



Periphrasis is not failure of word building

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Handout

Poster

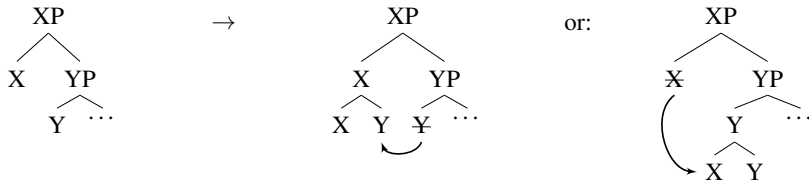
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1. Overview

Simple/synthetic vs. compound/periphrastic verbal forms

- (1) *Simple: Lexical V only*
played, plays
- (2) *Compound: Lexical V + auxiliary V*
was playing, has played

word building = formation of complex heads

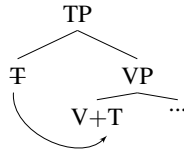


Head Movement (Travis 1984, Baker 1988), PF Merger/Lowering (Halle and Marantz 1993, Bobaljik 1995, Embick and Noyer 2001), Affix Hopping (Chomsky 1957), Conflation (Harley 2004), Amalgamation (Harizanov and Gribanova 2019), Generalized Head Movement (Arregi and Pietraszko 2018, to appear)

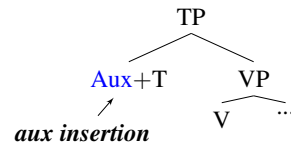
Common misconception

Periphrasis = Failure of word building (between the verb and inflection)

- (3) *Word building* → *Synthetic form*
- (4) *No word building* → *Periphrastic form*



Simple/synthetic tenses:
e.g. *played, plays*



Compound/periphrastic tenses:
e.g. *was playing, has played*

The basic idea: Auxiliary is inserted in stranded inflectional head.

(Embick 2000; for *do*-support: Chomsky 1957, Lasnik 1981, Halle and Marantz 1993, Bobaljik 1995.)

Claim: Periphrasis and word building are doubly dissociable

	French simple tense	Swahili simple tense	Turkish compound tense Type 1	Turkish compound tense Type 2
word building?	✓	✗	✗	✓
periphrasis?	✗	✗	✓	✓

Section 2 Synthesis with and without word building

Section 3 Periphrasis with and without word building

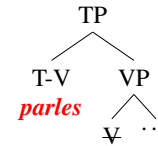
2. Synthesis with and without word building: Simple tenses in French and Swahili

- (5) *French*
Tu **parles** français.
you speak.PRS.2SG French
'You speak French.'

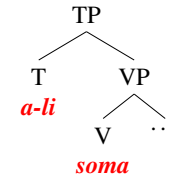
- (6) *Swahili*
A-li-soma
3sg-PST-read
'He read.'

In **French**, **V and T form a word** by (upward) head movement (Emonds 1978, Pollock 1989).
In **Swahili**, **V and T don't form a word** (Henderson 2003, 2013).

- (7) **French: V and T form a word**



- (8) **Swahili: V and T are separate words**



Evidence from movement to C:

- (9) *French: V and T move to C as a unit*
Parles_i -tu _i français?
speak.PRS.2SG -you French
'Do you speak French?'
- (10) *Swahili: T moves to C alone*
mchana **a-li_i** ye _i-**soma** kitabu
1girl 3SG-PST she read 7book
'the girl that read the book'

Synthesis with and without word building

	French simple tense	Swahili simple tense
word building?	✓	✗
periphrasis?	✗	✗

Importantly, Swahili (4, 8) is a simple tense, different from compound tenses with auxiliary V:

- (11) Tu **as** **parlé** français
you AUX speak French
'You have spoken French.'
- (12) **A-li-kuwa** **a-ki-soma**
3sg-PST-AUX 3sg-PROG-read
'He was reading.'

