Germanic *ga-: What happened?
Anatomy of gain and loss

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Remember the 1st, last year?
CHANGE FOR THE WORSE

Und wo bleibt das Positive, Herr Seiler?

LoFuM: "a particular type of language change where formerly transparent functional motivations for a structural pattern become obsolete, while the pattern itself [or the forms formerly forming the pattern? – FP] survives, despite the decline of the factors once motivating it"

Is LoFuM instantiating something that in some circles has been called PERTINACITY? – forms/meanings, rules, constraints, constructions, paradigmatic systems retained longer than others across cycles of L1/L2 acquisition, thereby shaping synchrony more decisively than others

The concepts of JUNK/BRICOLAGE and EXAPTATION come to mind, too: "an important property of evolving systems (not only linguistic ones): useless or idle [= LoFuM-med] structure has the fullest freedom to change, because alteration in it has a minimal effect on the useful stuff" (Lass 1990: 98)

"To mention just one example from morphology, in older stages of German, the participial *ge-* prefix used to express perfectivity [...]. In present-day German, by contrast, this perfectivizing function has been lost. Nonetheless, the prefix itself has been retained, but its distribution is now governed by purely [?] prosodic constraints [...]."

Is **this** the gist or the highlight of the (long) story of German *ge-*?
Here are some relevant happenings retold – and what we might want to know, or ask, about them, in case LoFuM doesn't tell it all.

I. The (presumed) ur-ancestor: Proto-IE *$\acute{k}om$

an adverb/preposition/preverb, meaning 'with, near, beside, along' (CONCOMITANCE polysemy: comitative, instrumental, local/temporal adjacency, possession, union, collective ...)

cf. Lat *cum* preposition, *co(n)* prefix 'with'
cf. AGk *koin-ós* 'common, ordinary'
cf. OIr *co n-* preposition 'to(ward), with', conjunction 'until'
...

II. Proto-Gmc *ga-* /ɣɑ/

- attested in **all** old Gmc languages (EGmc, NGmc, WGmc):
  Go *ga-*; ON *g-*; OE *ġe-*, OFris *ge-/e-*, OS *ga-/gi-/ge-*, OHG *ga-/gi-*, ODu/MDu *ghi-/ghe-*

- a derivational (?) prefix, used with all kinds of content word classes (nouns, verbs, adjectives, adverbs) of bases and derivatives

- suggested meanings: (i) 'togetherness, association' (CONCOMITANCE)
  (ii) 'perfectivity, resultative' (COMPLETION)

☞ From Proto-IE to Proto-Gmc: grammaticalisation?

- preverbation and univerbation of an adverb/preposition, originally so loosely attached as to permit tmesis and endocliticisation (e.g., Go *ga=u=laub-eis ga*=QU=2SG.IND.PRES 'do you believe') and also iteration (e.g., Go *ga-ga-leik-on sik ga-ga*-change-INF REFL)

- semantic enrichment, rather than "bleaching", with 'completeness' and 'perfective, terminative, resultative', a specialised ASPECTUAL verbal sense, added to or even superseding CONCOMITANCE
  (One polysemous *ga-* or two or more homonyms? Note word-class versatility)

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III. Proto-Gmc to ModGmc

III.1. Some fossilised form survivals in all Gmc languages, hardly segmentable and at best opaquely reflecting erstwhile meanings:

E *enough < ġe-nog < *ga-nok* 'completely reached/attained';
everywhere < æfre ġe-whær;
handiwork < hand-ġeweorc;

E *glove* < OE *glōfa/glōfe*, Icel *glófi*, Far *glógvi* < ON *glófi < *ga-lōfô* 'with palm of the hand' (covering for ...);

G *gar < *garwaz < *ga-arwaz* 'ready, done, fast';
*gleich < g(e)-līch < gi-līh < *ga-likaz* 'alike, similar'; cf. Go *galeiks*,
OE *ġe-liċ > a-like*, Icel. *(g)líkr* (Sw *lik*, Dan *lig*)
*gemein < *ga-mainiz* 'communal, common, ordinary' (Lat *com-mūnis*);
*Glaube(n) < ge-laube < gi-laubo < *ga-laubą* '?-permission'.

☞ reflexes of form retained, but pattern cohesion lost, because of reanalyses/metanalyses of form or alteration or loss of stems the prefix used to combine with

III.2. Sometimes clear segmentability, but relation between *ge-* word and corresponding simplex, if one exists, not easily subsumable under one or another current or possible former productive semantic pattern – exemplified from German, perhaps the Gmc language richest in such erratic descendants of **ga-*:

A ← A, N, V: *ge-treu – treu, ge-lind(e) – lind, ge-wahr – wahr, ge-trost – Trost, trösten, ge-raum – Raum, ge-heim – Heim, heim, ge-nehm – nehmen, ge-lassen – lassen*

V ← V: *ge-denken – denken, ge-ruhen – ruhen, ge-fallen – fallen, ge-stehen – stehen, ge-hören/horchen – hören/horchen*;
ge-nesen (PIE **nesaną* 'overcome, survive, recuperate'), *ge-schehen, Ge-schichte* (†*schehen/schicken*), *gebären, