Evidence for Syntactic Head-Movement from Verb Reduplication

In this paper, we discuss V_i-V_i verb reduplication patterns in several languages. We argue that these patterns are, in essential respects, structurally identical in all cases, but that interpretative differences arise as a function of the position of the compound in the clause, which varies significantly from language to language, partly as a function of differences in verb movement.

<u>*Italian and French*</u>: Benincà & Cinque (1993), henceforth B&C, argue convincingly that in examples like (1) below the two verbs form a single complex head; note that the two verbs in (1) involve only partial reduplication owing to the presence of the prefix *ri-*/*re-* ('re-').

(1)a. *Lo leggo e rileggo sempre.* (Italian)
CL,3S,ACC read.1S,PR and reread always 'I always read and reread it.'

b. *Jean le lit et relit sans cesse.* (French)
Jean CL reads and rereads without cease 'John reads and rereads it constantly.'

Clearly the interpretation is that of iterated action throughout (cf. English *I always read and reread the same book*). B&C show that: (i) the *V-V* complex undergoes head movement in structures with gerunds and yes-no questions, (2); (ii) the two verbs cannot have distinct tenses, or agreement, (3); and (iii) they cannot each have a separate (non-clitic) complement, (4):

(2)a. *Leggendo e rileggendo Gianni sempre lo stesso libro*
reading and rereading Gianni always the same book
'(With) Gianni always reading and rereading the same book …'

b. *Leggi e rileggi sempre il stesso libro?*
read.2S,PR and reread.2S,PR always the same book
'Do you always read and reread the same book?'

(3)a. **lo leggevo e rileggo sempre tutto d'un fiato* (Italian)
CL,3S,ACC read.1S,P and reread.1S,PR always all of'one breath

b. **lo leggiamo e rileggono sempre tutto d'un fiato* (Italian)
CL,3S,ACC read.1PL,PR and reread.3PL,PR always all of'one breath

(4)**Lo leggo a Gianni e rileggo a Piero*
CL,3S,ACC read.1S,PR to Gianni and reread.1S,PR to Piero

Italian also has a class of derived "action nouns" (Thornton 2008) of the form *fuggifuggi* (lit. 'flee flee', idiomatic 'stampede'), *l'arraffa arraffa* (lit. 'the grab grab'), *mangia mangia* (lit. 'eat eat') *pigiapigia* (lit. 'push push', idiomatic 'stampede'), etc. We suggest that these forms consist of two (verbal) roots plus a theme vowel (*-i*/*-a*) embedded under little n. If the theme vowel is an exponent of little v (Calabrese 2019), then clearly the compound is little v embedded under little n rather than an acategorial root (see Rasin, Pesetsky & Preminger 2021). As noted, the interpretation of these compounds is not always fully compositional, which goes to show that these formations are indeed heads, just as B&C argue for the (partial) *V-V* reduplication patterns in (1). As is obvious from the examples, the interpretation of action nouns tends to be intensification, e.g. *fuggifuggi* ('stampede'). Internally to Italian, then, we see that the interpretation of the compound depends on its structural position; the cases discussed by B&C clearly involve inflected verbs capable of moving to higher positions in the clause, as we have seen. These compounds have a characteristic aspectual interpretation, which is a function of their ability to move through the inflectional domain. The verbs forming the nominal compounds on the other hand, are embedded in the so-called lexical domain.

<u>*German and other languages*</u>: V_i-V_i compounds are also found in German, as in (5a). Note that the V_i-V_i compound in (5a) is in V2 position (in fact it cannot be V-final, (5b)), showing that it must undergo head movement. Moreover, in (5a) the complex verbal head precedes the negator *nicht*. Notice also that the latter has scope over the entire complex head, showing that the complex head reconstructs, hence providing evidence for narrow-syntactic head movement. Just as with Italian action nouns, the semantics of the V_i-V_i compound is intensification:

(5) a. *Das Land kommt und kommt nicht aus der Schwächephase.* (German)
the country comes and comes not out the weak-phase
'The country just won't come out of the weak phase.'
b. **dass das Land nicht aus der Schwächephase kommt und kommt.*
that the country not out the weak-phase comes and comes

The V_i-V_i compound is also found in Albanian, as in (6):

(6) *Lexova e lexova dhe s'kuptova gjë.* (Albanian)
read.1S,P and read.1S,P and not'understood.1S,P thing
'I read and read and I didn't understand a thing.'

In addition, in Mandarin we also observe the so-called "tentative reduplication" V_i-V_i pattern, (7b) (compare with (7a)), which has independently been analysed as *V-V* compounding too.

(7) a. *ni kan ta* b. *ni* ***kan-kan*** *ta* (Mandarin, Chen 2023)
you look him you look-look him
'You look at him.' 'You have a look at him.'

The intensification semantics is reminiscent of a cluster of verb reduplication patterns, such as A-not-A questions in Sinitic (Huang, Li & Li 2009), see (8), and others in Albanian, (9) – (10).

(8) *nǐ* ***qù bú qù*** (Mandarin)
you go not go
'Are you going?'

(9) [A] *Beni nuk gjeti punë, apo gjeti?* [B] ***Gjeti, gjeti.*** (Albanian)
Ben not found job or found found found
'Ben didn't find a job, or did he?' 'He DID.'

(10) [A] *Gjeti apo s'gjeti punë Beni?* [B] ***Gjeti, gjeti.*** (Albanian)
found or not-found job Ben found found
'Did Ben find a job, or didn't he?' 'He DID.'

<u>*English*</u>: English arguably also has a construction of this kind illustrated in: *we talked and talked, we thought and thought, we walked and walked*, and so on. Although characteristic of unergatives, as diagnosed among other things by the ability of the verb to combine with *away* (cf. *think/talk* ***away***), the construction is also possible with optional transitives, e.g. *read*, *eat*. However, they cannot appear with a direct object other than *it (*He read the book and read the book* vs. *He read it and read it*), showing that *it* is deficient/clitic-like; the English examples differ from the Romance examples in (1) in that *it* can be, but does not have to be, repeated, which we take to reflect the fact that v is the target for optional enclisis of *it* in English while T is the target for obligatory proclisis of *le/lo* in (1).

Strikingly, in English, the V_i-V_i pattern cannot be negated or questioned:

(11) a. *We didn't read and read (it).
b. *Did you read and read (it)?

The generalisation seems to be that these V_i-V_i compounds are incompatible with *do*-support. We take this to mean that V_i-V_i compounds require Affix-Hopping. We attribute this to the fact that the verb must be connected to the aspectual field by Affix-Hopping in order to receive the required iterative and/or intensive interpretation, given the well-known absence of verb-movement into the inflectional field in English (Emonds 1978, Pollock 1989).

<u>*Conclusion*</u>: What we see is a uniform process of V_i-V_i compounding which gives rise to similar interpretations across a range of languages, but the compound verbs occupy different positions across at least English (v), German (C) and Albanian/Italian (the inflectional field), reflecting independent parameters of verb movement. Since the V_i-V_i compound must be input to the CI interface, both the compounding and verb movement must be narrow syntactic (Lechner 2005).

Benincà, P. & G. Cinque. 1993. Su alcune differenze fra enclisi e proclisi. In *Omaggio a Gianfranco Folena* 2313-2326. Padova: Editoriale Programma. Benjamins. **Lechner, W. 2006**. An interpretive effect of head movement. *Phases of interpretation* 45–70. Mouton **Thornton, A. 2008**. Italian verb-verb reduplicative action nouns. *Lingue e Linguaggio* VII.