The status of “mobile” suffixes

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Verbal suffixes encoding grammatical notions of mood, modality, tense, aspect, and voice have been found to obey a relative order which is largely consistent across languages (Bybee 1985). This order appears to reflect, in a mirror fashion, that of the corresponding free morphemes (auxiliaries and particles), in VO languages, suggesting the existence of a layered constitution of the clause (Foley/Van Valin 1984, Dik 1989).

In Cinque (1999), I have proposed that the layered structure of the clause is much richer than previously thought. Each of the ordered categories of mood, modality, tense, aspect and voice break down into a number of distinct grammatical markers, which are also ordered among each other. If we put together these different orders, we reach some forty or so grammatical layers for the clause. Within this picture of a rigid and invariant universal structure for clauses, “mobile” suffixes constitute a particularly severe challenge, as they seem to point to an at least partially undetermined layered structure.

On the basis of a number of representative cases, however, I will conclude that it is ra-

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2 Bybee (1985) found that aspect suffixes are invariably closer to the verbal stem than tense suffixes, which are, in turn, closer to the verbal stem than mood suffixes. As pointed out by Johanna Nichols (cf. Foley Van Valin 1984, 223) Tesnière (1939) proposed a similar universal order of such suffixes: voice, aspect, tense of aspect, mode, tense of mode.

3 Apparent inconsistencies between Bybee’s and Foley/Van Valin’s findings arguably stem from differences in what the authors take to fall under the notion ‘mood’ in their respective systems (cf. Cinque 1999, 55f).

4 A related suggestion of Cinque’s (1999) is that the relative order of grammatical markers of mood, modality, tense, aspect, and voice corresponds to the relative order of the different classes of adverbs occurring in a clause, where each adverb is analyzed as a specifier (phrasal modifier) of one grammatical (head) marker in a basic X-bar format.

Of course, no language displays all of the grammatical markers, or allows all of the different adverb classes to co-occur in a single sentence. Yet, the relative orders among them, across languages and clauses, can be obtained by transitivity, and appear to be consistent with the overall order of forty or so layers suggested in Cinque’s (1999).

That adverbs (“satellites”) belong to different layers of the clause is also proposed in Dik’s functionalist model (cf. Dik et al. 1990).
tional not to abandon the stronger assumption that the grammatical markers of mood, modality, tense, aspect, and voice enter an invariant and rigid universal order.

Consider first the case of variable ordering of a suffix in one and the same language.

In Turkish, the -(y)Abil- suffix expressing ability/permission or possibility is found to either precede or follow the negative suffix -mA- (the -(y)Abil- suffix is truncated to -(y)a- before the negative suffix -mA-—see Kornfilt 1997, 375, and Kornfilt 1998, from where (1) is taken):

(1) a. oku-ya-ma-m
    read-ABIL-NEG-1sg
    ‘I am unable to/am not permitted to read’

b. oku-ma-yabil-ir-im
    read-NEG-ABIL-AOR-1sg
    ‘I might not read; it is possible that I not read’

It could thus be thought that the -(y)Abil- suffix is unordered with respect to negation (hence, that the corresponding modal layer has no rigidly fixed position). Yet, the -(y)Abil- suffix receives two different interpretations depending on whether it precedes or follows the negative suffix: that of a root modal (‘be able to/be permitted to’) when it precedes, and that of an alethic modal (‘it is possible/might’) when it follows.

This suggests that the -(y)Abil- suffix can occupy two distinct slots, corresponding to two distinct modal layers, a higher, alethic, layer and a lower, root, one. This conjecture is consistent with what we know of English (and other languages) double modal varieties (cf., for example, ‘He’ll might could do it’ and similar cases, in Hawick Scots; Brown 1992, 75), where alethic modality indeed appears to be distinct from, and more distant from the lexical verb than, root modality (Cinque 1999, Chapter 4). So, the conclusion that the modal suffix of Turkish is mobile is not really warranted.

