In support of post-syntactic head movement: loanword accommodation in Kunbarlang verb phrases

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BACKGROUND: Since the early 1990s the verb phrase is generally thought to be built from acategorial roots which are categorised via Merge with functional projections, such as v (see e.g. Marantz 1997). One of the questions about this architecture concerns the nature of head movement: is it syntactic (e.g. Travis 1984) or post-syntactic (e.g. Platzack 2013). In this paper we adduce novel data to argue that it cannot be reduced just to the former option (contra e.g. Arregi & Pietraszko 2020), but that post-syntactic movement is necessary.

Kunbarlang, an endangered polysynthetic Gunwinyguan language from northern Australia, has three formally different ways of forming a verb phrase with two overt predicative elements: (i) the **complex stem** consists of a *prepound* and a *thematic*, which determines the stem's formal aspects, such as its conjugation class. Found throughout the Gunwinyguan family (Alpher, Evans & Harvey 2003, henceforth AEH), it is illustrated in (1a); (ii) the **coverb construction**, in which a predicative element (*coverb*) encliticises to an inflected light verb, illustrated in (1b); (iii) the **preverb construction**, in which an English verb combines with the light verb -*ngundje* 'say/do', occurring freely to its left or right, as illustrated in (1c).

(1) Kunbarlang (original field work)

    a.   Kikka kadda-**kel.kidanj** ngob.
           they   3PL.NF-fear.go.PST all
           'They fled (in fear).'

    b.   Ka-**ka**=**kulkkulk** munguy.
           3SG.NF-go.NP=run a_lot
           'S/he goes running always/every day.'

    c.   **Heading** ngarrk-**ngunda** Kurridja.
           head   1.INCL.NF-do.PST K
           'We were heading to Kurridja.'

PROBLEM: The three constructions look very different on the surface, although they have the same function of forming a 'verbal predicate'. A standard analysis of verbal predicate formation, such as Hale & Keyser 2002, involves either head movement of the verbal head V to the functional v, or Conflation, i.e. direct Merge of some root into v (see also Haugen 2009). In this binary system, however, it is hard to capture the three-way distinction found in the Kunbarlang VP. What is even more puzzling is that the choice between the three constructions needs to be motivated. Hence, our second question is, how many structures underlie the three-part typology of the Kunbarlang VP. In providing an answer to it, we address the head movement question.

ANALYSIS: We offer a uniform analysis for all three constructions, which retains the underlying intuition of the standard analysis of complex predicates. However, the parameters of the constructional variation presumably pertain to phonology, and we argue that in this present case, the perceived movement must

occur post-syntactically. In each of the discussed constructions, we identify the thematic of the complex stem in (1a) and the light verb in the other two constructions with v, and take the other predicative element (prepound/coverb/preverb; henceforth Particle) to be a Root that merges under v and is thus categorised. We defend the simplest hypothesis that the three constructions at hand are syntactically indistinguishable and have the identical structure of $[_{vP} \ldots [_{v'} v [_{\sqrt{P}} \ldots \sqrt{}]]]$.

We maintain that the differences in the resulting surface structure stem from the phonological behaviour of the Particle, which, in turn, is determined by the degree of nativisation of the Particle. The three constructions correspond to three groups of the Particle: inherited proto-Gunwinyguan (pGn) roots, nativised loans, and novel loans. The deeper a root is integrated within the lexicon, the tighter its nexus within the verb phrase.

The weakest integration is of the *ad hoc* English loans, which are the only Particles found in the preverb construction: the surface morphophonological form of *heading* in (1c) disqualifies it from participating in the remaining two structures. The tightest integration is with the inherited roots such as *kel* 'fear' in (1a), which appear fully integrated within the polysynthetic verbal word *kaddakelkidanj* 'they fled in fear'. The mid level of integration is found with the roots that appear to be loanwords, but have been nativised, such as *kulkkulk* 'run' in the coverb construction. These items have cognates in other Gunwinyguan languages and also in Mawng, a neighbouring Iwaidjan language. Similarly to Kunbarlang, Mawng is the only language in its family where there are coverb constructions, and it appears most likely that the two languages have developed the construction through their close contact. Furthermore, many of these coverb items have cognate prepounds in complex stems in other Gunwinyguan languages (esp. Bininj Kunwok and Dalabon), and it is these items that combine with the verbaliser thematic ($<^* ma$ pGn; AEH: pp. 329–33), rather than with one of the host of light verb thematics. The cognates of the items that we identify as pGn inherited roots serve as prepounds with a wide range of thematics. Crucially, none of this morphophonological information is available during the syntactic computation, as it only becomes available following lexical insertion, once the syntactic computation has run its course.

Nativisation matters: We find further support for the claim that predicate formation is sensitive to the source of the lexical item in Germanic languages. It appears that while the inherited Germanic verbs are free to combine with particles (as in English) or prefixes (as in German or Dutch), the Latinate or Greek loan words cannot form such particle verbs. The pair (2) from Dutch illustrates: *bellen* 'to call', a Germanic verb, can take a prefix *op-*, but *telefoneren* 'to call', of Greek origin, cannot, despite the similarity in meaning (and despite its ability to take on inflectional morphology).

(2) a.   Ik   heb   hem   gebeld/getelefoneerd.
          I   have.1SG he.ACC call.PTCP

          'I called him.'

     b.   Ik   heb   hem   opgebeld/*opgetelefoneerd.
          I   have.1SG he.ACC call.PTCP

          'I called him.'

In the talk we elaborate on this, showing that the Germanic particles/prefixes form a direct structural parallel to the Kunbarlang Particles.

Implications: Since the surface type of the construction covaries with the class of the Particle chosen, this can only happen post-syntactically, upon Vocabulary Item insertion. At that stage, depending on the lexical type of the Particle, it may either undergo post-syntactic movement to adjoin the v, or prosodically encliticise to the phonological verbal word, or else remain free to scramble (or stay *in situ*). That is, unless narrow syntax has access to lexical information such as the degree of nativisation, the realisation of the Kunbarlang verb phrase constitutes a strong argument in favour of post-syntactic movement.

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