THE LARGESSE OF DIMINUTIVES: SUPPRESSING THE PROJECTION OF ROOTS

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The basic observation ...[1]

- the existence of verbs containing affixes with diminutive (attenuative, iterative) semantics (Dressler & Merlini Barbaresi 1994, Jurafsky 1996, Wiltschko & Steriopolo 2007, Tovena 2010, De Belder et al. 2014), cf. (1)
- the same diminutive suffixes are also found on nouns, (2)

1) a. *Das Wasser koch-t / köch-**el**-t.* Standard German (SG)
the water boil-3SG.PRES boil-DIM-3SG.PRES
'The water boils / simmers'

b. *fischi-**ett**-are* Italian, De Belder et al. (2014)
whistle-DIM-INF
'to whistle; to emit short whistles"

c. ***c**i**xk**e**k*** Modern Hebrew (MH), De Belder et al. (2014)
giggle.DIM.V
'to giggle'

2) a.	*Busch m.*	*Büsch-**el** n.*	SG
	bush	bush-DIM	
	'bush'	'small bush, bunch, tuft'	
b.	*fischi-o*	*fischi-**ett**-o*	Italian
	whistle-SG.M	whistle-DIM-SG.M	
	'whistle' (action)	'whistle' (object)	
c.	(√cxk)	***c**i**xk**u**k***	MH
	laugh	giggle.DIM.N	
		'a giggle'	

... and the basic proposal

- the "verbal" diminutive of SG (1a) is structurally denominal, with the affix spelling out the head of a diminutive nP as in (2a); (some of) the features of this n_{DIM} were diachronically reanalyzed as part of the verbal domain of the structure

[1] This is a slightly revised version of our NELS 49 (Oct. 5-7, 2018) handout. We would like to thank the NELS audience for comments and suggestions. We are also grateful to Hannes Fellner, Peter Hallman, Alan Nussbaum, and Antonia Rothmayr for their valuable feedback.

Roadmap

- Background on (nominal) diminutives
- Our corpus of German *-(e)l-* and *-erl*-verbs and their classification
- Brief discussion of previous approaches
- Proposal:
  - argue that SG and Viennese "verbal" diminutives contain n_{DIM}
  - n_{DIM} can select √ or n
  - roots do not always project - accounts for argument/event structure asymmetries between deverbal diminutives and their apparent verbal base
  - diachrony of *-(e)l-/-erl*-verbs corroborates this analysis
- Summary and implications: types of denominal verbs and their properties

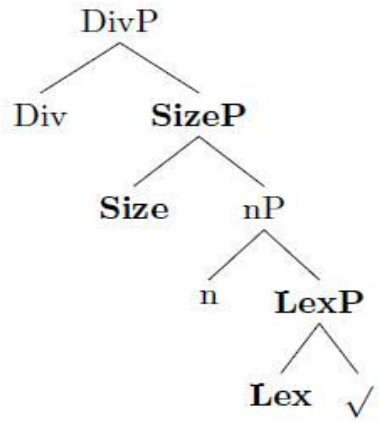
1. Diminutive background

- diminutive affixes turn mass nouns into count nouns (Jurafsky 1996, Borer 2005, Wiltschko 2006):

3)	*viel*	*Wein* m.	*viel-e*	*Weind-erl(-n)* n.	(Viennese)
	much	wine	many-PL	wine-DIM(-PL)	
	viel	*Schlaf* m.	*viel-e*	*Schläf-chen* n.	(SG)
	much	sleep	many-PL	sleep-DIM	

- semantic universals include "small", "approximation", "intensity", "individuation", "attenuation" (Jurafsky 1993, 1996)
- diminutives change noun gender or class (e.g. Dutch, German, Hebrew, Hindi)
- **De Belder et al. (2014)**: two different functional heads responsible for diminutive formation cross-linguistically. These are not category-forming and can co-occur (depending on the language):

4) De Belder et al. (2014): structure of diminutives:



- **LexP:**
  - selects roots
  - attaches below category-forming heads (v, n, a)
  - *may* have non-compositional meaning
  - **Ex.**: It. *cas-a* 'house': *cas-**in**-o* 'brothel' (*'small house'); Hebr. ***xatul*** 'cat': ***xatal**tul* 'kitten', SG *Busch* 'bush': *B**ü**sch-**el*** 'tuft, bunch' → **non-compositional**
- **SizeP:**
  - selects nPs; sits between DivP (≅ NumP; the projection that hosts number marking/classifier morphology, cf. Borer 2005) and nP
  - adds boundedness, unit-reading (cf. Ott 2011: UnitP)
  - *always* fully compositional
  - **Ex.**: It. *cas-a* 'house': *cas-**in**-a* 'small house'; Hebr. ***xatul*** 'cat': ***xatul-on*** 'small cat', Austro-Bav. *Sockn* 'sock': *Sock-**erl*** 'small sock' → **compositional**

SG *-(e)l-* seems to spell out Lex: it is non-compositional, not productive, and can be selected by higher, productive DIM morphology, (5a), and, arguably, by verbal morphology, (5b):

5) a.