Evidence internal to Turkish confirms this interpretation, as the two modal suffixes can be simultaneously present (see (2), also from Kornfilt 1998), with -(y)Abil both preceding and following the negative suffix:5

(2) oku-ya-ma-yabil-ir-im
    read-ABIL-NEG-ABIL-AOR-1sg
    ‘I might be unable to read; it is possible that I shall be unable to read’

More generally, whenever one and the same suffix can encode two different (presumably related) grammatical notions occupying two different positions, the illusion can be created that one and the same marker can occur in two different positions in the hierarchy of grammatical layers.6

5 In (2), the outer suffix necessarily expresses alethic possibility, and the inner one ability/permission, in a way consistent, as noted, with the facts of double modal varieties.
6 The same picture, modulo the insertion of an auxiliary to bear the outer -(y)Abil- suffix, is found in the cooccurrence of -(y)Abil- with the progressive aspect suffix -iør-, or the perfect aspect suffix -miş-. See (i) a–c, (ii) a–c, which were provided by Jaklin Kornfilt (personal communication):
This is no different from what is found with adverbs occupying two distinct positions (see Cinque 1999 for more discussion). Honestly, for example, can occur either before or after an adverb like always. When it precedes ((3)), it is interpreted as a speech act modifying adverb (I’m honest in saying that):

(3) Honestly, I always pay my taxes

When it follows ((4)), it is interpreted as a manner adverb (I pay them in an honest way):

(4) I always pay my taxes honestly

That one and the same morpheme can occur in two distinct positions (with two different functions) is shown, once again, by the possibility of its occupying the two positions simultaneously. See (5):

(5) Honestly, I always pay my taxes honestly

The systematic parallelism between the apparently variable order of suffixes and that of adverbs is shown in a particularly clear way by the following variable ordering of the repetitive aspect suffix -(ći-ko-) in Tepehua (Watters 1988:237). This suffix may either precede or follow the desiderative suffix -putun (cf. (6)a–b), but, as Watters notes, the two possible orders receive two different interpretations, parallel to the two different interpretations that the corresponding adverb again takes in the English glosses of (6a–b):

(6) a. k-wayn-ći-ko-putun
   1SUB-eat-REP-DESID (IMPF)
   ‘I want to eat again’

   (i) a. oku-yabil-iyor
        read-ABIL-PROG
        ‘he is being able to read’
   b. oku-yor ol-abil-ir
        read-PROG BE-ABIL-AOR
        ‘he might be reading’
   c. oku-yabil-iyor ol-abil-ir
        read-ABIL-PROG BE-ABIL-AOR
        ‘he might be being able to read’

   (ii) a. oku-yabil-miş ol-ur
        read-ABIL-PERF BE-AOR
        ‘he has been able to read’
   b. oku-miş ol-abil-ir
        read-PERF BE-ABIL-AOR
        ‘he might have read’
   c. oku-yabil-miş ol-abil-ir
        read-ABIL-PERF BE-ABIL-AOR
        ‘he might have been able to read’

In addition to -(y)Abil-, other suffixes in Turkish appear to occupy different positions depending on the particular interpretation they take. Among these: -sa (counterfactual, or conditional); -nis (perfect aspect, or evidential/inferential past); -Acak (future tense or prospective aspect).
b. *k-wayn-putun-éoqo-y
   1SUB-eat-DESID-REP-IMPF
   ‘Again I want to eat’

Watters does not give examples with -éoqo- both preceding and following the desiderative suffix, but does not say that it is impossible either. It could of course be that in certain cases, due to some independent factor, the two identical suffixes cannot appear simultaneously; a matter of some consequence, as it may lead to wrong conclusions. A clear case of this sort is provided by Japanese.

In Japanese, the inceptive aspect suffix -hajime- ‘begin’ can appear either preceding, or following, the passive suffix -rare-:  

(7) a. Ie-wa \textit{tate-hajime-rare-ta} \textit{1950-ni}  
    house-TOP build-begin-PASS-PAST in 1950  
    ‘the house was begun to build in 1950’

b. Ie-wa \textit{tate-rare-hajime-ta} \textit{1950-ni}  
    house-TOP build-PASS-begin-PAST in 1950  
    ‘the house began to be built in 1950’

The two -hajime- suffixes, however, cannot easily occur simultaneously (\textit{!* Ie-wa tate-hajime-rare-hajime-ta 1950-ni} - ASAKO HONYA, personal communication). Nonetheless, it would be rash to conclude from that that the inceptive aspect layer is freely ordered with respect to the voice layer.