3. Periphrasis with and without word building

Turkish has simple and compound tense constructions (Kornfilt 1996):

- (13) **kal-dı-nız**
stay-PST-2PL
'you stayed'
- (14) **kal-dı i-se-niz**
stay-PST AUX-COND-2PL
'if you had stayed'

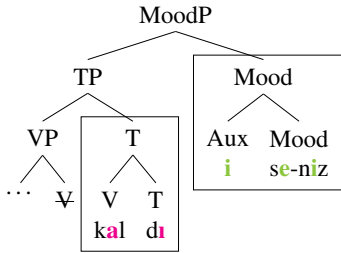
In compound forms, auxiliary and main verb can form a single word or two separate words:

- (15) **Type 1: Separate words** → two vowel harmony domains
kal-dı i-se-niz
stay-PST AUX-COND-2PL
'if you had stayed'
- (16) **Type 2: Single word** → one vowel harmony domain
kal-dı-y-sa-nız
stay-PST-AUX-COND-2PL
'if you had stayed'

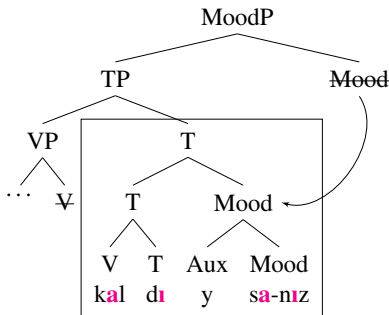
back vowels: a, ı
front vowels: e, i

Kornfilt 1996, Fenger 2018: The auxiliary optionally cliticizes/lowers to main verb:

- (17) **Type 1 compound tense: two separate words**



- (18) **Type 2 compound tense: a single word**



Periphrasis with and without word building

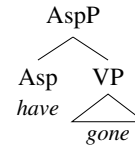
Turkish compound tense type 1 Turkish compound tense type 2

word building?	✗	✓
periphrasis?	✓	✓

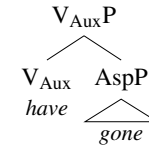
Appendix A: Against base-generation of auxiliaries

- (19) **Traditional view: auxiliaries are base-generated**
- as heads of certain functional projections (20) (i.a. Tenny 1987, Cinque 1998, Adger 2003) or
 - as an independent category (V_{Aux}) selecting certain functional projections (21) (an idea going back to Ross 1967, 1969 and adopted in a lot of subsequent syntactic literature.)

- (20) The functional head approach



- (21) The $V_{Aux}P$ approach



Incorrect prediction of the base-generation approaches

Due to base-generation, a given inflectional category (e.g. perfect Asp) should **consistently** appear with or without an auxiliary.

Bjorkman (2011) shows that this prediction is incorrect; in many languages, the co-occurrence of auxiliaries and inflections is **inconsistent** (*the overflow pattern* of auxiliary use).

The overflow pattern of auxiliary use (Ndebele)

- (22) *Future and perfect need an auxiliary to co-occur:*

U-za-**be** u-dl-ile
2sg-[FUT]-aux 2sg-eat-FV.[PERF]
'You will have eaten'.

- (23) *Perfect alone doesn't always need an auxiliary:*

U-Ø-dl-a
2sg-PRES-eat-FV.[PERF]
'You have eaten'.

- (24) *Future alone doesn't always need an auxiliary:*

U-za-dl-a
2sg-[FUT]-eat-FV
'You will eat'.

→ **The auxiliary in (22) is base-generated neither with future T nor with perfect Asp.**

Only the works cited in Appendix B predict the overflow pattern.

Appendix B: The right analysis of periphrasis

Observation: Compound-tense periphrasis is triggered by featural complexity.

For many languages, the generalization is: **one inflectional feature per verb**, no matter what inflection.^a

Infl ₁	Verb-Infl ₁	(simple form)
Infl ₁ Infl ₂	Aux-Infl ₁ Verb-Infl ₂	(periphrasis)
Infl ₁ Infl ₂ Infl ₃	Aux-Infl ₁ Aux-Infl ₂ Verb-Infl ₃	("double" periphrasis)

^aThis generalization relies on the assumption that featural contrasts in the inflectional domain can be privative. Thus, in some languages "present tense" is the absence of tense feature, etc. (See references below.)

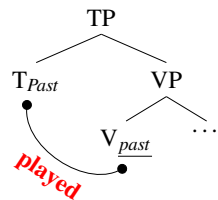
Claim

Periphrasis is regulated not by movement but by **feature transmission/agreement**.
(Cowper 2010, Bjorkman 2011, Arregi and Klecha 2015, Pietraszko 2017)

Agreement-based account of periphrasis

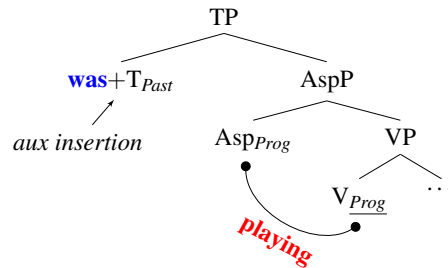
- T, Asp, Voice, etc. have Infl-features that must be licensed on a verb
- Verbs have an unvalued inflectional feature

(25) She played.



