

**How to say 'the x that Vs Ns':
Transitive based agent nominalizations in comparative perspective**

1 Overview

- Ways of deriving agent nominalizations from transitive predicates and their complements: 'an x that Vs Ns', e.g. *watch-make-er* 'an x that makes watches'.
- Overview of patterns available in major European languages.
- Central question: Role of syntactic rules in compounding. What is the input of derivation?
- The extent to which word formation as a lexical process is modelled on the analogy of syntactic rules (→ parameter of cross-linguistic [or 'cross-constructural'] variation).

2 Strategies for the expression of transitive-based agent nominalizations

(1)



Engl. *bus driv-er*

Germ. *Bus-fahr-er*

Span. *conduc-tor de autobus*

Ital. *aut-ista*

Br. *bleni-er kirri-boutin* ('driv-er car-public')

chimney sweep

Schornstein-feg-er

deshollina-dor

spazza-camino ('sweep-chimney')

skarzh-er siminal ('empty-er chimney')

- Degrees of 'morphological complexity':
 1. Words vs. phrases (Germ. *Bus-fahr-er* vs. Sp. *conductor de autobus*)
 2. Derived words vs. compounds (It. *aut-ista* vs. Germ. *Bus-fah-rer*)
- Focus on (non-phrasal) compounds
- Two obvious parameters of variation distinguishing subtypes of compounding strategies:
 1. **Presence vs. absence of a derivational affix**
(**affixal** vs. **bare** strategies, e.g. Germ. *Schornstein-feg-er* vs. It. *spazza-camino*)
 2. **Order of verb and noun**
(**NV** vs. **VN**, e.g. Engl. *chimney sweep* vs. It. *spazza-camino*)
- Four types resulting from a cross-classification of the two parameters:

	affixal	bare
NV	Germ. <i>Schornstein-feg-er</i>	Engl. <i>chimney sweep</i>
VN	Br. <i>skarzh-er siminal</i>	It. <i>spazza-camino</i>

Table 1: Cross-classification of parameters

- Proposal made in this talk: Introduction of a further distinction between '**VP-nominalization**' and '**verb nominalization**' which is independent of the cross-classification shown in Table 1 and which allows for some generalizations over the languages under investigation.
- **Structure of the talk:**
 - Section 3: Bare compounds
 - Section 3.1: Bare N-V compounds (Engl. *chimney sweep*)
 - Section 3.2: Bare V-N compounds (It. *spazza-camino*)
 - Section 4: Affixal strategies (e.g. *Schornstein-feg-er*)
 - Section 5: Some generalizations

3 Bare detransitive compounds

3.1 N-V compounds

- Together with the affixal strategies, this pattern is the most widespread one in early Indo-European languages (cf. Rubenbauer and Hofmann 1995, Bornemann and Risch 1987)
- (2) Ancient Greek
 - a. *ἀνθρωπι-ο-φάγο-ος* ‘man-LN-eat-INFL (cannibal)’
 - b. *φωσ-φόρο-ος* ‘light-bring-INFL’
 - c. *εἰρην-ο-ποι-ος* ‘piece-LN-make-INFL’
- (3) Latin
 - a. *agr-i-col-a* ‘field-LN-cultivate-INFL’ (‘farmer’)
 - b. *arm-i-ger* ‘weapon-LN-carry’ (‘warrior’)
 - c. *part-i-cep-s* ‘part-LN-take-INFL’ (‘participant’)
 - Also widespread in Early Germanic
- (4) Old English (Kastovsky 1985: 248–9)
 - a. *ǣw-brec-a* ‘law-break-INFL’
 - b. *mere-far-a* ‘sea-travel-INFL’ (‘sailor’)
 - c. *loc-bor-e* ‘curl-bear-INFL’ (‘person with long hair’)
 - Kastovsky (1985: 246–7) on the final vowel in such compounds:

