Excorporation

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Synthetic verb structure in Gunwinyguan languages

(1) Pro- (Coverb-)Verb-TAM
ŋa- pət- pu -wa
1MIN- climb- HIT -PP
'I climbed up.' (Rembarrnga)

Excorporation constructions involve stem displacement

(2) Ngalakgan

a. ŋu-**wulup**-miɲ
1MIN-bathe-PP
'I bathed.'

b. **wulup** ŋu-miɲ
bathe 1MIN-PP
'I bathed.'

(3) Rembarrnga

a. jara-jappaʔ-**ɻumʔ**-miɲ
1AUG-UA-sleep-PP
'We both slept.'

b. **ɻumʔ** jara-jappaʔ-maɲ
sleep 1AUG-UA-GO.PP
'We both fell asleep.'

(4) Jawoyn

a. puɳ-**ʈum-towk**-maj
3NSG-eye-burst-PP
'Their eyes burst.'

b. **tum-towk** puɲ-cu-ŋaj
eye-burst 3NSG-do-PC
'Their eyes burst.'

(5) Dalabon

a. ka-ʔ-lŋ-**walk**-ka-r-iɲ
3SG-R-SEQ-hide-TAKE-RR-PP
'Then he hid himself.'

b. **walk** ka-ʔ-lŋ-ka-r-iɲ
hide 3SG-R-SEQ-TAKE-RR-PP
'Then he hid himself.'

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Excorporated stems are purely lexical (i.e., no meaningless excorporants) and always occur to the left. They can be either simplex (verb root only) or complex (incorporated noun plus verb root). In Jawoyn it is possible to excorporate closed class finite verbs, which is predicted to be impossible from previous research (e.g., Bundgaard-Nielsen & Baker, 2020):

(6) a. pu-**ma**-ŋaj
3NSG>3SG-get-PC
'They got (nailfish).'

b. **maʔ** puɲ-cu-ŋaj
get 3NSG>3SG-do-PC
'They got (their spears).'

(7) a. ponpu-**jama**-ŋaj
3NSG>3NSG-spear-PC
'They speared them.'

b. **jamaʔ** ponpuɲ-cu-ŋaj
spear 3NSG>3NSG-do-PC
'They speared them.'

These examples indicate speaker awareness of juncture between finite verb and TAM suffixes, despite this boundary supposedly being invisible (contra Baker, 2008).

Ordering restrictions on components of construction

Word order is syntactically free in Gunwinyguan languages, but elements of excorporation constructions not freely manipulable. Only one order is attested:

(8) Ngalakgan

a. wurppaɻ puru-miɲ
gather 3AUG-PP
'They gathered.'

b. *puru-miɲ wurppaɻ
3AUG-PP gather
Intended: 'They gathered.'

c. *wurppaɻ kelk-kaʔ puru-miɲ
gather river.bank-LOC 3AUG-PP
Intended: 'They gathered on the river bank.'

Tight dependency could be taken as a cue to wordhood, and strict ordering is assumed only to apply within the word domain in these languages. However, in all languages the construction consists of what are clearly two independent words, and thus they seem more like phrases. (In Ngalakgan, however, the auxiliary is not a word on its own and instead is constrained to occur with some verb stem). Yet, these languages lack phrasal syntax in all other parts of the grammar, so do we really want to classify them as 'phrases'?

Suppletive patterns in Rembarrnga and Jawoyn

All auxiliary constituents in Rembarrnga involve /maɲ/ 'go.PP' (intransitive excorporation) or /ka-/ 'take' (transitive excorporation) instead of the ordinary past punctual suffix /-miɲ/:

(9) a. ŋa-ŋalʔ-**miɲ**.
1MIN-climb-PP
'I climbed up.'

b. ŋalʔ ŋa-**maɲ**.
climb 1MIN-PP
'I climbed up.'

(10) a. par-ŋorow-**miɲ**
3AUG>3MIN-break.limbs-PP
'They break its limbs.'

b. ŋorow ka-**ka-n**
break.limbs 3MIN>3MIN-TAKE-PR
'He breaks its limbs.'

Jawoyn always takes /cu-/ 'say/do' verb in auxiliary; suppletion also distinguishes synthetic from excorporation when prefixes are zero:

(11) a. pum-poroʈ-**maŋaj**
3NSG>3SG-tie.up-PC
'They tied it.'

b. poroʈ puɲ-**cu-ŋaj**
tie 3NSG>3SG-do-PC
'They tied it.'

(12) a. Ø-peʈ-**maɲ**
3SG>3SG-crush-PP
'He crushed him.'

b. peʈ Ø-**cu-j**
crush 3SG>3SG-do-PP
'He crushed him.'

Meaning, event structure, and usage as ideophones

Excorporation expresses 'suddenness' or immediacy, has effects inception or inchoation effects on non-atomic predicates, forcing them into change of state meanings:

(13) Ngalakgan

a. ŋu-**poɭʔ**-miɲ.
1MIN-carry-PP
'I was carrying it.'

b. **poɭʔ** ŋu-miɲ.
carry 1MIN-PP
'I started carrying it.'

