. It would then raise out of the coordinate structure to the left of the main verb at PF. Ostensibly, there would be some sort of phonological or morphological motivation for this movement. Whatever this is, it would have to extend to the full range of negative elements that can occur inside the first coordinate of corrective *but*. This includes negative left-edge adverbs such as *never* (12a), *rarely* (12b), and *no longer* (12c).

- (12) a. I had **never** been on the A team but always the B or C team throughout middle school and 10th grade.⁵
- b. It is **rarely** found inside a house, but often outside in the garden, and in sheds.⁶
- c. When he heard music he **no longer** listened to the notes, but the silences in between.⁷

Just like sentence negation in (3), these adverbs take scope semantically inside the first conjunct. Consequently, Johnson's account is unable to generate the sentences in (12a–c), since across-the-board movement would incorrectly order the main verb before the negative left-edge adverb.

The across-the-board movement account derives the gap in the second coordinate by moving the VP of each coordinate entirely outside the coordinate structure. Since coordinations with corrective *but* contain sentence negation or another negative element inside the first coordinate, this always incorrectly places the main verb before them. Barring some mismatch between where the negative element is interpreted and where it is pronounced, the gap in gapping simply cannot arise through across-the-board movement.

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⁵<http://www.ncsasports.org/football-recruiting/tx/katy/cinco-ranch-high-school/joshua-firth>, August 9, 2012.

⁶<http://www.hitman.com.au/news/5-spiders-likely-to-be-lingering-around-your-house/>, August 9, 2012.

⁷Nicole Krauss. 2006. *The history of love: A novel*. New York: W. W. Norton.

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