Bund	*Bünd-**el***	*Bünd-**el-chen***
bunch	bunch-DIM	bunch-DIM-DIM
'bunch'	'bundle'	'small bundle'

b. *bünd-**el**-n*
bunch-DIM-INF

- DIMINUTIVE *-(e)l-* triggers **umlaut** on the base vowel:
  - *a* > *ä* (/ɛ/, /eː/)
  - o > ö (/œ/, /øː/)
  - *u* > *ü* (/ʏ/, /yː/)
  - *au* > *äu* (/ɔʏ/)
- NON-DIMINUTIVE *-(e)l-* does not trigger umlaut (mostly found on instrument nouns, e.g., *Sattel* 'saddle', *Nagel* 'nail', *Hobel* 'plane', etc.)
- DIMINUTIVE *-(e)l-*nouns are always neuter, NON-Diminutive *-(e)l-* is m. or f., rarely n.

Austro-Bavarian/Viennese *-erl-* /al/ does not trigger umlaut, *-l-* (< *-el-*) usually does, as in SG:

6) Viennese *-erl-* vs. *-l-*

a. *-erl-*		b. *-l-*	
Sack m.	*Sack-**erl*** n.	*H**au**s* n.	*H**ei**s-**l*** n.
sack	sack-DIM	house	house-DIM
'sack, bag'	'small bag'	'house'	'toilet'
Suppe f.	*Supp-**erl*** n.	*B**ua**sch m.*	*B**ia**sch-**l** n.*
soup	soup-DIM	boy	boy-DIM
'soup'	'small amount of soup'	'boy'	'little boy'

- Can the verbal *-(e)l-*/*-erl-* suffixes be equated with the nominal ones?

2. Core data

We assembled a corpus of 300 verbs containing the SG affix-*(e)l*- and its Austro-Bavarian variant -*erl*- /al/ based on the data discussed in Weidhaas and Schmid (2015), Dressler and Merlini Barbaresi (1994), Hornung and Grüner (2001) and cross-checked with the *Digitales Wörterbuch der deutschen Sprache* (= DWDS), *Deutsches Wörterbuch* (= DWB) and Kluge's *Etymologisches Wörterbuch der deutschen Sprache* (Kluge 1999). These were divided into four basic classes:[2]

- **Class I**: base = adjective
  - **a.** base without *(e)l*-suffix (11 verbs)
  - **b.** base with *(e)l*-suffix (2 verbs)
- **Class II**: base = verb (97 verbs)
- **Class III**: base = noun
  - **a.** base without *(e)l*-suffix (43 verbs)
  - **b.** base with *(e)l*-suffix (144 verbs)
- **Class IV** "other":
  - **a.** base = inflected verb form (2)
  - **b.** base = adverb (1)

We excluded 64 verbs of (i) onomatopoeic and/or synchronically and diachronically unclear bases (e.g. *bimmeln* 'ring', *nuscheln* 'speak indistinctly', *wuseln* 'to scuttle, bustle', *zappeln* 'to twitch, fidget', etc.); (ii) loanwords (e.g. *handeln* /hɛndl̩n/ < Engl. *to handle*, *recyceln* < Engl. *to recycle*, *metzeln* 'to slaughter' < Lat. *macellāre*, etc.); (iii) words from different dialects/words not used in the dialect area we/our informants are familiar with (e.g. *büffeln* 'to study')[3]

Examples:

7) Class I (base = adjective)
   a) *schwach* *schwäch-**el**-n*
      weak weak-DIM-INF
      'weak' 'to be a little/act weak'
   b) *blöd* *blöd-**el**-n*
      silly silly-DIM-INF
      'silly' 'to be a little/act silly'
   c) *fromm* *frömm-**el**-n*
      pious pious-DIM-INF
      'pious' 'to act piously'
   d) *grau* *gräu-**el**-n*
      grey grey-DIM-INF
      'grey' 'to be somewhat grey, greyish'

[2] Abbr.: OHG = Old High German, MHG = Middle High German, NHG = New High German, LG = Low German.
[3] Words with a LG or North German derivational base were included if the base (≠ the derived word) was borrowed.