“Historically, the following Old English patterns arose from the addition of nominal stem formatives to (verbal) roots [e.g. *-a* to *brec*, VG]. These formatives probably had some derivative-semantic function just like the consonantal suffixes, **but primarily they determined the inflectional class of the lexical item in question** [my emphasis, VG]. ... This is why in Old English works like NSg *gum-a*, GSg *gum-an* ‘man’ as well as in derivatives like *wig-a*, *bor-a*, etc., *-a*, *-an* have to be regarded as inflectional (case/number) suffixes and not as derivational suffixes; the derivational element in these cases is not represented overtly, i.e., it is zero.”
 - Some Middle English examples (Sauer 1992: 202ff.)
- (5)
 - a. *childre-bere* ‘child-carry’ (‘pregnant woman’)
 - b. *eu-bruche* ‘matrimony-break’ (‘adulterer’)
 - c. *here-toga* ‘army-draw’ (‘duke’, cf. Germ. *Herzog*)
 - Remnants of this pattern in Modern English (often with negative meanings or connotations):
- (6) *chimney sweep, barkeep, bellhop, cardsharp*
 - **Note:** Unlike Latin, Old English also allows the derivation of bare nouns from single verbs:
- (7)
 - a. OE *wiga* ‘fighter’ < *wigan* ‘fight’
 - b. Lat. **col-a* < *col-e-re* ‘cultivate’
 - c. Lat. *pugn-a* ‘battle’, cf. *pugn-a-re* ‘fight’ < *pugn-us* ‘fist’ (→ backformation)
 - Modern German has very few instances of bare V-N compounds:
- (8) *Mund-schenk* ‘mouth-pour (cupbearer)’
 - Instance of a masculine derivative ending in (derivational or inflectional?) schwa?
- (9)
 - a. *Bürg-e* ‘bailman’ < *bürg-en* ‘to bail’
 - b. *Erb-e* ‘heir’ < *erb-en* ‘to inherit’
 - c. *Zeug-e* ‘witness’ < *(be)zeug-en* ‘to witness’
- (10) ModG (*Mund-*)*schenk* < MHG *schenke* < OHG *scenko*
 - Bare V-N agent nominalization does not seem to exist in Romance or Celtic languages.

3.2 V-N compounds

- Forms a common (though minor) pattern in Ancient Greek (Bornemann and Risch 1987):
- (11) a. *φερé-νικ-ος* ‘bring-victory-INFL’ (cf. also *νικη-φóρ-ος*)
 b. *φιλό-σοφ-ος* ‘love-wisdom-INFL’
 c. *μῖσο-βάρβαρ-ος* ‘hate-foreign-INFL’ (‘xenophobe’)
- The pattern is not generally assumed to have existed in Classical Latin, but there seem to be some attested examples (partially probably calques from Greek; cf. Bork 1990)
- (12) b. *motacilla* < **mota-cul-a* ‘move(INT)-arse-INFL’ (‘wagtail’) (cf. Greek *σεισ-ο-πυγίς*)
 a. *fulci-pedi-a* ‘hold.up-feet-INFL’ (‘arrogant woman’)
 c. *verti-cordi-a* ‘turn-heart-INFL’ (epithet of Venus, i.e. *Venus Verticordia*)
- Bare V-N compounds have become the main pattern of compounding in Romance languages:
- (13) a. Fr. *casse-cou* ‘break-neck (daredevil)’, *casse-tête* ‘break-head’
 b. It. *spazza-camino*, *spaventa-passeri* ‘scare-birds’, *guarda-boschi* ‘guard-forests’
 c. Sp. *mata-sanos* ‘kill-healthy’, *asalta-bancos* ‘bank robber’, *lava-dinero* ‘money launderer’
- Breton also has bare V-N compounds (contact influence from French?; cf. Pilch 1996)
- (14) a. *torr-penn* ‘break-heart, difficult problem’
 b. *rann-galon* ‘split-heart, affliction’
- Pattern was borrowed into Middle English (though singular examples seem to be attested from pre-Norman times, cf. Carr 1939)
- (15) a. direct borrowings: *chaunte-cler* ‘sing-clear’ (‘cock, chanticleer’)
 b. hybrid formations: *dobbe-dent* (‘beat-tooth’ [dentist])
 c. calques: *bere-blisse* (cf. Fr. *porte-joie*)
- (16) Modern English (cf. Marchand 1969: 380ff.)
cutthroat, *cutpurse*, *pickpocket*, *daredevil*, etc.
- German: There are singular instances of ‘imperative compounds’ (cf. Fabian 1931):
- (17) a. *Stör-en-fried* ‘disturb-the-piece’
 b. *Habe-nichts* ‘have-nothing’
- This pattern was more productive in MHG vernacular speech:
- (18) a. *lær-en-biutel* ‘empty-the-bag (robber)’
 b. *füll-en-sac* ‘fill the bag (robber)’
- Difference: The German compounds contain an NP, not a bare noun; they are clearly derived from clauses, probably from imperatives.

