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Verum Focus and T-to-Σ movement in English[*]

Highlights:

- I show that English speakers express Verum Focus in two different ways, which I analyze as satisfaction of different constraints on the result of head movement.
- The surface position of English Tense is achieved by simple upward head-movement, starting as a sister of V.
- Bobaljik's (2002) account of English Tense, using the *PF string adjacency criterion* is shown to be empirically inadequate.

1   English V+T merger

(1)   In English, T and V merge in the affirmative. "Not" blocks the merger.

    a.   John came to the party.
        T+V

    b.   John didn't come to the party.
        T+Σ   V

(2)   Downward movement ("affix hopping", Chomsky 1957, Pollock 1989) is no longer available, if we accept current minimalist ideas.

(3)   Bobaljik's (2002) analysis involves fusion of Infl and V under *PF string adjacency*, i.e. the absence of phonological material to disrupt fusion.

    Infl fuses with V when they are string adjacent. When a head like "not" intervenes, fusion is impossible, and "do" is inserted.

    This approach does not extend to AFF (Affirmation), the other lexical item that can head ΣPΣ.

(4)   Verum Focus

    There is a silent Affirmation head (AFF) whose position is the same as Neg (Laka 1994). Verum Focus results from focusing AFF.

    Some speakers treat AFF_FOC as *optionally* disruptive of string adjacency

    a.   John: I heard that Bill didn't come to the party.
        Mary: That's not true. Bill [did]_FOC come to the party.
        Judgment: Grammatical for all speakers.

    b.   John: I heard that Bill didn't come to the party.
        Mary: That's not true. Bill [came]_FOC to the party.
        Judgment: Grammatical only for some speakers.

(5)   The *PF string adjacency* criterion cannot capture the data, since in this case a single phonologically null morpheme is *optionally* disruptive.

2   Constrained head-movement

(6)   I propose that we return to the stronger condition on fusion:
Xº and Yº fuse iff they are sisters whose mother is Xº.

(7)   T must be allowed to show up in two positions:

- Lower position: Tense morphology (goal) comes into the syntax as V's sister
- Higher position: Tense feature (probe) above VP/ΣP projects TP.

When no other head intervenes between the two T's (à la Chomsky 1995), the Tense morphology can check the Tense feature in situ, so Tense can be pronounced in its lower position .

When "not" intervenes, Tense morphology moves up to be close enough to its probe. As Tense must be pronounced on a verb, "do" is inserted in this position.
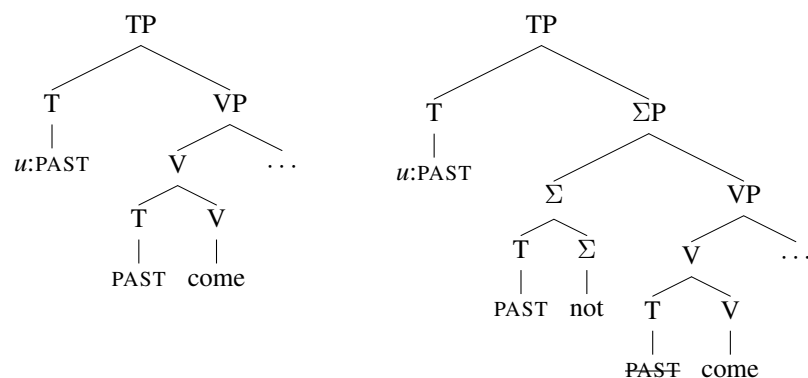
The lower Tense breaks out of its V sister because English speakers enforce the constraint *V+not, which prohibits the fusion of V with "not".

## 3   Verum Focus and surface constraints on head movement

(8)   Speakers fall into two groups when they judge Verum Focus. Within each group, judgments are consistent across syntactic environments.

(9)   Each group is best characterized as imposing a constraint on the surface result of head movement:

- *V+not — disallows the fusion of a main verb and "not"
- *V+Σ — a more general constraint, disallows the fusion of a main verb with any Σ head, either "not" or AFF.

Both groups treat "not" the same. Differences will only be apparent with AFF.