- DIM seems to act as a verbalizer
- DIM *always* triggers umlaut (on umlaut-capable vowels, cf. *fremd* ‘strange’: *fremd-el-n* ‘be afraid of strangers, act shy around strangers (of kids)’)

8) Class II (base = verb)

a)	*koch-en*	*köch-**el**-n*
	boil-INF	boil-DIM-INF
	‘to boil’ (anticaus./caus.)	‘to almost boil/simmer’
b)	*dräng-en*	*dräng-**el-**n*
	urge-INF	urge-DIM-INF
	‘to urge/push’	‘to jostle, to push less intensely/a little/repeatedly’
c)	*tanz-en*	*tänz-**el**-n*
	dance-INF	dance-DIM-INF
	‘to dance’	‘to prance, skip, dance daintily’
d)	*schütt-en*	*schütt**-el**-n*
	pour-INF	pour-DIM-INF
	‘to pour’	‘to shake, pour out small units’
e)	*funk-en*	*funk**-el**-n*
	spark-INF	spark-DIM-INF
	‘to emit sparks, to sparkle’	‘to sparkle, emit light (stars, diamonds, etc)’
f)	*schreib-en*	*schreib**-erl-**n* (Viennese)
	write-INF	write-DIM-INF
	‘to write’	‘to write badly, inexpertly’

- DIM adds iterative, intensive/attenuative or pejorative semantics
- DIM does not consistently trigger umlaut on the base vowel, cf. (8e); some verbs have/had umlauting *and* non-umlauting variants (e.g. MHG *lacheln* besides *lächeln* ‘smile’, *muffeln* vs. *müffeln* ‘to smell musty’, etc.)

9) Class IIIa: base = noun without *(e)l*-suffix

a)	*Frost*	*fröst-**el**-n*
	frost	frost-DIM-INF
	‘frost’	‘to shiver, be cold’
b)	*Schlange*	*schläng-**el**-n*
	snake	snake-DIM-INF
	‘snake’	‘to move like a snake’
c)	*Stück*	*stück-**el**-n*
	piece	piece-DIM-INF
	‘piece’	‘to divide into pieces’
d)	*Maus*	*maus-**el**-n*
	mouse	mouse-DIM-INF
	‘mouse’	‘to smell of mice’
e)	*Kunst*	*künst-**el**-n*
	art	art-DIM-INF
	‘art’	‘to feign, behave in an affected manner’

- DIM mostly triggers umlaut (fewer exceptions than in class II)
- DIM seems to act as a verbalizer (cf. class I)

10) Class IIIb: base = noun with *(e)l*-suffix

	No Umlaut			Umlaut	
a)	*Sattel*	*sattel-n*	d)	*Brösel*	*brösel-n*
	Saddle	saddle-INF		crumb	crumb-INF
	‘Saddle‘	to saddle’		‘crumb’	‘to flake, crumb’
b)	Hagel	hagel-n	e)	*Bündel*	*bündel-n*
	hail	hail-INF		bundle	bundle-INF
	‘hail’	‘to hail’		‘bundle’	‘to bundle’
c)	*Wurzel*	*wurzel-n*	f)	*Zügel*	*zügel-n*
	root	root-INF		rein	rein-INF
	‘root’	‘be rooted in’		‘rein’	‘to put reins on, rein in’

- the root vowel of the derived verb only umlauts if the base does too; cf. (10d-f)
- only four apparent exceptions out of 144 verbs:
    - *mäkeln* ‘to criticize, carp (earlier tr.)’, synchronically associated with *Makel* m. ‘fault, blemish’, but diachronically from LG/Dutch *mäkeln/makelen* ‘haggle, bargain, do business’; deverbal to *maken* ‘make’
    - *nageln* ‘to nail’ from *Nagel* m. ‘nail’, but OHG *negilon* and MHG *negelen* show an umlauted variant (as if NHG **nägeln*), which reflects PGmc. **nagljan* (Kroonen 381); the *j*-verbalizer in the latter form gave rise to the umlauted variant
    - *(ver)täfeln* ‘to panel, inlay’ to *Tafel* f. ‘plane, panel’; older ‘table’, but MHG had an umlauted Variant *Tevel* n. (neuter suggests diminutive) that may be the diachronic base
    - *vögeln* ‘to screw, fuck’, associated with *Vogel* ‘bird’ since the 15th century (earliest attestations are about bird sex); but there’s also an older *vogeln* (OHG *fogalōn*) meaning ‘go fowling, hunt birds’), so it’s possible that *vögeln* was originally deverbal to the root seen in German *ficken*, Dutch *fokken*, etc. (**fug*-); difficult to determine because it’s a taboo word
- iterative, attenuative, pejorative semantics less pronounced than in class II or absent - in those cases where “diminutive” semantics *are* present, they are clearly part of the base (*bröseln* ‘to crumble into small crumbs’: *Brösel* ‘small crumb’ vs. *wurzeln, satteln*)

Main questions to address:

- the different classes of *-(e)l/-erl*-verbs differ in terms of their derivational base, syntax, and semantics:
    - iterative
    - intensive
    - pejorative
    - “low intensity”, “small pieces”, “playful-tentative”, “playful-pretentive” (Weidhaas & Schmid 2015)
    - “diminutive”, “childish”, “child-directed” (Dressler & Merlini Barbaresi 1994)

→ can all these “functions” receive a uniform analysis?