There is some evidence from Romance that two inceptive aspect verbs (and layers) should be distinguished (one higher, and one lower, than voice). See CINQUE (1997). The higher one marks the beginning of a bounded or unbounded process at a point which is not the “natural beginning point” (cominciare ‘start’, in Italian); the lower one marks instead the beginning of a (bounded) process at its “natural beginning point” (iniziare ‘begin’, in Italian).

Given their specialization, the two cannot easily cooccur, although if one forces them to cooccur, in Italian, one of the two orders is definitely preferable (\textit{? Le case cominciarono ad esser iniziate a costruire molto in ritardo ‘the houses started to be begun to build very late’} \textit{vs. * Le case iniziarono ad esser cominciate a costruire molto in ritardo ‘the houses began to be started to build very late’}).

Now, some indirect evidence exists that the same distinction holds in Japanese.

As opposed to -hajime- (which appears to correspond to either type of inceptive aspect), the inceptive aspect suffix -das- appears to mark only the starting point of a process at a “non

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7 In the Japanese linguistic literature, morphemes like -hajime- are generally treated as aspectual verbs entering complex predicate formations with other verbs and suffixes. From the present perspective, there is no reason to treat them differently from other aspectual or tense suffixes. The sentences in (7) were provided by SHIGERU MIYAGAWA (personal communication).

8 The specialization of the two inceptive aspect verbs, and layers, appears to parallel the specialization of terminative aspect verbs, and layers, (like smettere ‘stop’), which mark a “non natural end point” of a bounded or unbounded process, and completive aspect verbs (like finire ‘finish’), which instead mark the “natural end point” of a bounded process. The former are also higher than voice, while the latter can be lower (see CINQUE 1997).
natural beginning point” (often with the added nuance of a sudden or unexpected start). It is thus a form specialized for the higher inceptive aspect head. Interestingly, as Mamoru Saito pointed out to me, -das- (differently from -hajime-) can be found following, but not preceding, the passive suffix -rare-; an expected fact if it only corresponds to the inceptive aspect head higher than voice. See (8 a–b):^9

(8) a. ?!*le-wa tate-das-are-ta
   house-TOP build-start-PASS-PAST
   ‘the house was started to build’
b. le-wa tate-rare-dasi-ta
   house-TOP build-PASS-start-PAST
   ‘the house started to be built’

The two orders of the suffix in (7) can thus be taken to correspond to two distinct (and specialized) inceptive aspect layers. The illusion of a variable ordering of -hajime- with respect to the voice suffix only arises, then, as a consequence of the fact that the same morpheme can express both the higher and the lower inceptive aspect head just as the morpheme -(y)Abil- in Turkish (or, for that matter, the modal ‘can’ in English) can express both the higher alethic possibility modal layer and the lower root ability/permission layer.

Cases of this sort, where a certain suffix expresses either of two (related) grammatical notions, coming to fill two different positions, are found language after language. I believe that many of the cases of variable morpheme ordering considered in Nedjalkov (1992) are amenable to such a reinterpretation. For example, it is tempting to take the variable ordering of the inceptive aspect suffix in Evenki ((9) = (3) of Nedjalkov 1992), and Aleut ((10) = (26) of Nedjalkov 1992) with respect to the desiderative modal suffix to arise from the double possibility open to the inceptive aspect heads seen above:^10

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9 Once again, the same pattern is found with adverbs. Whereas the adverb abitualmente ‘habitually’ can be interpreted either as a habitual adverb, higher than the modal adverb volentieri ‘willingly’ ((ii)a), or as a manner adverb, lower than volentieri ((ii)b) (also see (i)c, where both adverbs occur simultaneously), the adverb di solito is specialized for the higher habitual adverb slot ((ii)a), and cannot be used in the lower manner adverb position ((ii)b):