(10)   Verum Focus and a tensed T

a.   John: I heard that Bill didn't come to the party.
Mary: That's not true. Bill [did]_{FOC} come to the party.
Judgment: Grammatical for all speakers.

b.   John: I heard that Bill didn't come to the party.
Mary: That's not true. Bill [came]_{FOC} to the party.
Judgment: Grammatical only for *V+not speakers

a.   ... [did]_{FOC} come to the party
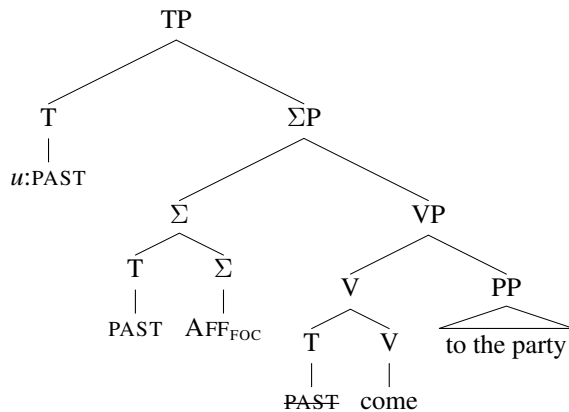
b.   ... [came]_{FOC} to the party
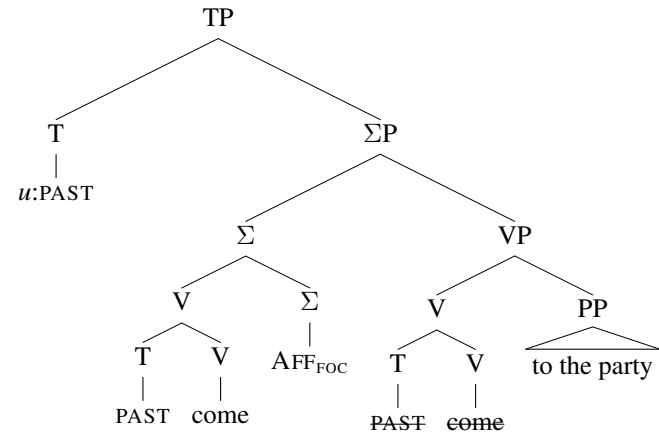
Speakers who enforce *V+Σ will make Tense break out of its V sister in order to get close enough to the Tense probe.
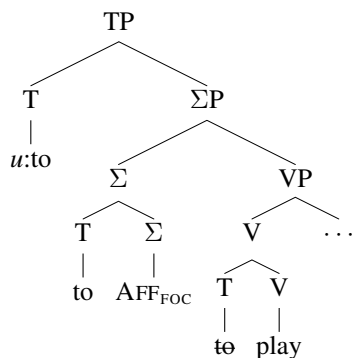
Speakers who enforce *V+not can allow the whole V+T complex head to move. The preference for moving the whole complex head is due to the A-over-A principle.

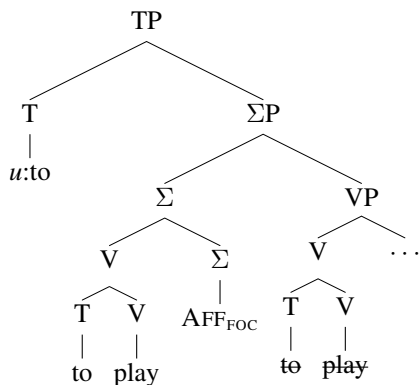(11)   Verum Focus and a tenseless T

a.   John: The conductor told Bill not to play vibrato.
Mary: That's not true. The conductor told Bill [to]_{FOC} play vibrato.
*V+not speakers — marginal; *V+Σ speakers — fine

b.   John: The conductor told Bill not to play vibrato.
Mary: That's not true. The conductor told Bill to [play]_{FOC} vibrato.
*V+not speakers — fine; *V+Σ speakers — ungrammatical

The account in (9) extends to these cases with no further machinery.

a. "... [to]$_{FOC}$ play ..."

```
                    TP
                   /  \
                  T    ΣP
                  |   /  \
               u:to  Σ    VP
                    / \   / \
                   T   Σ  V  · · ·
                   |   |  / \
                   to AFF_FOC T  V
                            |  |
                            to play
```

b. "... to [play]$_{FOC}$ ..."

```
                    TP
                   /  \
                  T    ΣP
                  |   /  \
               u:to  Σ    VP
                    / \   / \
                   V   Σ  V  · · ·
                  / \  |  / \
                 T  V AFF_FOC T  V
                 |  |        |  |
                 to play     to play
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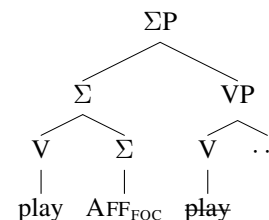
(12) Verum Focus without Tense

Context: John and Mary are discussing Bill's rendition of a certain note. This note was supposed to be played vibrato. Of course, it's quite possible to hear whether a certain note was or was not played vibrato.

John: I heard Bill not play vibrato.
Mary: Well, that's funny. I heard Bill [play]$_{FOC}$ vibrato.

*V+not speakers — fine; *V+Σ speakers — ungrammatical.

