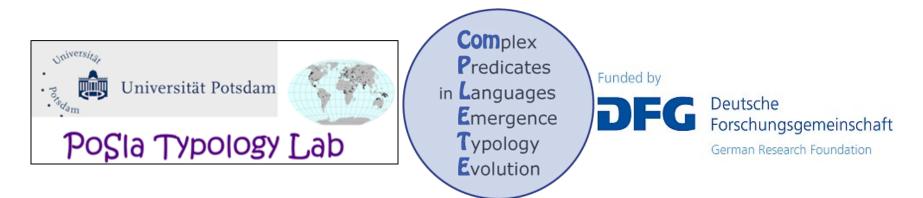
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Complex predicates as source constructions for non-canonical affixation

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- A verbal complex predicate (VCP) is a monoclausal construction with a single set of argument positions, consisting of at least two verbs (or "verb-like" items). These two verb-like items either
 - (i) both belong synchronically to the class of verbs, or
 - (ii) combine a lexical verb (L-verb) with a grammatical element (G-verb) which can also be used as a full verb in other contexts.

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- The components of a VCP start out as independent morphosyntactic and phonological words.
- In the process of grammaticalisation (or lexicalisation) the components of a VCP may undergo univerbation, i.e. become a single word (phonological, morphosyntactic, or both).

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Andersen 1987; Bowern 2008; Haspelmath 2011; Lehmann 2020

 Univerbation of complex predicates is one of the recognised and cross-linguistically recurrent pathways of development of affixes from lexical material.

Bybee et al. 1994; Anderson 2006: Ch. 6; Givón 2015

Central Tibetan (Sino-Tibetan > Bodic; DeLancey 2004: 1592)

- (1) a. kho phyin-byas bzhag-pa_red clause-chaining he go-NFIN put-PFV
 'He went and put it there.'
 - b. kho phyin bzhag-pa_red
 he go put-PFV
 'He has gone.'
 - c. kho phyin-zhag
 he go-INFR.PFV
 'He has left (I infer).'

verb+affix

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 he go put-PFV
 'He has gone.'
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verb+affix

- What has attracted comparatively less attention is the fate of affixal material occurring on the constituents of the VCP undergoing grammaticalisation and univerbation.
- Most of the discussion revolves around the notion of decategorialisation presupposing that the grammaticalising element (i.e. G-verb) loses all or most of its own inflectional potential and internal morphological structure.

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clause-chaining

VCP

verb+affix

Loss of inflection by the G-verb in univerbation

INFR – inferential, NFIN – nonfinite, PFV – perfective

- This is however clearly not always the case.
- The position and/or form of the morphological material arisen through univerbation of VCPs often goes back to the inflection of the original G-verb.
- This is unsurprising given the typologically recurrent pattern where it is the G-verb that is inflected in the VCP, the L-verb being invariable (e.g. a non-finite form).

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Kunuz (Nubian; Egypt, Sudan; Abdel-Hafiz 1988): 'give' > benefactive

- (2) a. buru ay-gi kita:p-ki de:s-s-u girl 1SG-OBJ book-OBJ give.1-PST-3SG
 'The girl gave me the book.' (Abdel-Hafiz 1988: 231)
 b. ay it-ti ka:-g tir-s-i
 - 1SG man-OBJ house-OBJ give.2/3-PST-1SG

'I gave the man the house.' (ibid.)

Person-based suppletion

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- (3) a. *id ay-gi ba:p-ki alle-de:s-s-u* man 1SG-OBJ door-OBJ repair-BEN.1-PST-3SG
 'The man repaired the door for me.' (ibid.: 114)
 - b. *it-ti b a:p-ki kop-tir-s-i* man-OBJ door-OBJ close-BEN.2/3-PST-1SG 'I closed the door for the man.' (ibid.)

