

Verbal Morphology: A Hybrid Account

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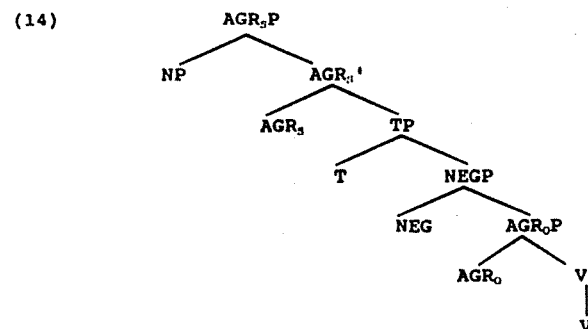
I. English vs. English; English vs. French

- (1) A traditional description of the verb system in terms of head movement':
 - a S is the maximal projection of the inflectional morpheme Infl (= C of Syntactic Structures).
 - b Infl takes VP as its complement.
 - c When the head of VP is *have* or *be* it raises to Infl, the next head up. (not is a modifier of VP?)
 - d Otherwise Infl lowers to V (under a condition of adjacency?).
 - e Otherwise *do* adjoins to Infl.
- (2) The 'stranded affix' filter: A morphologically realized affix must be a syntactic dependent of a morphologically realized category, at surface structure. (Lasnik (1981))
- (3) (2) eliminates much of the strict rule ordering and arbitrary obligatory marking of Syntactic Structures, but does not guarantee that *do*-support is a 'last resort', operating only when there is no other way to avoid a stranded affix.
- (4) A syntactic version of the 'Elsewhere Condition' of Kiparsky (1973): If transformations T and T' are both applicable to a P-marker P, and if the set of structures meeting the structural description of T is a proper subset of the set of structures meeting the structural description of T', then T' may not apply. (Lasnik (1981))
- (5) The SDs of verb raising and affix hopping mention Infl and (aux) V, while that of *do*-support mentions only Infl.
- (6) Alternative: UG principles are applied wherever possible, with language-particular rules used only to "save" a D-structure representation yielding no output. Verb raising and affix hopping are universal; *do*-support is language-particular. (Chomsky (1991))
- (7) a *John likes not Mary
b Jean (n')aime pas Marie
- (8) In French, all verbs are capable of raising, not just *have* and *be*. Unlike the situation in English, affix hopping and *do*-support are never needed. (Emonds (1978))

- (9) 'Infl' is not one head; it consists of (at least) Tense and Agr, each heading its own projection.
- (10) a English Agr, because not morphologically rich, is 'opaque' to θ -role transmission. Thus, if a verb with θ -roles to assign were to raise, it would be unable to assign them, resulting in a violation of the θ -criterion.
b French Agr, because morphologically rich, is 'transparent' to θ -role transmission. (Pollock (1989))

II. Economy of Derivation

- (11) Raising is preferred to lowering, because lowering will leave an unbound trace that will have to be remedied by re-raising in LF. (Chomsky (1991))
- (12) a *John not writes books
b John does not write books
- (13) Why isn't (12)a, with overt affix lowering followed by LF re-raising, preferred over (12)b, with language particular last resort *do*-support?



- (15) The Head Movement Constraint (reduced to an ECP antecedent government requirement) prevents the LF re-raising needed in the derivation of (12)a. The intervening head NEG cannot be crossed.
- (16) But then why is overt raising possible in French, and, in the case of *have* and *be*, in English as well?
- (17) a If AGR moves, its trace can be deleted, since it plays no role in LF.
b If V moves, its trace cannot be deleted.
c Deletion of an element leaves a category lacking features, [e].
d Adjunction to [e] is not permitted. (Chomsky (1991))

- (18)a When V overtly raises (French), (7)b, it first adjoins to AGR₀, creating [AGR₀ V AGR₀];
 b Next, AGR₀ raises to T, crossing NEG, thus leaving a trace that is marked [-v], indicating a violation of the ECP. That trace is an AGR;
 c Eventually, in accord with (17)a, the [-v] trace is deleted, so there is no ECP violation (where ECP is, as in Lasnik and Saito (1984;1992), an LF filter: *[-v]).
- (19)a When V vainly attempts to covertly (re-)raise in LF (English), (12)a, AGR₀ has already lowered overtly to T, leaving an AGR trace (which deletes, leaving [e]), and creating a complex T,
 b which has lowered to AGR₀, leaving a T trace and creating a still more complex AGR,
 c which has lowered to V, leaving an AGR trace (which deletes, leaving [e]), and creating a complex V.
 d This complex V raises to the [e] left by the deletion of the AGR₀ trace, a movement that is, by (17)d, necessarily substitution, thus turning [e] into V.
 e This element now raises across NEG to (the trace of) T, leaving behind a [-v] trace which is, crucially, a V trace, hence non-deletable. The resulting LF is in violation of the ECP.
- (20) Note that (17)a, (18)c are inconsistent with a central economy condition of Chomsky (1991): Deletion is only permitted to turn an ill-formed LF object onto a well-formed LF object, where the relevant well-formed objects are operator-variable pairs and 'uniform chains' (chains all of whose members are X⁰s, are in A-positions, or are in A'-positions). This is precisely to prevent making a short licit head-, A-, or adjunct-movement, followed by a long illicit movement, with subsequent deletion of the offending trace. But exactly that is crucially being allowed here.
- (21) A related problem is that generally, an illicit movement results in some degradation (e.g., Subacency effects), even if the offending trace is eventually eliminated. But the overt V-movement at issue here is fully grammatical.