3.3 Some generalizations

- Bare nominalizations are only possible if they conform to the order of elements within the VP.

	NV	VN
Greek	<i>νικη-φóρ-ος</i>	<i>φερ-é-νικ-ος</i>
Latin	<i>agr-i-col-a</i>	<i>fulci-pedi-a</i> (very marginal)
Old English	<i>ǣw-brec-a</i>	<i>Clawe-cunte</i> (very marginal)
Romance (Sp.)	<i>mamífero</i> (marginal, inherited)	<i>mata-sanos</i>
Modern English	<i>chimney sweep</i> (very marginal)	<i>cutthroat</i>
Mod. Breton	–	<i>torr-penn</i>
Mod. German	<i>Mund-schenk</i> (very marginal)	<i>Stör-en-fried</i> (very marginal)

Table 2: Correlation between the order of elements in VP and in bare agent nominalizations

- Conclusion: In major European languages, bare agent nominalizations generally seem to be modelled on the analogy of VPs.

(19) **VP-nominalization:** $VP_L \Rightarrow N_{AGENT}$
 $[VP [N \text{ ag(e)r-}] [V \text{ col-}]] \Rightarrow [N \text{ agr-(i)col-(a)}]$

- VP_L : ‘lexical VP’, i.e. a VP consisting of bare lexical material only.
- Further evidence that it is a VP that functions as an input to derivation:
 Bare compounds are also possible with combinations of an intransitive verb and an adverb:

- (20) a. Span. *cae-mal* ‘be.liked-badly (dislikable person)’
 b. Engl. *die-hard*

4 Affixal derivation

4.1 Ancient Greek, Latin and Early Germanic

- Ancient Greek *-τήρ*, *-τωρ* (cf. Bornemann 1987):

- (21) a. *σω-τήρ* ‘save-NA’, *δο-τήρ* ‘giv-NA’
 b. *ρή-τωρ* ‘speak-NA’ (cf. *ρή-μα* ‘word, speech’), *γενέ-τωρ* ‘create-NA’

- Latin: *-(t)or*_{MASC} and *-trix*_{FEM} (added to perfect participle) (cf. Rubenbauer 1995):

- (22) a. *ora-tor* ‘speak-NA’, *ara-tor* ‘plow-NA’, *ac-tor* ‘drive-NA’
 b. *adiu-trix* ‘help-NA’, *vic-trix* ‘win-NA’

- Derived agent nouns cannot form part of another (higher-level) compound; but ‘loose compounds’ (*Zusammenrückungen*) are possible; perhaps best analyzed as ‘phrasal compounds’ (‘bring, carry’: *fer-* → present stem, *lat-* → participle perfect stem):

- (23) a. **leg(-i)lat-(t)or* ‘law-LN-bring-NA’
 b. *leg-is-lat-(t)or* ‘law-GEN-bring-NA’
 c. $[NP[NP \text{ legis}] [N(P) \text{ lat-or}]]$

- Apparent cases of ternary agent compounds (or N-N composition):

- (24) *vent-i-lat-or* ‘wind-GEN-bring-NA’, not ‘wind-LN-bring-NA’

- Remember: Bare N-V compounds are also often formed in such cases:

- (25) a. *luc-i-fer* ‘bringer of the light’
 b. **luc-i-lat-or*
 (c. **luc-is-lat-or* is unattested, though predicted to be possible)

4.2 Romance languages

- Romance: forms of *-tor*:

- (26) Fr. *conduc-teur* ‘driver’, *construc-teur*, *racon-teur* ‘narrator’
 Sp. *conduc-tor* ‘driver’, *construc-tor*, *conta-dor* ‘clerk’
 It. *condut-tore* ‘director’, *costrut-tore*, *racconta-dore* ‘narrator’

- Increasing use of Lat. *-ari-*, originally a suffix deriving ‘relational adjectives’ (cf. the talk given by L. Gunkel and G. Zifonun at this conference); ‘x relates to y in some way’:

- (27) a. *foc-us* (‘hearth’) – *foc-ari-us* ‘relating to the hearth’
 b. *api-s* (‘bee’) – *api-ari-us* ‘relating to bees’ (Kurschildgen 1983: 204)

- Agentive nouns are special cases of these relational derivatives:

