

Paradigm leveling

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Intro example 1

* Leveling of Verner's Law alternations in German strong verbs:

* MHG: *(ge)dîhen–(ge)dêch–(ge)digen–gedigen* >
MSG: *gedeihen–gedieh–gediehen*

* MHG: *verliesen–verlô**s**–verlurn–verlorn* >
MSG: *verlie**r**en–verlor**r**–verlore**n***

(MSG remnant: *zie**h**en–zog**g**; schneide**n**–schnit**t**; etc.)*

Intro example 2

Leveling of Rückumlaut alternations in German weak verbs:

MHG	MSG	gloss
<i>scherfen–scharfte</i>	<i>schärefen–schärfte</i>	'sharpen'
<i>küssen–kuste</i>	<i>küssen–küsste</i>	'kiss'
<i>tröumen–troumte</i>	<i>träumen–träumte</i>	'dream'

MSG remnant: *k**e**nnen–k**a**nn**t**e*; *b**r**ennen–b**r**ann**t**e*, etc.

Intro example 3

- * *h~ch* alternations in a variety of MHG (and OE) paradigms:
 - * IMHG *sēhen-sicht* > MSG *sehen-sieht* 'see'
 - * MHG *schuoch-schuohe* > *Schuh-Schuhe* 'shoe' (many dialects level in the other direction – yielding *-ch(-) throughout paradigm.*)
- * Remnant: *hoch/höchst* vs. *hohe(-)/höher* 'high'

Preliminary definition

- * Paradigm leveling: the elimination of stem alternations in (inflectional or derivational) paradigms

Definitional problem 1

- * What if an alternation is eliminated by regular sound change (no morphological motivation)?
- * e.g.: WGmc *sōkjan–sōhta* > Ger. *suchen–suchte*;
MHG *bōt* (pret. sg.)–*gebōten* (pret. partic) >
MSG *bo:t–gebo:ten* 'offer'
OE *pæp–papas* > ME *pap–papas* 'path'

Definitional problem 2

- * What if an analogical change includes but is not limited to the elimination of a stem alternation?

Examples:

English umlaut plurals:

OE *boc*–*bec* > *book*–*books*; *hnutu*–*hnyte* > *nut*–*nuts*, etc.

strong-to-weak verb shifts:

Eng. *glide*–*glode* > *glide*–*glided*

MHG *falten*–*fielt* > MSG *falten*–*faltete*

Revised definition

- ✱ Paradigm leveling: A morphologically motivated innovation/change that consists **only** of the (partial or complete) elimination of a stem alternation within an (inflectional or derivational) paradigm.

Theoretical interest

- * Paradigm leveling has been a recurring focus of theoretical interest in linguistics since the 19th c.
- * e.g. Paul 1886; Kiparsky 1978; McCarthy 2005; Garrett 2008; Albright 2010, and many others.

Some theoretical questions, 1

- ✱ Must we assume a universal preference for non-alternating stems (or morphemes) in order to account for paradigm leveling?
- ✱ (If so, can we generalize further to a "one-form-one function" preference?)

Some (related) theoretical questions, 2

- * Does the (alleged/apparent) universal bias against stem alternations take the form of:
 - * a constraint of synchronic grammar (OT)?
 - * an acquisition bias ("Principle of Contrast")?
 - * a processing bias (non-alternating stems are inherently easier to process)?

Evidence of a synchronic grammatical constraint against stem alternations (?)

- * Leveling of phonologically conditioned (including "allophonic") alternations (see also Steriade 2000):

ŋ~*ŋg* in modern English:

eModE *sing* /ŋ/–*singer* /ŋg/ > *sing* /ŋ/–*singer* /ŋ/
(compare *long* /ŋ/–*longer* /ŋg/)

Canadian raising:

write–*writer* /ɪaɪt/–/ɪaɪtə/ > /ɪaɪt/–/ɪaɪtə/

Split-æ alternation in Mid-Atlantic U.S.: *pad*–*padding*

Devoicing of medial fricatives in Dutch (?)

German *h*~*ch* (?)

Over- vs. underapplication

- * What do you think OT practitioners mean when they contrast leveling by overapplication with leveling by underapplication?
- * Why would McCarthy propose an "overapplication only" principle?

Some (related) theoretical questions, 3

- * Is paradigm leveling (merely) "proportional"?
- * i.e.: Does it – like most other analogical change in morpho(phono)logy – simply amount to the extension of a pattern that just happens to be non-alternating?
-Cf. Garrett 2008:142: "pure leveling does not exist and . . . the emergence of paradigm uniformity is always the imposition of an existing (uniform) pattern on a non-uniform paradigm."
- * This position (see also Paul 1886; Hill 2007; Wurzel 1984; Albright 2010 and elsewhere) challenges the need for any kind of universal bias against stem-alternations.

We will return...

- * ...to some of these theoretical questions in tomorrow's class on markedness.
- * Today, we will focus on the last question: the adequacy of purely "proportional" accounts of leveling.

"Proportional" analogy

- * Paul's (1886) proportional-equation notation:
 - * $A : B = C : X$, e.g. *ride : rode :: dive : X* ($X=dove$)
- * reflects a strict word-and-paradigm model of morphology.
- * In more theory-neutral terms, the basic point is that analogical innovations (always) reflect the application of an existing rule/pattern to a new item/domain.
- * (Compare the alternative "assimilatory" conception of analogical change, according to which it reflects the influence of forms on related forms.)

Regularizing vs. non-regularizing leveling

Even under our revised definition, most familiar instances of leveling also constitute regularization. These cases are always readily amenable to a proportional account – with no need to posit any kind of bias or preference for non-alternation.

