STAYING WEIRD: ANALOGICAL CHANGE IN HIGH-FREQUENCY FORMS

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OVERVIEW

Part I: Some differing views on the connection between high token frequency and resistance to analogical change

Part II: Analogical change in high-frequency forms – some examples from Germanic languages

Part III: Two reasons why high token frequency might be conducive to certain kinds of analogical change

PART I
SOME DIFFERING VIEWS ON THE CONNECTION BETWEEN HIGH TOKEN FREQUENCY AND RESISTANCE TO ANALOGICAL CHANGE

BYBEE 2006

"the CONSERVING EFFECT [...] High-frequency sequences become more entrenched in their morphosyntactic structure and resist restructuring on the basis of productive patterns that might otherwise occur. [...] My proposal to explain this tendency (Hooper 1976, Bybee 1985) is that frequency strengthens the memory representations of words or phrases, making them easier to access whole and thus less likely to be subject to analogical reformation." (Bybee 2006:715; cf. Bybee 2015:95)

PAUL 1877

"Aus der wechselbeziehung zwischen gedächtnis und analogie folgt, dass diejenigen formen am wenigsten der gefahr ausgesetzt sind durch neubildungen verdrängt zu werden, welche sich dem gedächtnisse am stärksten einprägen, [...] durch die häufigkeit des gebrauches. [...] Und ihre anomalie besteht ja eben darin, dass sie sich der sonst das formensystem der sprache beherschenden nivellierungstendenz entzogen haben." (Paul 1877:329)

WHEELER 1887

“”Irregular” inflections generally appear in much-used forms, the reason being that these, as strongly impressed upon the memory by constant use, resist change.” (Wheeler 1887:39)

KRUSZEWSKI 1890

“Es ist augenscheinlich, daß sich solche Wörter dem Gedächtnis fester einprägen, die man sehr oft gebraucht. Deshalb bieten stets […] gerade die gebräuchlichsten Wörter […] die bedeutendsten Abweichungen und Unregelmäßigkeiten dar; ihre Formen zeichnen sich durch die größte Altertümlichkeit aus […] Wie erklärt sich nun das? Nur dadurch, daß wir, indem wir solche Formen oft gebrauchen und deshalb fest im Gedächtnis behalten, dieselben […] nach unserm Gedächtnisse reproduzieren und uns gar nicht darum kümmern, daß sie schon seit lange mit den übrigen Formen unsrer Sprache zu harmonieren aufhörten.” (Kruszewski 1890:139)

KIPARSKY 1978

"The innovations most likely to succeed would be the least 'blatant' or 'salient' ones, for they have the best chance of surviving the language learners' own efforts to accommodate their speech to the community norm, and are also least likely to provoke outright correction or ridicule by other speakers. […] An innovation in a frequent form is more salient than an innovation in a rare form." (Kiparsky 1978:86–7)

YANG 2002

"Pinker links input frequency to the success of irregular past tense (memory imprint). Again, this correlation is also expected under the R[ules and] C[ompetition] model: low frequency verbs give the learner little clue about class membership, […] loss of irregularity is a result of sampling effects and competition learning over time." (Yang 2002:96)

PART II
ANALOGICAL CHANGE IN HIGH-FREQUENCY FORMS – SOME EXAMPLES FROM GERMANIC LANGUAGES

PROTO-GERMANIC DAT. SG. PERSONAL PRONOUNS

	1st	2nd	reflexive
Pre-Gmc.	*me	*te	*se
Proto-Gmc.	*miz	*þiz	*siz

GOTHIC 2ND SG. PERSONAL PRONOUNS

	Nom.	Dat.	Acc.
proto-Gmc.	*þu	*þiz	*þik
Gothic	þu	þus	þuk

GERMAN 2ND PL. PERSONAL PRONOUN

	Nom.	Gen.	Dat.	Acc.
Proto-Gmc.	*jūz	*izwara	*izwiz	*iz (?)
OHG	Øir	iuwēr	iu	iuwih

OHG/OE 1ST/2ND ACC. PL. PERSONAL PRONOUNS

	1st	2nd
proto-Gmc.	*uns	*iz (?)
OHG	unsih	iuwih
Old English	ūsic, ūs	ēowic, ēow

Proto-Germanic demonstrative

Sing.	M	N	F
N	sa	þat	sō, sjō
G	þes(a)	þes(a)	þezōz
D	þemmo	þemmo	þezāi
A	þan	þat	þō(m)

Old High German demonstrative

Sing.	M	N	F
N	dër	daȝ	diu
G	dës	= M	dëra
D	dëmu, dëmo	= M	dëru
A	dën	daȝ	dea, dia (die)

Proto-Germanic 3rd sg. personal pronoun

Sing.	M	N	F
N	iz	it	si
G	is(a)	is(a)	izōz
D	immo	immo	izāi
A	in	it	ijō(m)

OHG 3rd sg. personal pronoun

Sing.	M	N	F
N	ër	iʒ	si, siu
G	—	ës (is)	ira
D	imu, imo	= M	iru
A	inan, in	iʒ	sia, (sie)

SOME TOP-TEN LISTS (VERB FREQUENCY)

COCA (450 million words)

rank	verb	# of tokens
1	be	12,545,825
2	have	4,303,955
3	do	2,573,587
4	say	1,915,138
5	go	1,151,045
6	can	1,022,775
7	get	992,596
8	would	925,515
9	make	857,168
10	know	892,535

