Syntactic Copying

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Replicative Processes in Grammar

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Background

Standard assumption:

There are two ways how copies (here conceived of as identical linguistic forms that have a common source) can arise in natural language.

- Syntactic movement leaves copies behind.
  Syntactic operations provide representations in which many potential categories arise that could lead to actual copying; however, of these only a tiny fraction are actually realized as copies.

- Morphological reduplication arises as a consequence of separate operations in morpho-phonology.
  Each actual copy of linguistic material is the result of an individual copy operation that brings it about.

Filtering vs. Generation:

- The first approach to copying starts out with potential copies all over the place and then filters out most of the potential copies, leaving few (in many cases: no) actual copies.

- The second approach to copying starts out with no copies and then generates each actual copy. (This also holds for optimalitiy-theoretic approaches where the form of a copy is determined by optimization procedures, whereas the fact that copying occurs at all is due to the presence of a designated RED morpheme.)

Conjecture and Options

Conjecture (pace Bierwisch (2015)):
It is unlikely that there are two radically different processes in natural languages that can lead to copying of linguistic expressions.

Options

- Option 1: Strengthening of the filtering approach
  The copy theory of movement (Chomsky (1981, 1993, 2008)) can be held responsible for many (ideally, all) replicative processes, including classic cases of reduplication. See Grohmann & Nevins (2004), Kimper (2008), Alexiadou (2010), van Oostendorp (2012), Korsah (2015).

- Option 2: Strengthening of the generation approach
  The techniques required for reduplication can be held responsible for many (ideally, all) replicative processes, including syntactic copying.

Suggestion:
Option 2 is worth pursuing.

Arguments against the Filtering Approach I: Submorphemic Material

Observation:

If the copy theory of movement is responsible for morpho-syntactic reduplication phenomena, it looks like it must be assumed that subword material, and in many cases even submorphemic material that is phonologically defined can undergo movement.

(1)   Initial segment reduplication in Gothic class VII verbs (with invariant default vowel *aí* (Schwa)):

haita	haíhait	"I was called"
fraisa	faífrais	"I tried"
auka	aíauk	"I increased"
falþan	faífalþ	"I folded"

(2)   Syllable-based reduplication in Yidin[y] (Pama-Nyungan):

ḍimurU	ḍimuḍimurU	"houses"
gindalba	gindalgindalba	"lizards"

Possible way out:

Copying of submorphemic material might be an illusion; rather, what is copied has minimally morpheme-size – it just so happens that not all of the morpheme is phonologically realized in the expected way (cf. McCarthy & Prince (1995) vs. Frampton (2009)). However, this still implies that subword material has to be moved that cannot undergo movement in other contexts.

Arguments against the Filtering Approach II: Size Restrictions

Observation:
Syntactic copying typically cannot involve material of arbitrary size, as one would be expect under the copy theory of movement (pace Fanselow & Ćavar (2002), Ott (2012), Fanselow & Féry (2013), Struckmeier (2015)).

(3) Wh-copy constructions in substandard German (Höhle (2000), Pafel (2000), Fanselow & Ćavar (2001), Nunes (2004), Pankau (2013)):

a. Wen$_1$ denkst du [$_{CP}$ wen$_1$ sie t$_1$ getroffen hat] ?
   whom$_{acc}$ think you whom$_{acc}$ she$_{nom}$ met has

b. *[$_{DP_1}$ Welchen alten Mann [$_{CP}$ der im Haus nebenan wohnt]]
      which old man$_{acc}$ who in the house next door lives
   denkst du [$_{CP}$ [$_{DP_1}$ welchen alten Mann [$_{CP}$ der im Haus
   think you which old man$_{acc}$ who in the house
   nebenan wohnt]] sie getroffen hat] ?
   next door lives she met has

Note:
Size restrictions of this type are indicative of morpho-phonological reduplication.

Arguments against the Filtering Approach III: Linearization

Observation:

There is no simple linearization algorithm for remnant movement constructions under the copy theory of movement (Gärtner (2002), Nunes (2004)).