(i) a. Gianni vedeva abitualmente volentieri le stesse persone
   G. used to habitually willingly see the same persons
b. Gianni vedeva volentieri le stesse persone abitualmente
   G. used to willingly see the same persons habitually
c. ?Gianni vedeva abitualmente volentieri le stesse persone abitualmente
   G. habitually used to willingly see the same persons habitually

(ii) a. Gianni vedeva di solito volentieri le stesse persone
   G. used to normally willingly see the same persons
b. *Gianni vedeva volentieri le stesse persone di solito
   G. used to willingly see the same persons normally

10 In fact, as Nedjalkov (1992: 38–39) notes, Evenki allows a double occurrence of the inceptive aspect suffix. See (i) (I have glossed as INCEPT(ive) what Nedjalkov calls ‘inchoative’ as the form is translated with ‘begin’):

(i) Asli degli-ichi-t-te-Ø
   woman-pl fly-INECT(PROCESSIVE)-INECT-nonfut-3pl
   ‘women began to fly up’
(9) a. Nuŋan hereket in-mu-l-che-n
    she separately live-desid-INEPT-PAST
    ‘she began to want to live separately/on her own’

   b. Nuŋan kete-li sa-l-mu-d’a-cha-n
   he much-PROLATIVE know-INEPT-desid-IMPERF-PAST-3SG
   ‘he wanted to begin to know (about) many things’

(10) a. Ka-Kali-tu-ku-H
    eat-INEPT-desid-nonfut-3SG
    ‘he wants to begin to eat’

   b. Ka-tu-Kali-ku-H
    eat-desid-INEPT-nonfut-3SG
    ‘he began to want to eat’

Although one cannot be certain that all cases of variable ordering of mood, modality, tense, aspect and voice suffixes are due to the same suffix filling different, specialized, head positions in an invariant hierarchy, the above discussion of some such cases at least renders this eventuality plausible. If so, many inconsistencies in the relative order of grammatical heads among languages might turn out to be apparent only. One language could, for example, have an incipient morpheme corresponding only to the higher incipient aspect head, while another could have one corresponding only to the lower incipient aspect head, thus giving the impression of ordering its incipient aspect marker differently from the other language.

I want to conclude by mentioning one possible case of this sort. That involving the position of sentential negation.

Negation stands out as rather special among the various grammatical heads. For reasons of scope relative to other operators it can occur in numerous positions (filled, in some languages, simultaneously).

In Tuyuca, for example, the negative suffix -ri- “which negates only the information which occurs to its left” (Barnes 1994, 331), can appear either before or after certain other suffixes (acquiring different scopes):

(11) a. Bué-ruku-ri-wi
    study-constantly-NEG-EVIDENTIAL
    ‘I did not study constantly (i.e., I studied, but not constantly)’

   b. Bué-ri-ruku-wi
    study-NEG-constantly-EVIDENTIAL
    ‘I constantly did not study (i.e., I was constant in not studying)’

This suggests the existence of many potential positions for negation within the universal hierarchy of grammatical markers. And this, in turn, opens up the possibility that a language may differ from another as to the position which it selects as the canonical position for sentential negation. Indeed, sentential negation is higher than past tense in some languages.
(Malayalam, Mongolian), lower than past tense in other languages (Bangwa, Nigerian Pidgin), and lower still in others (Turkish, Piedmontese). Cf. Cinque (1999, chapter 5).11

The facts reviewed above, even if they do not show conclusively that all “mobile” suffixes are only apparently mobile, at least invite some caution in drawing conclusions from them which are against the assumption that grammatical markers come in a rigidly fixed order.

References


Bybee, Joan (1985): Morphology. Amsterdam, Benjamins


Kornfilt, Jaklin (1998): The Expression of Tense, Aspect and Mood in Turkish. Handout of a talk given at the University of Venice (12 November 1998)


11 Similar conclusions appear to hold of agreement suffixes (cf., again, Cinque 1999, chapter 5).