```
                 ΣP
                /  \
               Σ    VP
              / \   / \
             V   Σ  V  · · ·
             |   |  |
            play AFF_FOC play
```

The *V+Σ speakers are stuck. AFF$_{FOC}$ can't fuse with V, and there is no other way to pronounce it.

4   PF string adjacency (Bobaljik 2002) and Verum Focus

The *string adjacency* criterion cannot account for the *V+not speakers treatment of AFF$_{FOC}$ because it disrupts the fusion of V and T *optionally*.

Does AFF$_{FOC}$ count as phonologically null or doesn't it? Neither answer will work for the *V+not speakers.

(13) Bill PAST AFF$_{FOC}$ come to the party
          T   Σ   V

(14) John: I heard that Bill didn't come to the party.
      Mary: That's not true. Bill [did]$_{FOC}$ come to the party.
      Judgment: Grammatical for all speakers.

(15) John: I heard that Bill didn't come to the party.
      Mary: That's not true. Bill [came]$_{FOC}$ to the party.
      Judgment: Grammatical for *V+not speakers.

5   PF string adjacency and linearization

(16) Adverbs don't disrupt the relationship between T and V:

      a.   John always eats spam
            * John does always eat spam

      b.   John completely disrobed
            * John did completely disrobe

(17) No problem for me:
      The adverb is adjoined to VP, no head intervenes between the Tense morphonolgy and the Tense feature.

(18) The *string adjacency* account depends on the conversion of the syntactic tree to a "linear string of Xᵒs".

Bobaljik (2002): The requirements on the linearization of adverbs are less strict, because they are adjoined to VP:

... PAST [$_{VP}$ always [$_{VP}$ eat ...
　　 T　　　　Adv　　　　V

T is required to precede the VP, but not necessarily the highest VP (one could say that the linearization requirements are stated existentially rather than universally). There are two linear strings that are compatible with the linearization requirements[2]

a. ... PAST always eat ... (T precedes the highest VP)

b. ... always PAST eat ... (T precedes some VP)

Unfortunately, this makes the input to the phonology a linear strings of Xᵒs, predicting the non-existence of phrase-level phonology.

6 VP-adjoining adverbs again

(19) In my account, *V+Σ speakers always keep V inside the VP.

(20) *V+not speakers optionally allow V to break out of the VP and to raise to Σ when is contains AFF$_{FOC}$. This predicts that with Verum Focus, V's will show up to the left of VP-adjoining adverbs. Sadly, this doesn't seem to happen.