(4)   Multiple remnant movement in German (den Besten & Webelhuth (1990), Müller (2014)):

    a. $[_{VP_3}$ t_2 Gerechnet] hat da$_1$ wie immer t_3' keiner t_3 $[_{PP_2}$ t_1 mit]
            counted   has there as always   no-one   with

    b. #$[_{VP_3}$ Da-mit   gerechnet] hat da$_1$ wie immer $[_{VP_3}$ da-mit
             there-with counted   has there as always   there-with
      gerechnet] keiner $[_{VP_3}$ da-mit   gerechnet] $[_{PP_2}$ da$_1$-mit]
      counted   no-one   there-with counted   there-with

Arguments against the Filter Approach IV: Adjacency

Observation:
Syntactic copies often have to be (semi-) adjacent and cannot be split up by further syntactic operations. This tendency is unexpected under the copy theory. This holds for all classic cases of morpho-phonological reduplication, but also for idioms like the sequential noun reduplication construction in German (Williams (1994), Fleischer (1982), Jacobs (2008), Müller (2011))).

(5) Adjacency effects with sequential noun reduplication in German
    a. Ich bin (*veröffentlichte) Seite auf (*veröffentlichte) Seite den Aufsatz
        I   am   published   page by   ublished   page the paper
        durchgegangen
        through gone
    b. Ich bin Jahr für Jahr nach Rügen gefahren
        I   am year for year to   Rügen gone
    c. *Jahr bin ich für Jahr nach Rügen gefahren
        year am I   for year to   Rügen gone

Proposal

Basic claim:

All instances of syntactic copying are due to the mechanism that is responsible for reduplication in morpho-phonology (cf. Marantz (1982), McCarthy & Prince (1995), Frampton (2009), McCarthy, Kimper & Mullin (2012)). There is no "copy theory of movement" to begin with (Müller (1998, 2014)).

Assuming that reduplication is usually triggered by some (possibly abstract) morpheme in the structure, but does not have to introduce new structure in and of itself, the new approach to syntactic copying makes it possible to accomodate pieces of evidence showing that the copied material is inactive in syntax: The reason for this is that it is not present at all in syntactic structure (see Müller (2011) on sequential noun reduplications like Tag für Tag). However, for those cases where syntactic copying cannot plausibly be assumed to involve just phonological material of an item (e.g., resumptive pronouns and clitic doubling), morpho-syntactic features will be assumed to be copyable in the same way as phonological features. A plausible hypothesis as to which of the two versions of the copy mechanism is chosen may relate to the timing of operations in a cyclic spellout model: If PF realization of some item precedes copying, (only) phonological features will be copied; if PF realization follows copying, the copy operation can only target morpho-syntactic features.

In general, copying does not come for free; there always needs to be a trigger which can be encoded on a head. This can be a grammatical category in the broader sense (e.g., intensification, iterativity, perfect, or plural), but it can also be a standard movement trigger.

Verb Doubling in the World's Languages I

(6)   Verb Doubling with Bare V Fronting

    a.   Lirkod$_1$ Gil lo yirkod$_1$ ba-xayim
        to.dance Gil not will.dance in.the.life
        'As for dancing, Gil will never dance.'   Hebrew, Landau (2006, 37)

    b.   Venir$_1$ me   parece que ya   no   vienes$_1$
        come.inf me.dat seems that already not come.2sg
        'As for coming, it seems to me that you aren't coming in the end.' Spanish, Vicente
        (2009, 168)

    c.   Zingen$_1$ veln mir nisht zingen$_1$
        sing.inf will we not   sing.inf
        'We will not sing.'   Yiddish, Travis (2003, 244)

    d.   Da skrifi$_1$ mi de   skrifi
        cop write 1.sg prog write
        'I am actually writing.'   Sranan Tongo, Parkvall (2000, 89)

    e.   Wá   wè Kɔ̀kú wá
        arrive it.is Koku arrive
        'It is arrived that Koku has.'   Fongbe, Lefebvre & Brousseau (2002, 503)