(14) Rembarrnga

a. jara-jappaʔ-**ɻumʔ**-miɲ
1AUG-UA-sleep-PP
'We both slept.'

b. **ɻumʔ** jara-jappaʔ-maɲ
sleep 1AUG-UA-GO.PP
'We both fell asleep.'

(15) Dalabon

a. ka-ʔ-**curʔpu**-mu
3SG-R-fall-PR
'(The water) is pouring.'

b. **curʔcurʔ** ka-ʔ-lŋ-ka-ŋ
blood.drip.out 3SG-R-SEQ-TAKE-PP
'And his blood came bleeding [=squirted] out!'

Change of state / instantaneity very common with ideophone constructions, such as in Wubuy (Heath, 1980, p. 174; Heath, 1976, p. 737) or Amharic (Amberber et al., 2007, p. 217), in the latter of which it is possible to derive ideophones from finite verbs:

(16) Wubuy

a. ni-**jaɭ̱t**-iɲ.
3SG-go.past-PP
'He went past.'

b. **caɭ̱k!** ni-**jaɭ̱t**-iɲ.
go.past 3SG-go.past-PP
'He went past (all of a sudden).'

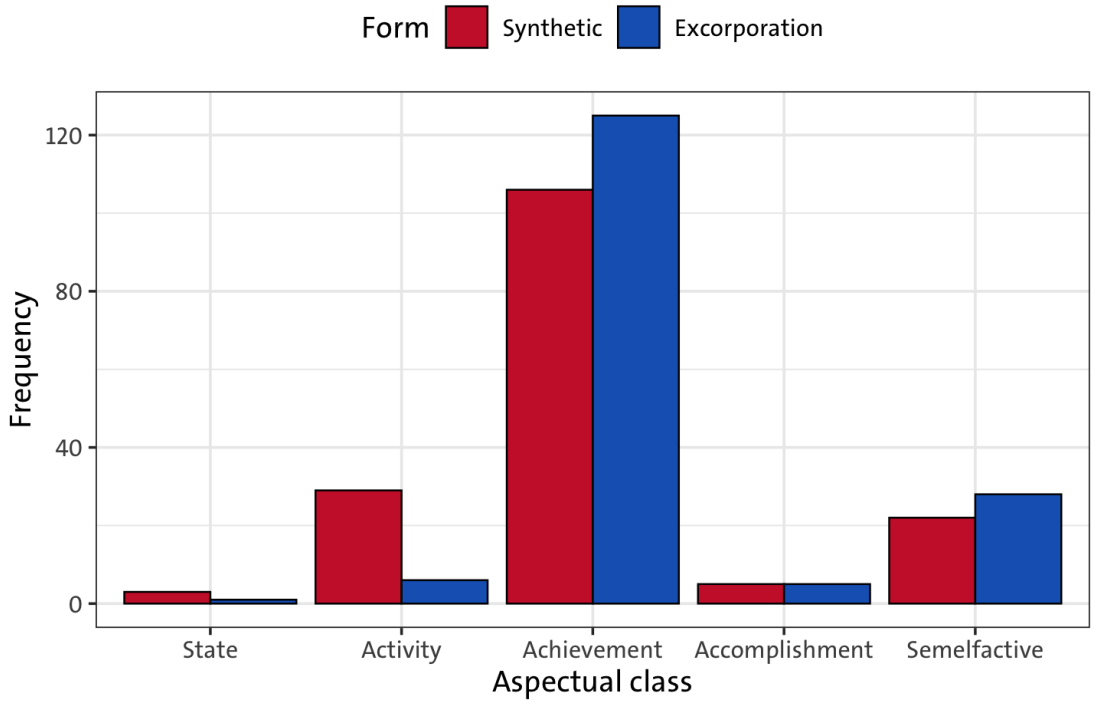
(17) Amharic

a. t'ərmus-u tə-**səbbər**-ə
bottle-DEF INTR-break.PFV-3M
'The bottle broke.'

b. t'ərmus-u **sɨbbɨrr** al-ə
bottle-DEF break say.PFV-3M
'The bottle broke [suddenly].'

Excorporable predicates tend to be atomic ones (achievements/semelfactives), and excorporation constructions almost always have atomic meaning (Figure 1). Preference for atomic events suggests relation to immediacy (like Wubuy), and combined with prosodic realisation (focus intonation) and textual distribution (notable events in narratives), excorporation understood as having a dramaturgic function of making the narrative more vivid.

