Synthetic Compounds and Argument Structure: Messages from a bandwagon-jumper-ponner and a two-cents-worth-thrower-inner
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1 Introduction

• SYNTHETIC COMPOUNDS: in [X V Affix] X is interpreted as an argument of V.

(1) a. NOUNS: truck driver, cake eating
   b. ADJECTIVES: meat-eating (cow); taxpayer-financed (projects)

• Plan:
  a) Show the grammatical relevance of the argument interpretation (sect. 2)
  b) Structure of synthetic compound nouns (sect. 3)
  c) Argument-structure: Which arguments can incorporate? (sect. 4-6)

2 Compounding as a mode of argument realisation

• Evidence for grammatical relevance of X’s being an argument of V: Preservation compound-internally of idiomatic interpretations of V-Obj idioms in attested structures like (2). Note esp. (b), where underlined material is specific to idioms for many speakers.

(2) a. dummy-spit [cf. spit the dummy ‘throw a tantrum’]  b. neck cracking  c. leg-pulling, beans spiller, icebreaker, tone-setting, tantrum-playing, tantrum throwing, show stealer, gun-jumper, shortest-straw-drawer, humble-pie-maker

• Caveat: In cases like dummy-spit, piss-takes my argument using (2) must be weighed against Grimshaw’s viewpoint that countable event nominals lack argument structure.

3 Structural aspects

3.1 Affixation before or after compounding?

(4) a. [x [y V cake devour]-er] (late affixation)  b. [x cake [y devour]-er] (early affixation)

• The argument status of cake is captured directly by late affixation, but only with the help of percolation in early affixation.

3.1.1 Difficulties for late affixation

• Problem 1: Certain affixes seem oblivious to the compound nonhead. E.g. -al needs main stress on the previous syllable. Compound stress rule is unaffected by this. It thus appears that early affixation is right – at least as far as PF is concerned.

(5) rubbish removal, holocaust denial, project renewal

2 Problem 2: The [x N V] constituent posited in (4a) is often not usable as a verb:

(6) a. cake-devouring, share buyer, fish eating, child raising, poetry reader
   b. *They [cake-devoured, share-bought, fish-ate, child-raised, poetry-read].

• Overt [x N V] verbs are often attributed to backformation, not direct compounding. Perhaps such verbs are formed by direct compounding, but, unlike compound nouns, such compounds are confined to nameworthy situations (cf. Mithun 1984).

(7) a. self-destruct [cf. self-destructive, self-destruction, destroy, no-destroy]
   b. *self-perceive

• Incorporated object: headbang, fundraise, typeraise, bartend, gatecrash, copy-edit, book-keep, cod-sweep, case-mark

• Incorporated non-object: joyride, sleepwalk, springclean, chainsmoke, giftset, slam-dance, hand-wash, tape-record, sandblast, mass-produce, vacuum-clean, finger-pick, hand-pick, pan-fry, skydive, globe-trot, brainwash, playact, window-shop

10 I [ghostwrite/spoonfed/babysat/typeset/sigh/read/mindread] them.

3.2.1 Problematic solutions

• Prosodic constraint on little-v (tentative idea in Harley 2008) has trouble with verbs zero-derived from compound nouns (to grandstand/moonlight/chainsaw) and with (7)-10).

• Explanations relying on obligatoriness of case assignment or of argument realisation in presence of little-v run aground w.r.t. (11).

(11) a. off-derided, much-loved, light-sleeping, fast-falling

• Percolation: If we generate truckdriver by early affixation and percolation of V’s argument feature, one wonders what to do with (11), where the nonheads are modifiers, thus not selected and not licensed by selectional features which could percolate.

3.1.3 Steps towards an improvement

• Assumption (hopefully wrong but realistic): The full/semi-/un-productivity of particular compounding patterns in particular interpretations (say N-V cpds. with non-nameworthy meanings: *to goat-follow) doesn’t follow from parameters addressing issues beyond the specific patterns described. It must be stipulated in any empirically responsible theory.

• E.g. V+N cpds. are productive in German, but not in English. (The nonheads in the German cpds. in (12) are unambiguously verb stems, unlike in some Englexx.) It’s hard to see another Anglo-German difference that this could plausibly be related to (V2? rich inflection?...), and if the correlations would hold up beyond Germanic.

(12) a. crybaby, drawbridge, scrubwoman, bakehouse
   c. (novel) Abzockarzt ‘rip.off.doctor (who overcharges)’, Stinkblume ‘stink.plant’

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3.3 Category-neutral roots are not relevant to (English) compounding

- I opted for V where Harley (2008) has an acategorial root, since the compounds can contain V-forming suffixes (“little-v-spellouts”), cf. (22). Sporadic bound roots (fishmonger) seem to be unproductive diachronic relics.

