Excorporation

Geordie Kidd*

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Synthetic verb structure in Gunwinyguan languages

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

Excorporation constructions involve stem displacement

- (2) Ngalakgan
 - a. ŋu-wulup-min ımın-bathe-pp 'I bathed.'
 - b. wulup ŋu-min bathe 1MIN-PP 'I bathed.'
- (4) Jawoyn
 - a. pun-**tum-towk**-maj 3NSG-eye-burst-PC 'Their eyes burst.'
 - b. **tum-towk** pun-cu-ŋaj eye-burst 3NSG-do-PC 'Their eyes burst.'

- (3) Rembarrnga
 - a. jara-jappa?-**.jum?**-min 1AUG-UA-sleep-PP 'We both slept.'
 - b. **.um?** jara-jappa?-man sleep 1AUG-UA-GO.PP 'We both fell asleep.'
- (5) Dalabon
 - a. ka-?-lŋ-walk-ka-r-iŋ 3SG-R-SEQ-hide-TAKE-RR-PP 'Then he hid himself.'
 - b. walk ka-?-lŋ-ka-r-iŋ 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 (7) a. ponpu-jama-ŋaj 3NSG>3SG-get-PC 3NSG>3NSG-spear-PC 'They got (nailfish).' 'They speared them.'

b. ma? pun-cu-ŋaj b. jama? ponpun-cu-ŋaj spear 3NSG>3NSG-do-PC spear 3NSG>3NSG-do-PC

These examples indicate speaker awareness of the juncture between finite verb and TAM suffixes, despite this boundary supposedly having no salience to speakers (contra Baker, 2008).

'They speared them.'

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. wurppat puru-min c. *wurppat kelk-ka? puru-min gather 3AUG-PP gather river.bank-loc 3AUG-PP 'They gathered.' Intended: 'They gathered on the river bank.'
 - b. *puru-min wurppa. 3AUG-PP gather Intended: 'They gathered.'

'They got (their spears).'

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 /map/ 'go.pp' (intransitive excorporation) or /ka-/ 'take' (transitive excorporation) instead of the ordinary past punctual suffix /-mip/:

- (9) a. ŋa-ŋalʔ-**miŋ**.

 1MIN-climb-PP

 'I climbed up.'
 - b. ŋal? ŋa-**maŋ**. climb 1MIN-PP 'I climbed up.'
- (10) a. par-ŋorow-**min**3AUG>3MIN-break.limbs-PP
 'They break its limbs.'
 - b. norow 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-poroţ-**maŋaj** 3NSG>3SG-tie.up-PC 'They tied it.'
 - b. porot pun-cu-naj tie 3NSG>3SG-do-PC 'They tied it.'
- (12) a. pon-wit-**man** 3SG>3NSG-whistle-PP 'It whistled at them.'
 - b. wit! pon-cu-j
 whistle 3SG>3NSG-do-PP
 'It whistled at them!.'

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-**po[?**-miɲ.

 1MIN-carry-PP

 'I was carrying it.'
 - b. **pol?** nu-min. carry 1MIN-PP
 'I started carrying it.'
- (14) Rembarrnga
 - a. jara-jappa?-**.um?**-min 1AUG-UA-sleep-PP'We both slept.'

- (15) Dalabon
 - a. ka-?-cur?pu-mu3SG-R-pour-PR'(The water) is pouring.'
 - b. cur?cur? ka-?-lŋ-ka-ŋ
 squirt 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

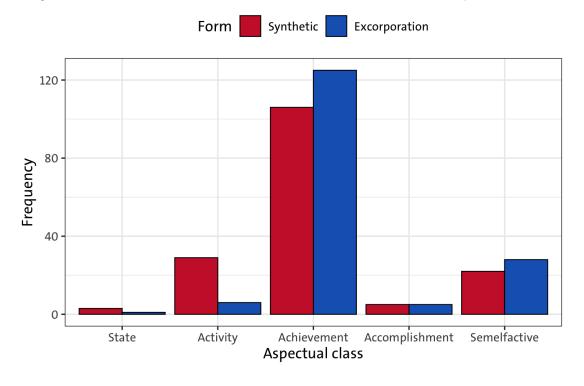
- a. ni-jalt-in. 3SG-go.past-pp 'He went past.'
- b. calk! ni-jalt-ip.
 go.past 3SG-go.past-PP
 'He went past (all of a sudden).'

(17) Amharic

- a. t'ərmus-u tə-**səbbər**-ə bottle-DEF INTR-break.РFV-3м 'The bottle broke.'
- b. t'ərmus-u **sibbirr** 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: $[PP([GALLOP(3AUG_{1,2})]_3)]_5$

Morphosyntax: $\{V_3, PP_4, 3_1, AUG_2\}_5$ Phonology: /puru_{1,2} worowk₃ mip₄/₅

b. Semantics: $[EX([PP([GALLOP(3AUG_{1,2})]_3)]_5)]_6$

Morphosyntax: $\{V_3, PP_4, 3_1, AUG_2\}_{5,6}$ Phonology: /worowk₃ puru_{1,2} mip₄/₆

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 express the grammatical categories normally encoded on the (excorporated) stem:

(19) Synthetic excorporation alternation of ηal ? 'climb' (Rembarrnga)

a. Semantics: $[PP([GO(1MIN_{7.8})]_9)]_{11}$

 $Morphosyntax: \quad \left\{V_9, \mathtt{PP}_{10}, 1_7, \mathtt{MIN}_8 \right\}_{ll}$

Phonology: $/\eta a_{7,8} \, man_{9,10} /_{11}$

b. Semantics: $[PP([CLIMB(1MIN_{7.8})]_{12})]_{13}$

 $\begin{array}{ll} \text{Morphosyntax:} & \{V_{12}, \text{pp}_{10}, 1_7, \text{MIN}_8 \,\}_{13} \\ \text{Phonology:} & / \eta a_{1,2} \, \eta a l ?_{12} \, {}^* \text{mip}_{10} \, {}^* /_{13} \end{array}$

c. Semantics: $[EX([PP([CLIMB(1MIN_{7.8})]_{12})]_{13})]_{14}$

$$\begin{split} & \text{Morphosyntax:} & \left\{ \text{V}_{3}, \text{PP}_{10}, \text{1}_{7}, \text{MIN}_{8} \right. \right\}_{13,14} \\ & \text{Phonology:} & \left. / \text{nal} \text{?}_{12} \right. \text{na}_{7,8} \left. * \text{man}_{9,10} \right. \star \left. / \right._{14} \end{split}$$

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: $[PP([PRED(X_{\alpha})]_{\beta})]_{x}$

Morphosyntax: $\{V_{\beta}, PP_4, PRO_{\alpha}\}_x$

Phonology: $/..._{\alpha}..._{\beta} \min_{4}/_{x}$

b. Semantics: $[EX([PP([PRED(X_{\alpha})]_{\beta})]_{x})]_{y}$

Morphosyntax: $\{V_{\beta}, PP_{4}, PRO_{\alpha}\}_{x,y}$ Phonology: $/..._{\beta} ..._{\alpha} min_{4}/_{y}$

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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