Verb Doubling in the World's Languages II

(7) **Verb Doubling with Complex VP Fronting**

   a. Di kali **manggi** o **manggitɛ** ...
   the small run 3.sg run.pf
   "When he had just run off a little way ..."   Berbice Dutch Creole, Kouwenberg (1994, 442)

   b. **Dumat'** čto Xomskij genij on **dumaet**, no **čitat'** ego knigi ne **čitaet**
   believe that Chomsky genius he believes but read his books not reads
   "He does think that Chomsky is a genius but he doesn't read his books.'   Abels (2001, 4-5), Aboh & Dyakonova (2009, 1040)

   c. **Rira** bata ni Olu o **ra** bata
   buying shoes foc Olu agr buy shoes
   'Olu BOUGHT the shoes.'   Cho & Nishiyama (2000, 39)

   d. **Rira** adie ti Jimo o **ra** adie
   buying chicken ti Jimo hts buy chicken
   'the fact/way that Jimo bought a chicken.'   Yoruba, Kobele (2006, 214)

   e. **Leer** el libro, Juan lo ha **leido**
   read.inf the book Juan cl has read
   'As for reading the book, Juan has indeed read it.'   Spanish, Vicente (2009, 167)

   f. **Liknot** et ha-praxim, hi **kanta**
   to.buy acc the-flowers she bought
   'As for buying the flowers, she bought.'

   g. **Liknot** hi **kanta** et ha-praxim
   to.buy she bought acc the-flowers.
   'As for buying, she bought the flowers.'   Hebrew, Landau (2006, 37)

Verb Doubling in Northern German Varieties

Observation (Fleischer (2008), Bayer (2008)):
Certain Northern German varieties exhibit verb doubling. In contrast to what is the case in Yiddish, the doubled verb seems to obey strict adjacency ("Im Deutschen ist es fast nie der Fall, dass die verdoppelte Form des Verbs nicht an der 2. Stelle steht", Fleischer (2008, 260)).

(8)   a.   Schlafen schläft er nicht
             sleep   sleeps he not

        b. *Schlafen hat er nicht geschlafen
             sleep   has he not   slept

        c.   Schlafen tut   er nicht
             sleep   sleeps he not

                                         (Standard German)

Sketch of an analysis:
Copying in Northern varieties is locally triggered on the CP cycle as a last resort operation (with a VP having undergone prior movement to Specv), so as to provide both (a) a lexicalization of C (the verb-second property) and (b) a verbal topic specifier for C. If there is no need for copying, it cannot apply (also, if copying applies on the CP cycle, it can never create material in the c-command domain of v, due Strict Cyclicity.

Verb Doubling in Asante Twi

Observation (Hein (2015)):

- Complex VP topicalization in Asante Twi triggers do-support.
- Bare V topicalization in Asante Twi triggers verb doubling.
- Complex VP topicalization and bare V topicaliztion in Hebrew trigger verb doubling.

(9) **Verb doubling vs. do-support in Asante Twi**

    a.   Si-(e)   na Kofi a-si/*a-yɔ   dan
        build-nlzr foc Kofi prf-build/prf-do house

    b.   Dan si-e   na Kofi *a-si/a-yɔ
        house build-nlzr foc Kofi prf-build/prf-do

Hein's analysis: copy theory plus two PF operations: chain reduction, head-to-head movement, with the order parametrized from one language to the other. Bare V topicalization does not create doubling (despite the order that would favour it) because the two Vs don't form part of a single chain, so chain reduction cannot apply before V movement (which is the case with complex VP topicalization).

Sketch of a reanalysis:
If copying precedes movement on the TP cycle (indirectly triggered by a non-local constraint like Phase Balance for the to-be-topicalized item, see Heck & Müller (2003)) doubling is expected throughout (Hebrew). If movement precedes copying on the TP cycle (as in Asante Twi), copying is bled: V cannot show up in a lower position, due to Strict Cyclicity. However, if it is a bare V that is moved, V can successfully be copied after all because it is not embedded in another domain.

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