3. Previous approaches

Weidhaas & Schmid (2015): Corpus study of 273 *-eln*-verbs, propose three types: I) verbs derived from a nominal, adjectival or verbal base that does not contain *-l-* (i.e., *-l-* = part of the suffix), II) verbs derived from a (nominal) base that already contains *-l-* (*-l-* = part of the base), III) “monomorphemic” verbs without a clear derivational basis, onomatopoeic verbs. Based on Jurafsky 1996, they argue that all three types contain the feature ATTENUATION

- 74% of their type I verbs are derived from verbs
- 87% of their type II verbs are derived from nouns

They argue that type I is the best starting point, since change of word class cannot be suspected as the cause of the suffixation, therefore “semantics” must be the cause. However, the same semantic features (“attenuation”) are supposedly found in all three classes.

11) Weidhaas & Schmid (2015): types of semantic attenuation found in type I verbs
    a) “low intensity”: 44% of type I verbs, “small on a particular scale” (Jurafsky 1996)
    b) iterative: 38% of type I verbs, iteration → low or high intensity?
    c) small pieces
    d) playful-tentative

Problems:

- analysis of the selected verbs based strongly on that of Duden (both for meaning and for derivational basis & etymology)
- no distinction between semantics and pragmatics of *-(e)l*-verbs (**same** for Dressler & Merlini Barbaresi 1994, 2001)
- even though Weidhaas & Schmid claim that the same semantic features as in (11) are found in types II and III, they are much less pronounced or absent in those classes
- WS do not address the differences w.r.t. umlaut
- WS insist on analyzing *-el-* in type I as a *verbal* morpheme. Because this cannot be reconciled with types II and III, they argue for an “output-oriented” approach in which “the phonological structure as well as the semantic and pragmatic properties of the word as such, no matter whether it is the product of a morphological process or exhibits a form that happens to look as if it could be, play a key role” (p. 208)
- “exemplar-based networks” containing information on “phonological, graphemic, morphological, structural, grammatical, semantic and pragmatic” similarity → EVERYTHING is stored

Alternative:

- a principled distinction between the semantics and pragmatics of *-(e)l/-erl*-verbs and diminutives in general
- a more careful treatment of the diachrony of the verbs in the corpus
- a uniform treatment of *-(e)l/-erl-* as head of nP in all three classes

4. Analysis

4.1. Syntax and aspectual behavior of (*e*)*l*-verbs

Class I (deadjectival) & II (deverbal) *(e)l*-verbs are **activities**:

12) *Die Suppe hat zwei Stunden (lang)/*in zwei Stunden*
the soup has two hours long in two hours
*ge-köch-**el**-t*
PTCP-boil-DIM-PTCP
'The soup was simmering for two hours/*in two hours'

13) *Die Cora hat zehn Minuten lang/ *in zehn Minuten*
the Cora has ten minutes long in ten minutes
*ge-blöd-**el**-t*
PTCP-silly-DIM-PTCP
'Cora acted silly for ten minutes/*in ten minutes'

14) *Die Cora hat eine Stunde lang/ *in einer Stunde*
the Cora has an hour long in an hour
*ge-schreib-**erl**-t*
PTCP-write-DIM-PTCP
'Cora attempted to write/wrote inexpertly for an hour'

- Class II verbs often (but not always) differ in their argument structure, aspectual behavior, and selection of preverbs w.r.t. their (apparent) verbal base:

15) a. *Das Wasser koch-t.*
the water boil-3SG.PRES
'the water is boiling'

a'. *Das Wasser köch-**el**-t.*
the water boil-DIM-3SG.PRES
'the water is simmering'

b. *Hans koch-t das Wasser*
Hans boil-3SG.PRES the water
'Hans is boiling the water'

b'. * *Hans köch-**el**-t das Wasser*[4]
Hans boil-DIM-3SG.PRES the water
* 'Hans is simmering the water'

[4] Ok in some non-standard varieties.

16) a. *Die Livia nerv-t (herum)*
the Livia nerve-3SG.PRES around
'Livia is/acts annoying.'

a'. *Die Livia nerv-**el**-t (herum)*
the Livia nerve-DIM-3SG.PRES around
'Livia is/acts continually/somewhat annoying.'

b. *Die Livia nerv-t mich*
the Livia nerve-3SG.PRES me.ACC
'Livia is getting on my nerves, annoys me.'

b'. * *Die Livia nerv-**el**-t mich*
the Livia nerve-DIM-3SG.PRES me.ACC
Intended: 'Livia continually annoys me, continually acts annoying towards me.'