- (28) a. *unguent-um* ‘unction’, *unguent-ari-us* ‘ x_{MASC} related to unctions, seller of unctions’
 b. *sagitt-a* ‘arrow’, *sagitt-ari-us* ‘ x_{MASC} related to arrows, Bowman’
 c. *ferr-um* ‘iron’, *ferr-ari-us* ‘ x_{MASC} related to iron, smith’

- o Different phonological developments in Romance languages (cf. Kurschildgen 1983: 224)

Lat.	<i>-arius</i>	<i>-arium</i>	<i>-aria</i>
Fr.	<i>-ier, -eir, -ar, -ari</i>	<i>-ier, -eir, -aire, -ari</i>	<i>-ière, -aire</i>
It.	<i>-aio, -ajo, -iere/-o, -ario</i>	<i>-aio, -ajo, -iera/-o, -ario</i>	<i>-aja, -iera, -era, -aria</i>
Sp.	<i>-ero, -ar/-el, -ario</i>	<i>-ero, -ar/-el, -ario</i>	<i>-era, -aria, -aria</i>
Rum.	<i>-ar, -arîŭ</i>	<i>-arîŭ</i>	<i>-are</i>

Table 3: Reflexes of Lat. *-ari-* in some Romance languages

- (29) Fr. *actionn-aire* ‘shareholder’, *ouvr-ier* ‘labourer’, *secrét-aire* ‘secretary’
 It. *camar-iere* ‘waiter’, *oper-aio* ‘labourer’, *segret-ario* ‘secretary’
 Sp. *camar-ero* ‘waiter’, *herr-ero* ‘smith (iron-er)’, *secret-ario* ‘secretary’

- o **Note:** As in Latin, ternary structures do not seem to have been possible at any time in Romance

(30) Spanish

- *autobus-conduc-tor* ‘bus-driv-er’ (*conductor de autobus*)
- *estado-secret-ario* ‘state-secret-ary’ (*secretario de estado*)

- o Assumption: *tor*-suffixes derive nouns from verbs; given that N-N composition is basically inexistent in Romance, detransitive agent nominalizations are not possible:

- (31) a. *[_N[_N *autobus*] [_N *conduc-tor*]]
 b. *[_N[_N *viento*] [_N *molino*]] (*moline do viento* ‘wind mill’)

4.3 Germanic languages

- o Germanic: OHG *-âri*, OE *-ere*, G *-areis*, ON *-ari*; early borrowing from Latin (*-ari-*); cf. Carr (1939), Becker (1824/1990).
- o Unlike in Romance, examples with incorporated objects are attested from the earliest records on:

- (32) a. G *witoda-lais-areis* ‘law-teach-er’
 b. OHG *reht-brech-âri* ‘law-break-er’
 c. OE *stæ̅r-wrīt-ere* ‘story-write-er’ (Carr 1939: 229)

- o Widespread in Middle English, both binary and ternary (cf. Sauer 1992)

(33) Middle English

- bac-bit-ere* ‘backbiter, defamer’
- cnif-warp-ere* ‘knife-throw-er’
- wæi-wit-ere* ‘leader, way-know-er’

4.4 Celtic languages

- o Welsh: pattern of composition corresponds very closely to the English one (contact influence?; cf. Pilch 1996)

- (34) a. *treth-dal-wr* ‘tax-pay-er’
 b. *gwlad-gar-wyr* ‘land-love-er (patriot)’

- o Modern Breton: suffixed verb precedes noun (V-er-N; cf. Pilch 1996: 77):

- (35) a. *klask-er-bara* ‘seek-er-bread (beggar)’
 b. *labour-er-douar* ‘work-er-earth (farmer)’

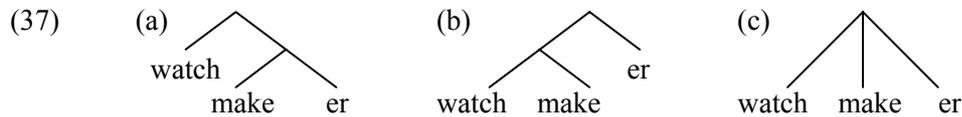
- o Compounds of the type V-er-N can be regarded as being formed on the model of common (head-initial) N-N compounds:

- (36) a. *paotr-zaout* ‘boy-cow’
 b. *lez-varn* ‘court-law’ (Pilch 1996: 68)