(22) road-widening, worker alienation, vocab memorization

4 What can incorporate? The First Sister Principle

(23) First Order Projection Condition (reworded from Selkirk 1982:37f):
All non-subject arguments of a lexical category X must be satisfied within the first order projection of X, where the first order projection is the smallest (morphological or syntactic) projection of X.

(24) First Sister Principle (FSP; Roeper & Siegel 1978:208): All [synthetic] compounds are formed by incorporation of a word in first sister position of the verb.

- Aims: -discuss apparent problems for FSP (sect. 5)
- use FSP to explain previously unnoted recursive synth. compounds (sect. 6)

5 The empirical status of the FSP

5.1 Preliminary observation: Compounds vs. other N+N strings

- Not all N-N sequences are real compounds in English. Endstress, adjectival insertion and one-replacement suggest that N1 is sometimes a type of relational adjective.

(25) summer dress, toy frogs, midnight bus, winter weather, cotton towel

(26) summer sleeveless dress, toy stuffed frogs, summer hot night, midnight southbound bus, winter regional weather; cotton soft towel; New York financial markets, three-syllable prosodic word (most googled by Rätz 2005)

(27) summer dresses and winter ones; gold rings and silver ones

- Cf. synthetic compounds: Forestress, inseparability, no one-replacement (Giegerich 2006):

(28) the tea drinker *(and the coffee one), the bus driver *(and the taxi one)

- Caveat: Studies on compounding and stress (Giegerich 2006, Spencer 2003 w/it) indicate that stress and structure do not always correlate in a one-to-one manner.

5.2 Incorporation of external arguments?

- Agents are mostly bad as compound nonheads, unsurprisingly given FSP and given that (e.g. under little v hypothesis) agents aren’t first sisters to V.

(29) a. beer-drinking by guests b. *guest drinking (of beer)

(30) *girl [discussion/writing/reading/analysis/collection] (of poetry)

5.2.1 Apparent cases of agent incorporation

- Apparent cases of agent incorporation seem to involve zero-derived relational adjectives rather than real compounding (cf. stress; one-pronominalisation, order of dependents).

(31) a. the Soviet Olympic boycott (cf. the Russian Olympic boycott)
   b. *the Olympic Soviet boycott
   c. the American Olympic boycott and the Soviet one.
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(32) a. the Liszt transcriptions (of the Beethoven symphonies)
   b. your transcriptions of the symphonies weren’t as good as the Liszt ones.
   c. Liszt symphony transcriptions
   d. *symphony Liszt transcriptions

   • In some cases N1 looks like agent of –ee-nominalised verb, but actually expresses the institution altfor which N2 works (Bobaljik 2002). Tests show that N1 acts like a relational adjective. Note also city worker, where agent of work is realised by –er, not city.

(33) city employee, UN evacuee, government appointee

(34) *boss employee (Bobaljik 2002)

(35) a. the city employee and the state one.
   b. *the truck driver and the car one.

   • Other cases involve semiproductive copulative-adjetival interpretations (note stress):

(36) student teacher (of maths); child writer; apprentice builder

(37) the student teacher and the one with a degree; the child writer and the adult one

5.2.2 Unaccusatives

• Arguments of unaccusatives can incorporate, as expected (pace Harley 2008, fn.7):

(38) a. tooth decay, rainfall, wage increase, feature spread, sound change, bridge collapse, price rise, tension buildup, health breakdown, plant growth
   b. bone deterioration/disintegration; water evaporation; dust accumulation

   • Complication: For reasons unclear, –ing compounds based on unaccusatives like (39) are sporadic. Commoner are cases with only transitive interpretations, e.g. (40). But this is not a fact about compounding, since the judgements apply to un-nominals as well. N.B. classification of a compound in (39) or (40) is subject to speaker variation.

(39) a. plaster crumbling, paper yellowing, clitic climbing, paint fading
   b. the crumbling of plaster...
      [unaccusative reading]

(40) a. tank emptying, boat sinking/burning, door breaking/opening
   b. the emptying of tanks...
      [causative reading only]

5.3 Object incorporation vs. modifier incorporation

(41) a. pasta eating in trees
   b. (tree) pasta (*tree) eating
   c. tree eating
   d. *tree eating of pasta [Selkirk 1982]

(42) likewise city bus driver, party vodka drinking, highschool maths teaching, Sunday portrait painter, press reports of the sentencing, gapping analysis of coordination

   • With recursive compounding the argument N must be closer to stem than the N with modifier incorporation, cf. (41)b. This satisfies FSP.

   • Things like (41)d are good for many speakers. To uphold FSP I must assume that the modifier Ns are merged outside the N+PP structure. Support comes from (44) (one must stand for a constituent at least as big as NP; cf. Harley 2008).