Examples of regularizing leveling, 1

(From earlier: elimination of Rückumlaut; many eliminations of *h~ch* alternations)

Vowel length and consonant voicing alternations in Eng. weak verbs:

believe-beleft > *believe believed*; *deem-dem(p)t* > *deem-deemed*

Vowel alternations within pres. tense of German verbs:

MHG (*ich*) *giuze*–(*wir*) *giezen* > *gieße*–*gießen*

MSG *fahren*–*fährst*–*fährt* = dialectal *fahren*–*fahrst*–*fahrt*

Umlaut in English comparatives/superlatives:

old-elder-eldest > *old-older-oldest*

Examples of regularizing leveling, 2

- * simplex/geminate in OHG *ja*-stem nouns
eOHG *beti–bettes* > *betti–bettes* 'bed'
- * Umlaut in gen./dat sg. of OHG *n*-stem nouns:
eOHG *hano–henin* > *hano–hanin/hanen* 'rooster'

Partial leveling (the main kind of non-regularizing leveling)

- * Two types:

- * 1) Alternation eliminated only in part of paradigm:

- * e.g.: within preterite of strong verbs:

MHG: *bieten*–*bô*t–*buten*–*geboten*

> MSG: *bieten*–*bot*–*boten*–*geboten*

- * 2) Only some aspects of an alternation are eliminated:

e.g.: IMHG *le*ːsen–*l*ist > MSG *le*ːsen–*li*ːst <liest> 'read'

Partial leveling is potentially problematic...

- * ...for any "proportional" account of paradigm leveling because the new (partially leveled) pattern of alternation would have to already occur elsewhere in the language:
- * This is no problem in some cases: OE *frēosan–frozen* > IME *frēsen–frōsen* 'freeze' – existing models for the new pattern include *bēodan–boden* 'offer'
- * But what about: *leːsen–līst* > *leːsen–liːst*

Type-1 partial leveling in Yiddish irreg. verbs:

infinitive	gebən 'give'	visən 'know'
1sg	gib	veys
2sg	gist	veyst
3sg	git	veys(t)
1pl	gibən	veysən
2pl	git	veyst
3pl	gibən	veysən
sg. imp.	gib	veys
past partic.	gegebən	gevust

Type-1 partial leveling is unproblematic...

- * ...for proportional accounts, so long as the part of the paradigm affected by the leveling becomes regularized (as in the Yiddish example above).

Type-2 partial leveling in some OE/OHG weak verbs

- * eOE *cweccan–cweahte* > IOE *cweccan–cwehte* 'quake', (similarly *dreccan* 'afflict', *leccan* 'moisten', *reccan* 'narrate', *streccan* 'stretch', *peccan* 'cover', *weccan* 'awaken')
- * orig. OHG *decken–dahta* > Bav./Frk. *decken–dacta* (similarly *lecken*, *(ir)rechen* 'reach, achieve', *smecken* 'taste', *strecken*, *wecken*)

More examples of type-2 partial leveling

MHG *sitzen-gesëzzen* > dialectal *sitzen-gesetzen*

eME *chēsen-coren* (/k-/) > IME *chēsen-choren* >
chēsen-chosen

ME *swer(i)en-sor(e)n* > ModE *swear-sworn*

- * Which of these examples are problematic for a proportional account?

Other types of non-regularizing leveling

- * Some hypothetical examples:

child-children > /tʃaɪld/–*/tʃaɪldʁən/

long-length > *long*–**length* (etc.)

mean-meant > /miːn/–*/miːnt/ (etc.)

groß-größt- > *groß*–**großt-* (vs. *großest-*)

The fact that these changes are (as far as I know) unattested might be cited as support for a proportional account of leveling.

But some cases of partial leveling...

- * truly do appear problematic for a purely proportional account:

leːsen-līst > leːsen-liːst

cweccan-cweahte > IOE cweccan-cwehte

- * Similar examples from other languages lead Kiparsky (1992:58) to assert: "LEVELING...is 'non-proportional' because it does not require a non-alternating model paradigm", and that "partial leveling [...] is especially recalcitrant to proportional treatment".

- ✱ If (some) paradigm leveling does have a non-proportional aspect to it, what kind of mechanism could account for this aspect of leveling.
- ✱ Remember: One of the most attractive things about the idea of proportional analogy is that the mechanism is so straightforward:
Speakers guess at forms that they don't know, based on patterns they've discerned across forms that they do know.
- ✱ This mechanism isn't available for "non-proportional" innovations.

The mechanism of folk etymology:

"It is entirely normal that people do not perceive the words that they hear exactly, in accordance with their sound components, but rather partially guess at them, usually supported by the meaning expected from the context. Naturally, people's guesses favor sound complexes that are already familiar to them, and in this way a meaningless part of a larger word can – already at the first hearing – be replaced by a similar sounding common word." (Paul 1886[1920: 221])

Paul puts it in terms of mishearing. In many cases, it may be more a matter of **phonological reanalysis**:

A hearer accurately hear what sounds a speaker has produced, but – biased by related forms – the hearer has innovative ideas about what sounds the speaker was really shooting for – cf. Ohala's (1993) hypercorrection and hypocorrection.

Examples of folk-etymology

Eng. *bridegroom* < *brȳd* 'bride' + *guma* 'man', *r* inserted due to association with unrelated *groom*

Eng. *fore**most***, *ut**most***, etc. < OE *m-est* (cumulative superlative ending), changed to *-most* due to association with unrelated *most*

Eng. *land lover* < *land lubber*, *winfall* < *windfall*, etc.

Ger. *Einöde* < MHG *einœte* 'middle of nowhere', *d* > *t* due to association with unrelated *Öde* 'barrenness'

What kinds of phonological reanalysis are going on in the examples on the last slide?

How could these kinds of reanalysis be relevant to (the non-proportional aspect) of paradigm leveling?

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