5 Affixal compounds: VP-nominalization or verb-nominalization?

5.1 On constituency in deverbal synthetic compounds

- Latin, Romance: Agent suffixes can only derive binary compounds (i.e. compounds not containing an object N[P]); no N-N compounding in this lexical domain.
- Germanic (also Celtic): Agent suffixes can also be used when the resulting compound contains an object ⇒ **synthetic compounds**
- Alternative structural analyses of ‘synthetic compounds’:



- (b) is usually discarded for English (see e.g. Booij 2007: 90–91).
- (c) is unattractive from the perspective of a compositional model of interpretation.
- Is (a) the correct solution? For English (and Breton, Welsh), probably YES.
- **But:** German (as well as the Scandinavian languages) behaves differently from English in some respects.
- Unlike English, German also allows the use of adverbs within agent nominalizations:

(38) a. *Schnell-schreib-er* ‘quick-write-er’

a’. [schnell schreib]-er

a’’. [schnell] [schreib-er]

b. *Lang-schläf-er* ‘long-sleep-er’

b’. [lang schläf]-er

b’’. [lang] [schläf-er]

- Other cases which can hardly be analyzed along the lines of (37)(a): resultative/causative predicates

(39) a. *Schwarz-mal-er* ‘black-paint-er (pessimist)’

a’. [schwarz-mal]-er ‘someone who paints everything black’

a’’. [schwarz] [mal-er] ‘a painter related to black colour’

b. *Dick-mach-er* ‘fat-mak-er (fattening food)’

b’. [dick-mach]-er ‘food that makes people fat’

b’’. [dick] [mach-er] ‘an x that makes something and that is related to fatness’

- **These compounds seem to be modelled on the analogy of a VP, just like bare compounds in Greek, Latin, Romance and Modern English.**

- Further evidence for VP-nominalization in German: Absence of *ablaut* (vowel gradation)

(40) a. *Museum-s-gäng-er* ‘museum-LN-go-er’

b. *Gassi-geh-er* ‘dog-walk-er’

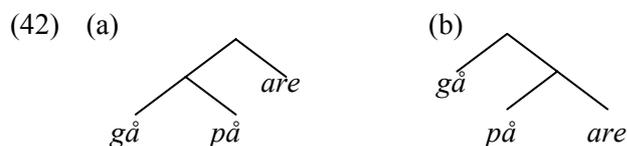
- While *Museum-s-gäng-er* can be analyzed as a N-N compound (with the righthand member being an agent nominalization, i.e. *Gänger*), this does not seem to be possible in the case of *Gassi-geh-er*.

- *Gassi-geh-er* is quite clearly an instance of VP-nominalization: [_N[_{VP}Gassi geh]-er]

- Similar cases from Swedish (VO), which seem to be incompatible with (37)(b): particle verbs

(41) a. *gå-på-are* ‘go-at-er (daredevil)’ (cf. Germ. *Drauf-gäng-er*)

b. *förstå-sig-på-are* ‘know-it-all’



5.2 An additional parameter of classification: VP-nominalization vs. verb nominalization

Hypothesis: Detransitive agent nominalizations differ across constructions with respect to their input categories: They may be based on ‘lexical VPs’ (‘VP-nominalization’) as well as on simple verbs (‘verb nominalization’).

- Parameter is independent of the two parameters introduced at the beginning (order of V and N, presence vs. absence of derivational affix).
- Greek, Latin, Romance, English: clear differentiation between VP-nominalization (bare nominalization, e.g. *break-bones*) and verb nominalization (affixal nominalization, e.g. *bone breaker*).
- Difference between English and Romance: English, unlike the Romance languages, allows N-N compounding.
→ Engl. [_N[_N*bus*] [_N*driv-er*]] vs. Span. *_N[_N*autobus*] [_N*conductor*]]
- Given that English does not allow affixal VP-nominalization, synthetic compounds in this language are invariably instances of N-N compounding.
→ [_N[_N*bus*] [_N*driv-er*]] but *_N[_{VP}*quick write*]-er]
- Germanic w/o English: There is no bare agent nominalization; affixal nominalization is either verb nominalization (e.g. [_N[_N*Bus*] [_N*fahr-er*]]) of VP-nominalization ([_N[_{VP}*dick mach*]-er]).

	VP-nominalization	verb nominalization	N-N compounding
Romance	bare compounds	affixal compounds	no
English	bare compounds	affixal compounds	yes
Germanic	affixal compounds		yes

Table 4: ‘Division of labour’ between strategies of agent nominalization

Abbreviations

- LN linking vowel (Germ. *Fugenlaut*)
 NA *nomen agentis*

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