Person-based suppletion retained in morphologisation

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- 1. Which of the components of the complex predicate bear inflectional affixes: L-verb, G-verb, both.
- Orientation of these affixes with respect to the stems of each of the relevant components: m-L, L-m; m-G, G-m
- 3. Order of L-verb and G-verb: L G, G L

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inflected verb	orientation	LG	GL
inflection on L	prefixes	m-L G	G m-L
	suffixes	L-m G	G L-m
inflection on G	prefixes	L m-G	m-G L
	suffixes	L G-m	G-m L
inflection both on G and L	prefixes	m-L m-G	m-G m-L
	suffixes	L-m G-m	G-m L-m
	pref-G, L-suff	L-m m-G	m-G L-m
	G-suff, pref-L	m-L G-m	G-m m-L

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	suffixes	LG-m	G-m L		
inflection both on G and L	prefixes	m-L m-G	m-G m-L		
	suffixes To check all the logically possible types for				
	pref-G, L-suf	actual occurrence can be subject of a			
	G-suff, pref-L	separate investigation.			

Straightforward cases

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Straightforward cases

• L(-m) G-m > L-suff-m

typologically apparently the most frequent situation
 Ukrainian (Danylenko 2011): 'take' > future

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	pref-G, L-suff	L-m m-G	m-G L-m
	G-suff, pref-L	m-L G-m	G-m m-L

• m-G (m)-L

apparently less common

- (5) a. *a-a-lí-kaana uku-boomba* 3SG-REM-PST-refuse INF-work 'S/he refused to work (long ago).'
 - b. *a-a-lí-kaanaa-boomba*3SG-REM-PST-NEG-work
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	G-suff, pref-L	m-LG-m	G-m m-L

• m_1 -L G- m_2 > m_1 -L-suff- m_2

West Circassian (North West Caucasian > Circassian, Russia; cf. Arkadiev, to appear): 'be joined' > frequentative

(5) a. *qə-s-a-?^we ze-pə-tə-в* CSL-1SG.IO-3PL.ERG-say REC.IO-LOC:front-stand-PST

- b. *qә-s-a-?^we–ze.pә.tә-к* CSL-1SG.IO-3PL.ERG-say–FREQ-PST 'they used to tell me' (AdCorp)
- c. qә-s-а-?^wа-в
 CSL-1SG.IO-3PL.ERG-say-PST
 'they told me'

• m_1 -L G- m_2 > m_1 -L-suff- m_2

West Circassian (North West Caucasian > Circassian, Russia; cf. Arkadiev, to appear): 'be joined' > frequentative

- (6) a. *qə-s-a-?^wa-u* CSL-1SG.IO-3PL.ERG-say-PST 'they told me'
 - b. *qә-s-а-?^we ze-pә-tә-в* CSL-1SG.IO-3PL.ERG-say REC.IO-LOC:front-stand-PST
 - c. qə-s-a-?^we—ze.pə.tə-ĸ CSL-1SG.IO-3PL.ERG-say—FREQ-PST 'they used to tell me' (AdCorp)

CSL – cislocative, ERG – ergative, IO – indirect object

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	pref-G, L-suff	L-m m-G	m-G L-m
	G-suff, pref-L	m-L G-m	G-m m-L

 Both L-verb and G-verb inflect for the same features and retain their affixes upon univerbation

> periodic multiple exponence (Harris 2017: 55-59, 113-150)

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• $L-m_1 G-m_1 > L-m_1$ -suff-m₁

Pengo (Dravidian > South Dravidian, India; Steever 1984) V-PST-SBJ + 'be'-NPST-SBJ > perfect

- (6) a. **huṛ-t-aŋ man-n-aŋ* see-PST-1SG be-NPST-1SG
 - b. *huṛ-t-aŋ-n-aŋ* see-PST-1SG-PRF-1SG 'l have seen.'

• $L-m_1 G-m_1 > L-m_1$ -suff-m₁

Pengo (Dravidian > South Dravidian, India; Steever 1984) V-PST-SBJ + 'be'-NPST-SBJ > perfect

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(7) a. **huṛ-t-aŋ man-n-aŋ* see-PST-1SG be-NPST-1SG

> o. *huṛ-t-aŋ-n-aŋ* see-PST-1SG-PRF-1SG 'l have seen.'