III. A Minimalist Approach

i. (Chomsky (1993))

- (22)a Strong lexicalism: verbs are pulled from the lexicon fully inflected.
 b There is thus no obvious need for affix hopping.
 c Rather, the inflected V raises to Agr (and T) to 'check' the features it already has. This checking can, in principle, take place anywhere in a derivation on the path to LF.
 d Once a feature of AGR has done its checking work, it disappears.
- (23) So what's the difference between French and English?

- (24)a In French, the V-features of AGR (i.e., those that check features of a V) are strong.
 b In English, the V-features of AGR are weak.
- (25)a If V raises to AGR overtly, the V-features of AGR check the features of the V and disappear. If V delays raising until LF, the V-features of AGR survive into PF.
 b V-features are not legitimate PF objects.
 c Strong features are visible at PF; weak features are not. Surviving strong features cause the derivation to 'crash' at PF.
- (26) This forces overt V-raising in French.
- (27) In English, delaying the raising until LF does not result in an ill-formed PF object, so such a derivation is possible. What makes it necessary is:
- (28) 'Procrastinate': Whenever possible, delay an operation until LF.
- (29) Why do *have* and *be* raise overtly?
- (30) *Have* and *be* are semantically vacuous, hence not visible to LF operations. Thus, if they have not raised overtly, they will not be able to raise at all. Their unchecked features will cause the LF to crash.
- (31) Questions about (30): (1) Should syntactic operations, even those in the LF component, care about purely semantic properties? (2) If English subjunctives have a V feature to be checked, *have* and *be* evidently can raise in LF (and, along with main verbs, do so across negation):
- (32)a I desire that John not leave
 b I desire that John not be here
- (33) The potential problem in (32) clearly arises in other languages, such as Swedish, where auxiliary verbs pattern exactly with main verbs in remaining in situ in embedded clauses:
- (34)a om hon inte ofte har sett honom
 whether she not often has seen him
 b * om hon har inte ofte sett honom
 c * Om hon inte har ofta sett honom
- (35) *John not left
- (36) Chomsky (1993) does not discuss how to rule out (35). Note that (19) does not carry over to this framework (even if we wanted it too). This much is clear: it must be ruled out, but its derivation must not crash. If it crashed, it couldn't block (37), since Procrastinate only chooses among convergent derivations.
- (37) *John left not

ii.

- (38) At the core of 'economy' approaches, of which the 'minimalist' approach is one, is the concept of choosing the best among competing derivations. It has never been clear in general, however, what determines the relevant comparison set. Chomsky (1994) has suggested a highly principled answer: To begin a derivation, you choose from the lexicon all the items you will use, annotating each with a counter indicating how many times it will be used. Call this collection a 'numeration'. The comparison set includes all and only derivations from the same numeration. This has the positive effect that (39)a does not block (39)b (or vice versa), since the numerations differ with respect to there.

- (39)a There is someone here
b Someone is here

- (40) In line with strong lexicalism, forms of do, just as much as there, are in the lexicon. Do, when it occurs, will then be part of a numeration. Derivations with and without do are not comparable. The 'last resort' nature of do-support cannot be directly captured. I note this problem here, but put it aside.

IV. Notes Towards a Hybrid Minimalist Account

- (41) Chomsky's lexicalist-minimalist account demands that AGR and T are just abstract features that check against features of fully inflected verbs which raise to them. The earlier accounts treated such Infl items as bound morphemes that had to become affixes on otherwise bare verbs. Can both possibilities coexist? (42) sketches such a possibility.
- (42)a French verbs are fully inflected in the lexicon (possibly correlating with the fact that there are no bare forms; even the infinitive has an ending).
b Have and be are fully inflected in the lexicon (possibly correlating with the fact that they are highly suppletive, but see below).
c All other English verbs are bare in the lexicon.
- (43) Infl is freely an affix or a set of abstract features.
- (44)a Finite featural Infl is strong in both French and English.
b Affixal Infl must merge with a V, a PF process (distinct from head movement) demanding adjacency. Halle and Marantz (1993)); Bobaljik (1993))

- (45)a ... Infl ... V ... OK. V will overtly raise.
+F +F

- b ... Infl ... V ... OK. PF merger.
Af bare

- c ... Infl ... V ... * at LF. +F of I won't be checked;
+F bare * at PF as well, since +F is strong.