Early Mod. Nuremberg (479,541 words)

rank	verb	# of tokens
1	sein	10,440
2	haben	9,522
3	werden	3,798
4	wollen	3,648
5	sollen	2,407
6	lassen	2,100
7	kommen	1,995
8	tun	1,995
9	schreiben	1,808
10	geben	1,668

PRESENT INDICATIVE OF ‘TO BE’ IN OE

	Gothic (< PGmc.)	Old English (non-*b*- forms)
1s	im	**ēo**m
2s	is	ear**t**
3s	ist	is
3p	sind	sind, sind**on**

PAST PARTIC. OF ‘TO BE’ IN NUREMBERG

	gewest	gewesen
1356–1470	13	49
1471–1543	329	75
1544–1619, non-student males	145	97
1544-1619, women & students	16	245
present-day dialect	X	✓

PRET. SG./PL. OF GERMAN *WERDEN* VS. OTHER CL.-III STRONG VERBS

	werden	werfen
MHG	ward/wurden	warf/wurfen
Mod. German	w**u**rd**e**/wurden	warf/w**a**rfen

EMERGENCE OF VOWEL ALTERNATION IN PRETERITE OF *TUN* IN OHG/OS

	(pre-)proto-Gmc.	OHG	OS
1/3s indic.	*dedē	tëta	deda
2s	*dedēz	tāti	dedos, dādi
1p	*dedum/d/n	tātum/t/n	dedun, dādun
1/3s opt.	dedī-	tāti	dedi, dādi

ROOT VOWEL OF PAST PARTIC. OF *TUN* IN NUREMBERG

	a/o	u
OHG/MHG	✓	X
1471–1619 Nuremberg **men**	249	14
1471–1619 Nuremberg **women**	19	85
modern Nuremberg dialect	X	✓

EMERGENCE OF ROOT-VOWEL ALTERNATION IN GERMAN *MÖGEN*

(indicative)	1/3s pres.	1/3p pres.	1/3s pret.
Gothic	mag	magum	mahta
early OHG	mag	magum	mahta
later (Franc.) OHG	mag	mugum	mohta

LEVELING OF ROOT-VOWEL ALTERNATION IN GERMAN *SOLLEN*

indicative, infinitive	1/3s pres.	3p pres.	infinitive	1/3p pret.
early OHG	scal	sculun	scolan	scolta
late OHG/ MHG	sol	sul(e)n	soln/suln	solta/solde
16th c.	soll	sollen	sollen	sollte

REALIGNMENT OF ROOT-VOWEL ALTERNATION IN GERMAN *WOLLEN*

	3s pres. indic.	3p pres. indic./ infinitive	1/3s pret. indic.
earliest OHG	wili	wellen(t)	wëlta
OHG/MHG	wil(i)	wellen(t)	wolta/e
modern Ger.	will	wollen	wolte

EMERGENCE OF UMLAUT IN THE PRES. INDIC. PL./INFIN. OF GERMAN PRETERITE-PRESENTS

earlier MHG	later MHG
kunnen	k**ü**nnen
durfen	d**ü**rfen
suln	s**ü**ln
muoʒun (OHG)	m**üe**ʒen

WISSEN FROM EARLY MHG TO MODERN GERMAN

	earlier MHG	later MHG	modern German
infinitive	wiȝȝen	wiȝȝen	wissen
1/3s pret. indic.	wisse/wësse	wiste/wëste	wuste (<wusste>)
1/3s pret. subj.	wisse/wësse	wiste/wëste	wüste (<wüsste>)
pret. partic.	(gewiȝȝen)	gewist/gewest	gewust (<gewusst>)

PART III

TWO REASONS WHY HIGH TOKEN FREQUENCY MIGHT SOMETIMES BE CONDUCIVE TO ANALOGICAL CHANGE

REASON 1: MORPHOLOGICAL VARIATION AND CHANGE MEET SOCIAL MEANING

Familiar accounts of the frequency-irregularity connection all regard analogical change as basically a reflection of incomplete learning.

Operative assumptions:

- Speakers/learners are always trying to conform to prevailing usage.
- Analogical innovations occur when they fail in this effort.

BUT...

... we know that speakers sometimes:

1. innovate deliberately and (probably much more often) copy forms they hear from others that they know to be at odds with prevailing norms.

2. exploit high-frequency variables to index social meanings and construct linguistic identities.

REASON 2: PHONETIC REDUCTION MEETS PHONOLOGICAL REANALYSIS

High-frequency forms are famously vulnerable to **phonetic reduction**.

Many well-known inflectional anomalies in high-frequency forms reflect the direct (non-analogical) effects of such reduction:

(*have–has-had*; *haben–hast–hat*; etc.)

BUT…

… much of the analogical change seen in high-frequency forms could plausibly be attributed to indirect effects of phonetic reduction…

- …as learners guess at canonical representations for forms of which they rarely hear any unreduced tokens…
- …and their guesses are biased by generalizations they have made about the form system they are acquiring.

	"proportional" analogy	perception-based "non-proportional" analogy
innovators are guessing at	unknown forms	canonical representations for known forms
token-frequency effect	most likely in lowest-frequency forms	most likely in highest-frequency forms (due to prevalence of phonetic reduction)

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 […]" (Paul 1886:183, translation from Fertig 2015:219).

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