• $L-m_1 G-m_1 > L-m_1$ -suff-m₁

Pengo (Dravidian > South Dravidian, India; Steever 1984) V-PST-SBJ + 'be'-NPST-SBJ > perfect

(7) a. **huṛ-t-aŋ man-n-aŋ* see-PST-1SG be-NPST-1SG

>

b. *hur-t-an-an* see-PST-1SG-PRF-1SG 'I have seen.'

• m₁-G m₁-L > m₁-pref-m₁-L

Alur (Nilotic > Western Nilotic, Uganda; Ringe 1953: 28-29): 'be' > progressive

- (<mark>7) a. **à-bèdò à-marò* 1SG-be/PST 1SG-love/PST</mark>
 - b. à-bèd-à-marò
 1SG-PROG.PST-1SG-love/PST
 'I was loving.'

• m_1 -G m_1 -L > m_1 -pref- m_1 -L

Alur (Nilotic > Western Nilotic, Uganda; Ringe 1953: 28-29): 'be' > progressive

- (8) a. *à-bèdò à-marò 1SG-be/PST 1SG-love/PST
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• $m_1 - L m_1 - G > m_1 - L - m_1 - suff$

Bezhta (Nakh-Daghestanian > Tsezic, Russia; Khalilova 2022: 93): 'die' > completive

(8) a. *kid biλo-ва j-ohda-jo* girl house-APUD F-work-PST 'The girl worked at home.'

> b. *kid biλo-ва j-ohda-j-uвo-jo* girl house-APUD F-work-F-die-PST 'The girl finished working at home.'

• m_1 -L m_1 -G > m_1 -L- m_1 -suff

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 - b. *kid biλo-ва j-ohda-j-uвo-jo* girl house-APUD F-work-F-die-PST 'The girl finished working at home.'

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> b. *kid biхо-ва* girl house-APUD F-work-F-die-PST 'The girl finished working at home.'

> > prefix

APUD – apudessive case, F – feminine

• m_1 -L m_1 -G > m_1 -L- m_1 -suff

Bezhta (Nakh-Daghestanian > Tsezic, Russia; Khalilova 2022: 93): 'die' > completive

prefix?

(9) a. *kid biҳ̃o-ва* girl house-APUD F-work-PST 'The girl worked/at home.'

prefix

b. kid biλo-ва girl house-APUD F-work-F-die-PST 'The girl finished working at home.'

APUD – apudessive case, F – feminine

• m_1 -L m_1 -G > m_1 -L- m_1 -suff

Bezhta (Nakh-Daghestanian > Tsezic, Russia; Khalilova 2022: 93): 'die' > completive

suffix

(9) a. *kid biλo-ва* girl house-APUD F-work-PST 'The girl worked/at home.'

> b. *kid biǎo-ва* girl house-APUD F-work-F-CMPL-PST 'The girl finished working at home.'

APUD – apudessive case, CMPL – completive, F – feminine

prefix

- Affixalisation in counterposition (Stump 2022: 26 et passim) yields both multiple exponence and ambifixation.
- Ambifixes: affixes able to occur both as prefixes and as suffixes depending on some condition.
- "Canonical" ambifixation requires that affixes occur either as prefixes or as suffixes, i.e. without multiple exponence.
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- Affixalisation in counterposition (Stump 2022: 26 et passim) yields both multiple exponence and ambifixation.
- Ambifixes: affixes able to occur both as prefixes and as suffixes depending on some condition.
- "Canonical" ambifixation requires that affixes occur either as prefixes or as suffixes, i.e. without multiple exponence.
- Such cases also arise through univerbation of VCPs.