Figure 1: Aspectual classes of 165 excorporated predicates vs. their synthetic forms



Utility of a Construction Grammar analysis

Lots of problems for theories of morphology and grammar in general:

- Bound roots occurring word-externally, variable morphotactics?
- Manipulation of word-internal constituents?
- Awareness of ROOT-level junctures (in Jawoyn)?
- Prefix+suffix constituent in Ngalakgan?
- Productive (used with many roots), but non-compositional?
- Simultaneous interaction of stem position alternation, suppletion (Rembarrnga & Jawoyn), and additional semantic modification?
- Word-internal structure sensitive to discourse pressures? What about Lexical Integrity?

Relational Morphology (Jackendoff & Audring, 2020) offers theoretical framework that captures all of the above while also maintaining psychological plausibility. RM allows us to capture the generalisation that speakers command two structures for any verbal predicate, one where the stem occurs between the agreement prefix and TAM suffix, and one where it occurs before both:

(18) Synthetic–excorporation alternation of *worowk* 'gallop' (Ngalakgan)

a. Semantics: $[\text{PP}([\text{GALLOP}(3\text{AUG}_{1,2})]_3)]_5$
Morphosyntax: $\{\text{V}_3, \text{PP}_4, 3_1, \text{AUG}_2\}_5$
Phonology: /puru$_{1,2}$ worowk$_3$ miɲ$_4$ /$_5$

b. Semantics: $[\text{EX}([\text{PP}([\text{GALLOP}(3\text{AUG}_{1,2})]_3)]_5)]_6$
Morphosyntax: $\{\text{V}_3, \text{PP}_4, 3_1, \text{AUG}_2\}_{5,6}$
Phonology: /worowk$_3$ puru$_{1,2}$ miɲ$_4$ /$_6$

The formalism of RM therefore allows explicit relations between items in the lexicon to be specified in lexical entries, which is necessary to explain patterns of suppletion in Rembarrnga (and Jawoyn), where an external form is recruited to host the inflectional material associated with the excorporated stem:

(19) Synthetic excorporation alternation of *ŋalʔ* 'climb' (Rembarrnga)

a. Semantics: $[\text{PP}([\text{GO}(1\text{MIN}_{7,8})]_9)]_{11}$
Morphosyntax: $\{\text{V}_9, \text{PP}_{10}, 1_7, \text{MIN}_8\}_{11}$
Phonology: /ŋa$_{7,8}$ maɲ$_{9,10}$ /$_{11}$

b. Semantics: $[\text{PP}([\text{CLIMB}(1\text{MIN}_{7,8})]_{12})]_{13}$
Morphosyntax: $\{\text{V}_{12}, \text{PP}_{10}, 1_7, \text{MIN}_8\}_{13}$
Phonology: /ŋa$_{1,2}$ ŋalʔ$_{12}$ *miɲ$_{10}$* /$_{13}$

c. Semantics: $[\text{EX}([\text{PP}([\text{CLIMB}(\text{1MIN}_{7,8})]_{12})]_{13})]_{14}$
Morphosyntax: $\{\text{V}_3, \text{PP}_{10}, 1_7, \text{MIN}_8\}_{13,14}$
Phonology: $/\text{ŋal}ʔ_{12}\ \text{ŋa}_{7,8}\ {}^{*}\text{maɲ}_{9,10}{}^{*}/_{14}$

The upshot of all this is that RM (and all Construction Grammars) do not require an explicit distinction between words and phrases, reflecting the ambiguity of excorporation constructions, and RM can also attribute the meaning of excorporation to the construction *as a whole*, without assuming any distinct kind of representation. This likely matches what speakers know of these constructions, which is that there are two options for expressing a predicate—a synthetic option and an excorporated option—where the excorporated form has an additional meaning.

On Generative approaches, these two structures require vastly different modes of storage and production. Since excorporation is semantically non-compositional, it would need to be stored and learned on a per-item basis, while the synthetic form is compositional and therefore could be computed on-line. I reject this proposal, and argue instead that they can both be stored *and* computed using the mechanisms of Construction Grammar, which permit construction by analogy and schematisation of semantically non-compositional forms:

(20) Synthetic–excorporation alternation schema (Ngalakgan)

a. Semantics: $[\text{PP}([\text{PRED}(\text{X}_\alpha)]_\beta)]_x$
Morphosyntax: $\{\text{V}_\beta, \text{PP}_4, \text{PRO}_\alpha\}_x$
Phonology: $/\ldots_\alpha \ldots_\beta \text{miɲ}_4/_x$

b. Semantics: $[\text{EX}([\text{PP}([\text{PRED}(\text{X}_\alpha)]_\beta)]_x)]_y$
Morphosyntax: $\{\text{V}_\beta, \text{PP}_4, \text{PRO}_\alpha\}_{x,y}$
Phonology: $/\ldots_\beta \ldots_\alpha \text{miɲ}_4/_y$

This approach allows that speakers, with knowledge of a synthetic form, can produce an excorporated form on-line. This approach also denies a derivational relationship, and instead proposes two parallel structures, avoiding the need to posit questionable morphotactic or morphological rules to account for the positional alternation of the stem.

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