- d ... Infl ... V ... * at LF. +F of V won't be checked.
Af +F * at PF also, if merger fails.

- (46)a French Infl will thus always have to be featural.
b English Infl will always have to be featural, when the verb is have or be.
c English Infl will always have to be affixal with any other verb.

- (47)a *John not left {Merger couldn't have taken place.}
b *John left not {Left isn't in the lexicon, so no feature could drive raising.}

- (48) Jean (n')aime pas Marie
(49) John has not left

- (50) Why is raising allowed in (48), (49)? Here are 3 possibilities:

- (51)a NEG and V are heads of different sorts, rendering an even more relativized version of RM irrelevant.
b NEG is not a head, but a modifier. Note that its major role as a head had been to block (47)a, which is now irrelevant to the issue.
c {The most radical} There is no Head Movement Constraint. In any theory where movement is driven solely by the need for features to be satisfied, the standard HMC example is irrelevant: *Read John will t the book won't be generated simply because no feature will drive the movement of read to Comp. It is only finite verbs that raise to Comp, clearly indicating that the crucial feature is Tense.

- (52) John slept, and Mary will too
(53)a *John slept, and Mary will slept too
b John slept, and Mary will sleep too

- (54) ?John was sleeping, and Mary will too
(55)a *John was sleeping, and Mary will sleeping too
b John was sleeping, and Mary will sleep too

- (56) John has slept, and Mary will too
(57)a *John has slept, and Mary will slept too
b John has slept, and Mary will sleep too

- (58) **Hypothesis 1:** Any form of a verb V can be 'deleted under identity' with any form of V (reminiscent of Piengo and May's 'vehicle change').
- (59) *John was here, and Mary will too
- (60) a *John was here and Mary will was here too
b John was here and Mary will be here too
- (61) Could it be that a trace can't serve as (part of) an antecedent for deletion?
- (62) Linguistics, I like, and you should to
- (63) ?Someone will be in the office, won't there?
- (64) That this approach will fail is likely. Yes it is.
- (65) John will be here, and Mary will too
- (66) ?*John has been here, and Mary will too
- (67) *John was being obnoxious, and Mary will too
- (68) *John was being obnoxious, and Mary has too
- (69) ?John should have left, but Mary shouldn't have left
- (70) *John has left, but Mary shouldn't have left
- (71) John has a driver's license, but Mary shouldn't
- (72) ?*John hasn't a driver's license, but Mary should
- (73) **Hypothesis 2** (merely a descriptive generalization): Any form of a verb V other than *be* or 'auxiliary' *have* can be 'deleted under identity' with any form of V. A form of *be* or auxiliary *have* can only be deleted under identity with the very same form.
- (74) Is this difference related to (degree of) suppletion?
- (75) John went, and Mary will too
- (76) *John was being obnoxious, and Mary will too
- (77) The paradigm of *go* is highly suppletive, yet apparent deletion under incomplete identity is allowed. Progressive form of all verbs, including *be*, is completely regular, yet such deletion is significantly degraded.
- (78) *John slept, and Mary was too
- (79) John slept, and Mary was sleeping too
- (80) *John will sleep. Mary is now.
- (81) John will sleep. Mary is sleeping now.
- (82) **Hypothesis 3:** A form of a verb V can only be deleted under identity with the very same form. Forms of *be* and auxiliary *have* are introduced into syntactic structures already fully inflected. Forms of 'main' verbs are created out of lexically introduced bare forms and independent affixes.

- (83) John Infl sleep, and Mary will sleep too
- (84) John was ing sleep, and Mary will sleep too
- (85) John has en sleep, and Mary will sleep too
- (86) John Infl sleep, and Mary was ing sleep too
- (87) a John is not foolish
b *Be not foolish
c Be foolish
- (88) a The Imperative morpheme (generated in the position of Tense) is strictly affixal, hence there will never be raising to it (just merger with it)
b OR Imp is freely affixal or featural, and *be* and auxiliary *have* lack imperative forms in the lexicon.
- (89) a *Not leave {Lack of adjacency blocks merger}
b *Not be foolish
- (90) Leave. I don't want to.
- (91) Mary left. I don't want to.
- (92) Be quiet. I don't want to.
- (93) Mary is quiet. *I don't want to.

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