- Intransitive class I and II verbs pattern as unergatives w.r.t. attributive participles:

17) a. *das ge-koch-te/ *ge-köch-el-te Wasser*
the PTCP-boil-PTCP PTCP-boil-DOM-PTCP water
'The boiled/ *simmered water'

b. * *die ge-blöd-el-te Cora*
the PTCP-silly-DIM-PTCP Cora

c. * *der ge-funk-el-te Stern*
the PTCP-spark-DIM-PTCP star

- Austro-Bavarian/Viennese non-umlauting *-(e)l-/-(er)l-* is moreover productive in deriving (optionally expletive) verbs of emission from nouns:

18) Viennese *-(er)l-*verbs of emission:

a.	*Schweiß*	*schweiß-**l**-n*	c.	*Brand*	*brand-**l**-n*
	sweat	to smell of sweat		burning, fire	smell burned
b.	*Maus*	*maus-**l**-n*	d.	*Speibe*	*speib-**erl**-n*
	mouse	to smell of mice		vomit	to smell of vomit

19) a. *Der Hans schweiß-**l**-t.*
the Hans sweat-DIM-3SG.PRES
'Hans smells of sweat.'

b. *Es schweiß-**l**-t hier*
it sweat-DIM-3SG.PRES here
'It smells of sweat here.'

These facts suggest that our class I and II verbs are unergative activities and verbs of emission (states/activities).

4.2. Proposal

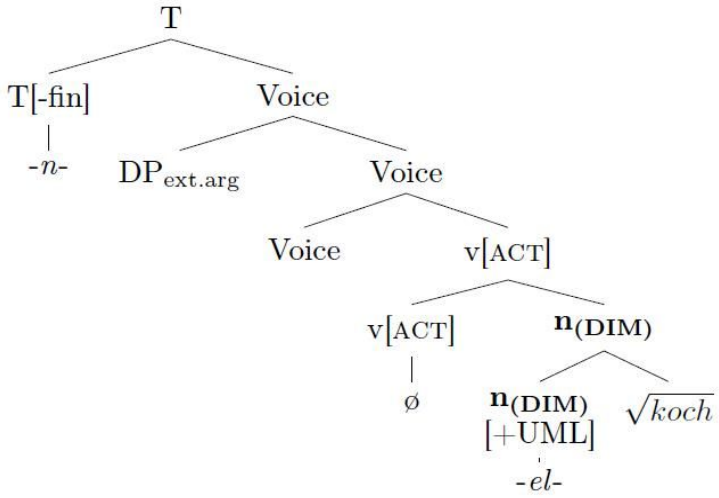
- all *-(e)l/-erl*-verbs contain a diminutive head n_{DIM}, even the "deverbal" ones of class II
- function of $\mathbf{n_{DIM}}$: individuation; creation of (countable) **units** (Borer 2005, Wiltschko 2006, De Belder 2011, Ott 2011, De Belder et al. 2014)
- $\mathbf{n_{DIM}}$ can select roots or nouns (Wiltscho 2006, Wiltschko & Steriopolo 2007, De Belder et al. 2014)
- "bleached"/grammaticalized $\mathbf{n_{DIM}}$ loses diminutive semantics > **n** (that is, no LexP/nP distinction)
- "high" $\mathbf{n_{DIM}}$ (≅ SizeP of De Belder et al. 2014) can become the input to verbalization, pace Wiltschko & Steriopolo (2007), De Belder et al. (2014):

20) a. $[optim]_{\sqrt{}}$-*ist*$]_{n}$-*el*$]_{\mathbf{nDIM}}$-*n*$]_{v}$ 'be optimistic, act like an optimist'
optim- ist -DIM -INF

b. $[brauch]_{\sqrt{}}$-*tüm*$]_{n}$-*el*$]_{\mathbf{nDIM}}$-*n*$]_{v}$ 'be overly concerned with preserving customs and traditions'
use -dom -DIM -INF