T values V → synthesis

(26) She was playing.



T fails to value V → Aux-insertion in T

Deriving the double dissociation

- Infl-agreement doesn't entail word building (see Swahili simple tense)
- Lack of Infl-agreement doesn't preclude word building (Turkish Type 2 compound tense)

References

- Adger, D. (2003) *Core syntax: A minimalist approach*, Oxford University Press.
- Arregi, K., & P. Klecha (2015) "The morphosemantics of past tense," in *Proceedings of the 45th conference of the North East Linguistics Society*.
- Arregi, K., & A. Pietraszko (to appear) "The ups and downs of head displacement." *Linguistic Inquiry*.

- Baker, M. (1988) *Incorporation*, University of Chicago Press.
- Bjorkman, B. (2011) *BE-ing default*, Doctoral dissertation, MIT.
- Bobaljik, J. (1995) *Morphosyntax*, Doctoral dissertation, MIT.
- Chomsky, N. (1957) *Syntactic Structures*, Mouton.
- Cinque, G. (1998) "'Restructuring' and the order of aspectual and root modal heads," *University of Venice, Working Papers in Linguistics* 8, 113–140.
- Cowper, E. (2010) "Where auxiliary verbs come from," in *Proceedings of the 2010 annual conference of the Canadian Linguistic Association*.
- Embick, D. (2000) "Features, Syntax, and Categories in the Latin Perfect," *Linguistic Inquiry* 31:2, 185–230.
- Embick, D., & R. Noyer (2001) "Movement operations after syntax," *LI* 32, 555–595.
- Emonds, J. (1978) "The verbal complex V'-V in French," *LI* 9, 151–175.
- Fenger, P. (2018) "Head movement: The view from failure. Affixation, periphrasis and clitics." ms. University of Connecticut.
- Halle, M., & A. Marantz (1993) "Distributed Morphology and the pieces of inflection," in K. Hale & S. J. Keyser, eds., *The view from Building 20*, MIT Press, 111–176.
- Harizanov, B., & V. Gribanova (2019) "Whither head movement?" *Natural Language and Linguistic Theory* 37, 461–522.
- Harley, H. (2004) "Merge, conflation, and head movement: The First Sister Principle revisited," in K. Moulton & M. Wolf, eds., *NELS 34: Proceedings of the thirty-fourth meeting of the North East Linguistic Society. Stony Brook University. Volume One*, Amherst, University of Massachusetts, Graduate Linguistic Student Association, 239–254.
- Henderson, B. (2013) "Agreement and person in anti-agreement," *Natural Language and Linguistic Theory* 31:2, 453–481.
- Henderson, B. M. (2003) "PF Evidence for Phases and Distributed Morphology," in K. Moulton & M. Wolf, eds., *Proceedings of the 34th Annual Meeting of the North East Linguistic Society*, Amherst, GLSA, 255–265.
- Kornfilt, J. (1996) "On copular clitic forms in Turkish," *ZAS Papers in Linguistics* 6:96–114.
- Lasnik, H. (1981) "Restricting the theory of transformations," in N. Hornstein & D. Lightfoot, eds., *Explanation in linguistics*, Longman, 152–173.
- Pietraszko, A. (2017) *Inflectional Dependencies: A study of complex verbal expressions in Ndebele*. Doctoral dissertation, The University of Chicago.
- Pollock, J.-Y. (1989) "Verb movement, Universal Grammar, and the structure of IP," *LI* 20, 365–424.
- Ross, J. R. (1967) *Constraints on variables in syntax*, Doctoral dissertation, Massachusetts Institute of Technology.
- Ross, J. R. (1969) "Auxiliaries as main verbs," *Studies in Philosophical Linguistics* 1:77–102. 1, 77–102.
- Tenny, C. L. (1987) *Grammaticalizing aspect and affectedness*, Doctoral dissertation, Massachusetts Institute of Technology.
- Travis, L. (1984) *Parameters and effects of word order variation*, Doctoral dissertation, MIT.