inflected verb	orientation	LG	GL
inflection on L	prefixes	m-L G	G m-L
	suffixes	L-m G	G L-m
inflection on G	prefixes	Lm-G	m-G L
	suffixes	L G-m	G-m L
inflection both on G and L	prefixes	m-L m-G	m-G m-L
	suffixes	L-m G-m	G-m L-m
	pref-G, L-suff	L-m m-G	m-G L-m
	G-suff, pref-L	m-L G-m	G-m m-L

inflected verb	orientation	LG	GL
inflection on L	prefixes	m-L G	G m-L
	suffixes	L-m G	G L-m
inflection on G	prefixes	L m-G	m-G L
	suffixes	LG-m	G-m L
inflection both on G and L	prefixes	m-L m-G	m-G m-L
	suffixes	L-m G-m	G-m L-m
	pref-G, L-suff	L-m m-G	m-G L-m
	G-suff, pref-L	m-L G-m	G-m m-L

Fairly well-attested across the world

inflected verb	orientation	LG	GL
inflection on L	prefixes	m-L G	G m-L
	suffixes	L-m G	G L-m
inflection on G	prefixes	Lm-G	m-G L
	suffixes	LG-m	G-m L
inflection both on G and L	prefixes	m-L m-G	m-G m-L
	suffixes	L-m G-m	G-m L-m
	pref-G, L-suff	L-m m-G	m-G L-m
	G-suff, pref-L	m-L G-m	G-m m-L

Clear cases not yet in my database

• m-L vs. L m-G > L-m-suff: morphological split

Tabasaran (Nakh-Daghestanian > Lezgic; Russia, Azerbaijan; Magometov 1965: 290-310; Babaliyeva 2023: 33-34):

- (10) a. *d-ap'-nu* PRF-do-PFV.CV 'having done
- a.' *dar-ap'-i* NEG-do-CVB 'not having done'
- b. *ap'-nu-za* do-PFV.PST-1SG **'I did.'**
- b'. *ap'-un-dar-za* do-PVF.PST-NEG-1SG **'I did not do.'** (Dyubek variety, Magometoy 1965: 305.

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- (10) a. wa-suf-ma
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 PROG-IMPF-talk_to-1/2SG.O:TR-1SG.S
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 - c. (wa-)pupw-wa.r (1/2SG.O-)beat-1/2SG.O.TR[1/3SG.S] 'I beat you.' (Honeyman 2016: 443, 191)

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	object prefixes		'show'		object suffixes	
	Sg	PI	Sg	PI	Sg	PI
1/2	wa-	ma-	was	mas	- <mark>(w)</mark> an/r	- <mark>ma</mark> n/r
3	zero		as	nis	-en/r	- <mark>ni</mark> n(ta)

- m-L vs. L m-G > L-m-suff: lexical split
- Oppositions between a closed class of simplex verbs with object prefixes and a potentially open class of complex verbs with object suffixes originating from compounds or serialisation is well-attested across the Papuan languages of New Guinea (Suter 2012, Windschuttel 2018).
- Other potentially similar cases:
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• VCPs constitute not only a frequent source of grammatical affixes, but also an important type of environment where such non-canonical and still rarely discussed morphological phenomena as multiple exponence and ambifixation arise.

- Univerbation of VCPs is a ubiquitous process occurring in many language families all over the world:
 - it is unsurprising that both multiple exponence and ambifixation are attested in many unrelated languages across the world (Harris 2017; Stump 2022; Arkadiev 2024);
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• Typologically rare structures are those that

- arise from less frequently occurring source constructions;
- develop through several steps;
- more frequently undergo leveling or simplification.

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- Does not seem to be an extremely common situation.
- Multiple exponence is subject to "externalisation of inflection" and other processes leading to obliteration or leveling.

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- Ambifixation can only emerge from constructions involving "counterposition" (e.g. postposed G-verb with prefixes).
- Moreover, two further conditions have to be satisfied:
 - the original pattern of affixation (e.g. verbs with prefixes) have to remain in the language;
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- In ambifixation, it is not infrequently the case that prefixation and suffixation are distributed unevenly, one of them being a restricted and another a productive pattern (e.g. in many languages of New Guinea, Windschuttel 2018).
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- both multiple exponence and ambifixation are typologically well-attested phenomena;
- they emerge from a variety of sources, a prominent one being common to both, i.e. univerbation of VCPs;
- at least in some languages, both of them show a certain degree of diachronic resilience;
- their study is important for morphological typology, both synchronic and diachronic.

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