(43) a. NP N(P)
   b. NP

   N
   N
   N
   N
   V
   V
   N
   N
   V
   V
   XP
   XP
   city
   bus-driver-er
   city
   bus-driver-er

(44) the city taxi driver and the country (*bus) one

6 Recursive synthetic compounding

• We now discuss previously unknown instances of recursive synthetic compounding.

• Data like (45)/46 (e.g. Selkirk 1982:37, Lieber 2004:58) have been taken to show that synthetic compounding can’t be recursive. But these aren’t telling due to extraneous factors (e.g. unproductivity of “P-deletion” compounds: church-goer but *pub-goer; silent prepositions or applicative morphemes in double object structures).

(45) *shelf book putting/*book shelf putting

(46) *child gift giving/*gift child giving

6.1 The simplest case: German [N-P-V-Affix] structures

• German: argument N cannot incorporate in the presence of a directional expression unless the latter incorporates first:

(47) a. das Müllwegwerfen; das Ballreinwerfen
   b. *das Müllwerfen in die Tonne; *das Ballwerfen in den Korb
   c. das Werfen des Mülls in die Tonne; das Werfen des Balls in den Korb
   d. *Weg-Müll-Werfen; *das Rein-Ball-Werfen
   e. *das Müll-in-die-Tonne-werfen; *das Ball-in-den-Korb-Werfen

   • Acceptable cases like (47)a respect the FSP. The nonhead N is sister to V (albeit a morphologically complex one incorporating a particle). Bad cases like (47)a disrespect the FSP. The nonhead N is not sister to V. Initial configurations:

(48) a. NP b. NP

   N
   N
   PP
   V
   V
   N
   N
   P
   V

6.2 English towel-thrower-inner and site-watch-er-over

• Synthetic compounds with nominalised particle verbs (www-attested unless marked *):

(49) a. the trash taker-out
   b. the taker-out of the trash

   (50) Nominalised verb+particle-object idioms:

   a. towel thrower-inner [who throws in the towel ‘gives up’]
   b. steam [blower/letter]-offer [that allows one to let blow off steam ‘relax’]
   c. rear bringer-upper; tab picker-upper; new leaf turner-overer(e); last word getter inner; support drummer upper; *law layer-downer; *two-cents-thower-inner

   (51) Nominalisations of particle verbs with unselected objects:

   water soaker-upper, title thinker-upper, *debtor offerer

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Synthetic compounds

- Synthetic compounds with nominalised prepositional verbs:
  (52) a. bandwagon hopper-onner [who hops on the bandwagon ‘follows a trend’]  
     b. site watcher-overer, move writer-abouter, photo looker-at-er

- Idiomatic readings in (50),(52a) suggest that the compounds are synthetic.

- A structure (ignoring head movement approach to affixation, reduplication, rebracketing):

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  V°  N°  P
  \   / \
   \ / \
    V°
  N°
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- a. towel throw in -er
- b. site watch over -er

- Synthetic compounds with uncontroversially unincorporated PPs/APs are bad, cf. (54).
Marginal phrasal incorporation in (55) also shows need for P-projection incorporation.

(54) a. *cat take out of the house, *car driving around, *car pusher into the garage
b. *door breaker open; *partner shooter-dead
c. *partner lover to bits; *opponent beater to death

(55) a. *bricklayer drinker under the table
b. bricklayer under-the-table-drinker [contrast due to B. Cappelle, p.c.]

- Exceptions presumably involve a marginal adjunct (higher-merged) use of directional PPs which is needed for other purposes (McIntyre 2004: sect. 5).

(56) a. gift-giver to children
b. ‘truck driving to Texas
(57) a. The post returned the letter, so I resent it to the right address. [PP outscopes re-]
   b. I flew Lufthansa again, (this time) to America.  
   c. Kindly smoke that filthy cigar out the window, rather than into my face.

The affix reduplication problem

- Reduplication is a response to conflicting requirements: affix must attach to right of its base and to the head of its base. This conflict only arises in (rare) left-headed structures.

- Similar problem with plural morphology in some dialects:
  (58) a. *sister-in-laws; *governor generals; *hangery-ong [all www]

- Why must the affix attach to the head as well as right periphery? Speculation: V in [\textit{V°} V P\textsubscript{r}] is an \textit{inflectional stem}, i.e. subject to valuation by T. The affix on the stem defuses this requirement.

- The semantic vacuity of the inner affix (Miller 1993; Cappelle 2007);

(59) a. ...it’s harder to be the breaker-upper than the \textit{breaker-upper}
   b. the \textit{eye-putter-outer}

- Attestations of other reduplicated affixes (contra Svenonius’ 2004 account):
  (60) keepy-uppy, fally-downy, showy-offy, fixable-up-able, house-fixing-upping

- Unsolved problem: re-triplication (cf. more better-er):
  (61) present giver-out-er-er

References