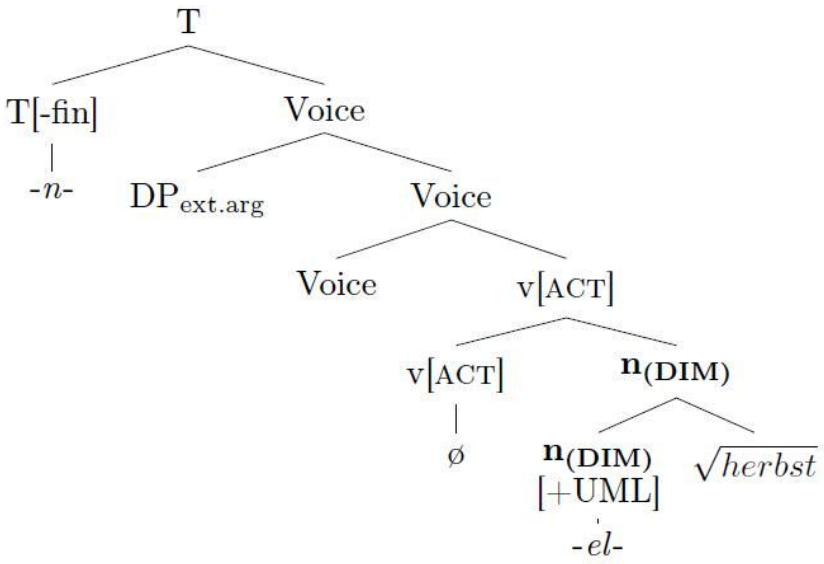
- $\mathbf{n_{DIM}}$ is then verbalized by (a particular type of) v
  - v verbalizes, but does not introduce an (external) argument, cf. Harley (2005), (2013), (2017), Alexiadou et al. (2015), Alexiadou & Lohndal (2017), Panagiotidis et al. (2017), Wood & Marantz (2017), etc.
- we formalize this as **v[ACT]**: v classifies the event as **action**; the argument merged in Spec.VoiceP is an actor rather than an agent
  - Cf. Doron 2003 on the Hebrew intensive template as introducing an actor theta-role; Harley 2005 on unergative activity verbs
  - Unlike agents, actors can be animate or inanimate → *unergative* "verbs of internal causation" & "verbs of emission" (Levin & Rappaport Hovav 1995, Rothmayr 2009), which covers almost all of our class II *(e)l*-verbs, as well as the productive Viennese *erl*-verbs of emission

21) Structure of a class II "deverbal" *(e)l*-verb: *köch-**el**-n* 'to simmer'



- diminutive semantics (“countable unit”) in (21) were reanalyzed as belonging to v → **pluractionality** (“event-internal plurality”, Tovena 2010), iteration
- the **umlaut** of class II is triggered by the presence of the (bleached) diminutive suffix, as shown by examples of denominal verbs from non-diminutive *(e)l*-stems (e.g. *Sattel* ‘saddle’: *sattel-n* ‘to saddle’, *Nagel* ‘nail’: *nagel-n* ‘to nail’), cf. (25) and umlauting denominal verbs from diminutive *(e)l*-stems (e.g., *Krümel* ‘crumb’: *krümel-n* ‘to crumble’, spread crumbs’, *Bündel* ‘bunch, bundle’: *bündel-n* ‘to bundle’, etc.), cf. (24) → evidence that the diminutive nominal projection is also present in the apparently deverbal umlauting class II
- Class Ia & IIIa verbs = same structure, accounting for the parallelism with class II:

22) Structure of class Ia & IIIa verbs: *herbst-l-n* ‘be Fall-like’ (*Herbst* = Fall), *siass-l-n* ‘act overly sweet’ (*siass* = sweet)



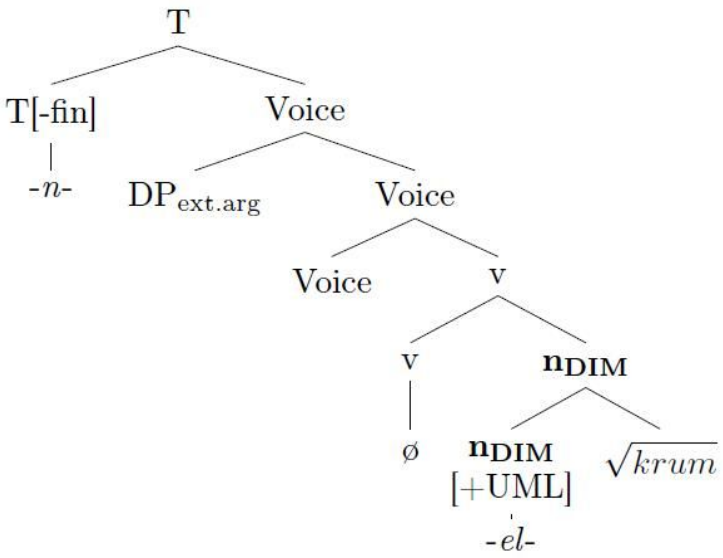
- Mostly expletive verbs, but alternate with unergative (emission verb) constructions (cf. Section 4.1):

23) *So* *schön* *herbst-**el**-t* ***unser*** ***Bezirk***
so beautifully Fall-DIM-3sg.PRES **our.NOM** **district.NOM**
“This is how beautifully Fall-like our district is.”

https://www.meinbezirk.at/moedling/c-lokales/so-schoen-herbstelt-unser-bezirk_a1906472