a. John: I heard John didn't completely finish his work.
   Mary: That's not true. John [did]$_{FOC}$ completely finish his work.

b. John: I heard John didn't completely finish his work.
   * Mary: That's not true. John completely [finished]$_{FOC}$ his work.

c. John: I heard John didn't completely finish his work.
   * Mary: That's not true. John [finished]$_{FOC}$ completely his work.

(b) is correctly predicted not to occur.
The problem is that I predict (c) to be grammatical.

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[2]I don't see how this gives us the ungrammaticality of "John does always eat spam". It also predicts equal grammaticality for "John will always eat spam" and "John always will eat spam", and "John will completely disrobe" and "John completely will disrobe"

... [did]$_{FOC}$ completely finish his work
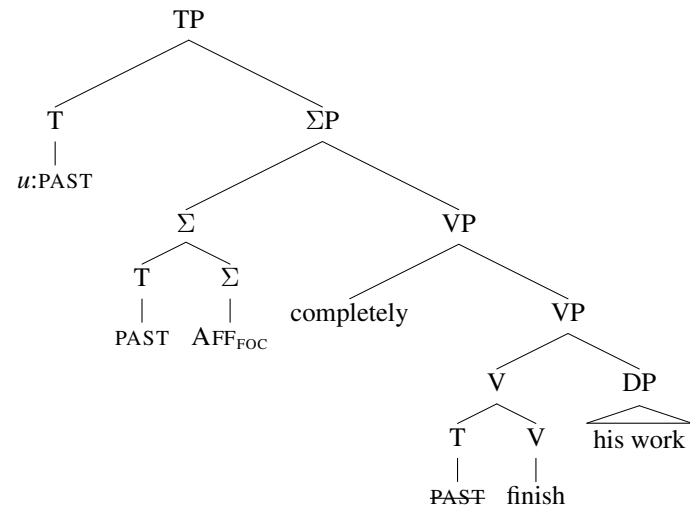
* ... [finished]$_{FOC}$ completely his work
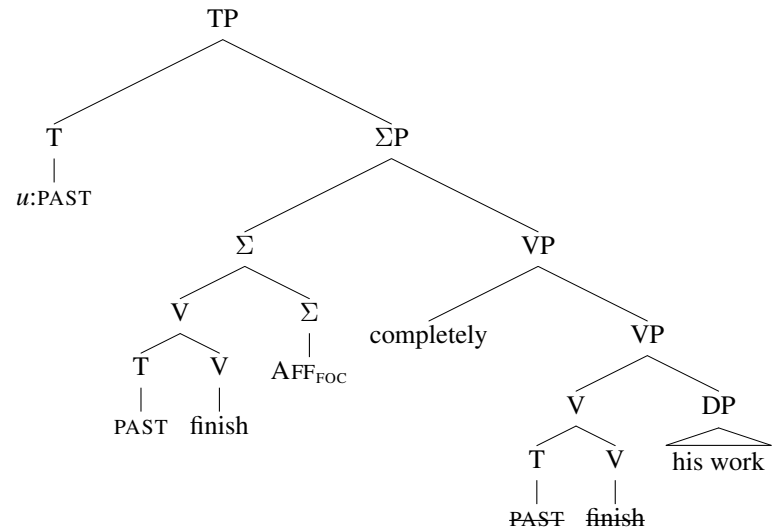
(21) And the same problem again with the tenseless T:

   a. John: The conductor told Bill not to wildly play vibrato.
      Mary: No, the conductor told Bill [to]$_{FOC}$ wildly play vibrato.
      Grammatical for all speakers.

   b. John: The conductor told Bill not to wildly play vibrato.
      Mary: No, the conductor told Bill to wildly [play]$_{FOC}$ vibrato.
      Ungrammatical for all speakers.

   c. John: The conductor told Bill not to wildly play vibrato.
      Mary: No, the conductor told Bill to [play]$_{FOC}$ wildly vibrato.
      Ungrammatical for all speakers.

... [to]$_{FOC}$ wildly play ...
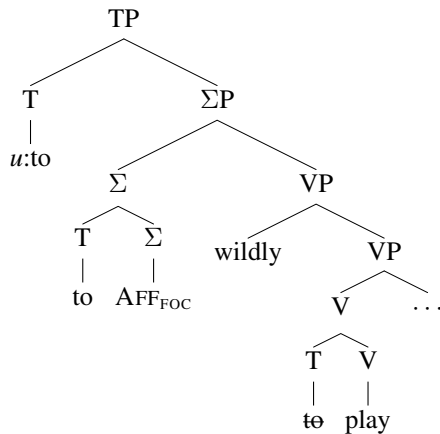
* ... to [play]$_{FOC}$ wildly ...
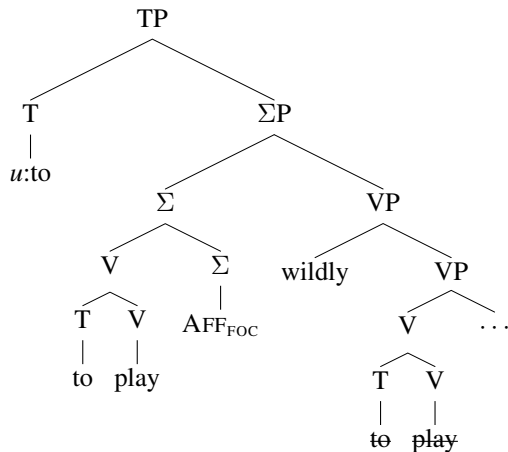
7 Conclusion

(22) There is a dialect split in English which shows up in cases of Verum Focus.

(23) Bobaljik's (2002) account of English "not" cannot capture the Aff data, and it also predicts the non-existence of phrase-level phonology.

(24) Accounting for the behavior of English Tense using upward head-movement seems to be doable.

References

Bobaljik, Jonathan (2002) A-chains at the PF-interface: Copies and 'covert' movement. *Natural Language and Linguistic Theory* **20**. 197–267.

Chomsky, Noam (1957) *Syntactic Structures*. The Hague: Mouton.

Chomsky, Noam (1995) *The Minimalist Program*. Cambridge, MA: MIT Press.

Laka, Itziar (1994) *On the Syntax of Negation*. Outstanding dissertations in Linguistics, New York: Garland.

Pollock, Jean-Yves (1989) Verb movement, Universal Grammar and the Structure of IP. *Linguistic Inquiry* **20**. 365–424.