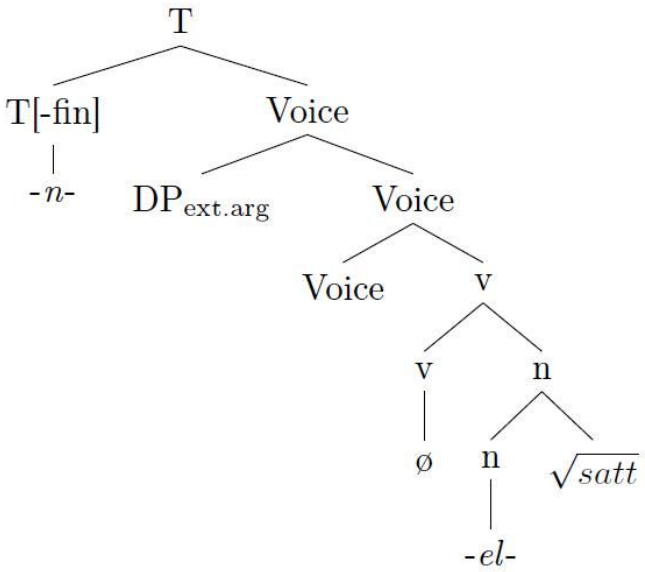
- this structure moreover allows us to maintain a compositional parallel analysis of class IIIb verbs (denominal, umlauting/non-umlauting):

24) Structure of Class IIIb verbs, with umlaut (= DIM): *krümel-n* ‘to crumble’



- Diminutive semantics follow compositionally from the presence of n_{DIM}
- Presence of n_{DIM} changes the aspectual profile of the verb: **activity**

25) Structure of class IIIb verbs, no umlaut: *sattel-n* ‘to saddle’



- No n_{DIM}, hence no iterative/attenuative/“diminutive” semantics

4.3 Evidence from diachrony

The OHG suffix *–il(a)* (whence NHG *-(e)l-*) formed diminutives from nouns and instrument nouns from verbs (Krahe & Meid 1969: 85ff., also to a limited extent primary adjectives and agent nouns)

- *–il(a)* triggers umlaut of the preceding vowel, its non-umlauting variant *-al(a)-* < **-ol(o)-* being the source of the non-umlauting Austro-Bavarian diminutive.

26) OHG *-il(a)* and *-a(la)* nouns

a.	**Base**	**Diminutive**
	busc, bosc 'bush, shrub'	*busk-**ila*** (NHG *Büsch**el*** 'tuft, bunch')
	sack 'sack, bag'	*seck-**il*** 'small sack, bag'
	(h)ring 'ring'	*(h)ring-**ila***, *(h)ring-**ilo*** 'little ring; marigold'

b.	**Base**	**Instrument noun**
	**tug/tuh-* 'pull'	**tug-**ila*** 'instrument for pulling; rein, bridle' (NHG *Züg**el***)
	slah/slag- 'slay, flay'	*sleg-**il*** 'mallet, hammer' (NHG Schlegel)
	skiob-an (**skub-*) 'move, push away'	*scūf-**la***, *scūv-**ala*** 'shovel' (NHG *Schaufel*)

- Semantically, origin of (at least some of these) functions of *-il(a)* and its PGmc. ancestor **-el(o)-*, **-il(o)-* seems to be "of X" (nouns of appurtenance):
  - *Arm* m. 'arm': *Ärm-**el*** m. 'sleeve' < 'pertaining to the arm'
  - *Eiche* f. 'oak': *Eich-**el*** f. 'acorn' < 'of/pertaining to the oak'
- "(Type) of x/(unit) of x" semantics as the diachronic origin of diminutives (and their pejorative semantics)?
  - Lat. *serv-os* 'slave' : *servo-lu-s* 'a slave not worth very much; young slave' (Plaut.), cf. Nussbaum 2009; with the same **-lo-*suffix as in PGmc. & OHG

OHG also had a complex (weak) verbal suffix *-il-ōn*, *-al-ōn*, described as "iterative" or "diminutive" in the handbooks (Wilmanns 1896: 96ff., Wissmann 1932: 27ff., Krahe & Meid 1969: 263f.) which is clearly based on diminutive/instrumental nominal *-il(a)-/-al(a)-* + the weak verb stem-forming suffix *-ōn*. Denominal and deadjectival *-il-ōn* and *-al-ōn* are found already in OHG as well as in other North-West Germanic languages and in Gothic:

27) OHG denominal/deadjectival verbs in *-il-ōn*, *-al-ōn*:

rig-il	'bolt, bar	*rig-il-ōn*	'to protect with a bar, bolt'
nag-al	'nail'	*nag-al-ōn, neg-il-ōn*	'to nail'
wort-al	'talkative'	*wort-al-ōn*	'to be talkative, talk a lot'
mihh-il	'great, big'	*mihh-il-ōn*	'to make great, to praise'

- Both diminutives and instrument nouns can and do become the basis for (descriptively zero-derived) denominal verbs throughout the history of German, e.g. *(be)äugel-n* 'to eye sth.', *würfel-n* 'throw dice', *zügel-n* 'put reins on'. The nominal suffix of these forms was liable to reanalysis as verbal suffix (cf. the development of the Greek verbalizer *-izo*, likewise of denominal origin)
- However, *-il-ōn*/*-al-ōn* was undoubtedly also deverbal already in OHG:

28) OHG deverbal *-il-ōn/-al-ōn verbs:*

kling-an	'to sound out, ring'	*kling-il-ōn*	'to sound out, ring repeatedly'
tūm-ōn	'to turn'	*tūm-il-ōn, tūm-al-ōn*	'to roar; to turn, roll'
grab-an	'to dig'	*grub-il-ōn*	'to dig at, to muse, ponder'
want-ōn	'to turn, change'	*want-al-ōn*	'change, walk, stroll around'

- Most of these do not have a synchronic *-il(a)* or *-al(a)* diminutive or instrument noun, but some do (e.g., *want-al-ōn* has *want-al* 'contact, traffic')
- It therefore seems plausible that the origin of this class was also ultimately denominal (it is not attested in Gothic), and that its ability to apparently select a verbal basis (= a root) was due to a diachronic reanalysis ("rebracketing"):

29) $[[[want]_{\sqrt{}}\text{-}al]_{N}\text{-}ōn]_{V} \rightarrow [[want]_{\sqrt{}}\text{-}al_{N}ōn]_{V}$

→ The "diminutive" feature of *-il-* and *-al-* was **reanalyzed** as part of the v/event domain; this became productive in this function in late MHG

- The fact that the majority of class II (deverbal) *el*-verbs has umlaut betrays their denominal origin
- the diachronic development of diminutives into nominalizers is cross-linguistically well attested, as is the development of pejoratives and approximatives from diminutive semantics (Dahl 2006). Our analysis thus readily derives the attenuative and pejorative semantics of the *(e/er)l*-verbs from their denominal origin.

5. Summary and conclusion

- SG/Austro-Bavarian *-(e)l-/-erl-* spells out n_{DIM} - even when there is no (synchronic) diminutive noun
- In German "diminutive verbs", this n_{DIM} selects roots which do not project. The syntactic and semantic behavior of these verbs therefore differs from verbs that are derived from the same root, but lack this intermediate nominal projection
- The event/argument structure properties of *-(e)l-/-erl-* verbs follow from the combination of n_{DIM} with higher v/Voice projection, depending on whether v[ACT] is present and whether Voice merges an external argument ("expletive Voice", Alexiadou et al. 2015)
- In denominal verbs, verbal/internal aspect reflects the properties of the nominal base
    - Cf. Harley 2005: +bounded √ → accomplishment, -bounded √ → activity
    - In addition, we have shown that it's not just the properties of the root that matter, but that nominal structure can also be present in the verbalization
- Viennese *-erl-/-l-* moreover provides a way of productively deriving unergative activity verbs

Appendix: heads vs. modifiers

Wiltschko & Steriopolo 2007: DIM differs cross-linguistically in whether it attaches as a head or an adjoined modifier, and in where it attaches/adjoins (√ vs. n)

- Halkomelem: DIM = modifier, adjoins to uncategorized root → compatible with higher a/v/n head:

30) Halkomelem DIM (Wiltschko & Steriopolo 2007)

a.	*q'a:mi* (n) girl	'girl'	*q'á-q'emi* DIM-girl	'small girl'
b.	*lhí:m* (v) picking	'picking'	*lhi-lhi:m* DIM-picking	'picking a little bit'
c.	*p'eq'* (a) white	'white'	*p'í-p'eq'* DIM-white	'a little white, whitish'

- German DIM -*erl* = head, selects n, incompatible with a or v
  - this is shown to be incorrect by the data presented in Section 2., e.g.:

31) Viennese deverbal and deadjectival -erl-diminutives

a.	*siass* (a) sweet	'sweet'	*Siass-**al** (n)* sweet-DIM	'person who acts overly sweet, friendly'
b.	*schreib-en* (v) write-INF	'write'	*schreib-**erl**-n (v)* write-DIM-INF	'attempt to write, write inexpertly'

(31b) is explicitly excluded by Wiltschko & Steriopolo. We could either

- … analyze Austro-Bav. -*erl*- as modifier, like Halkomelem DIM → but no independent evidence that -*erl*- is an adjunct rather than a head[5] or
- … analyze -*erl*- uniformly as n_{DIM} head (like NHG -*(e)l*-), which can become the input to further derivational processes such as the formation of deverbal nouns → our analysis

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[5] E.g. final devoicing, which has been argued by Wiltschko (2006) to indicate that the NHG diminutive -*chen* should be analyzed as a light noun. However, Viennese diminutives like *Wa**g**-erl* 'little wagon', *Ra**d**-erl* 'little bicycle', or *Bu**b**-erl* 'little boy' do not display final devoicing. See Ott (2011) for further arguments against the analysis of -*chen* and -*erl* as light nouns.

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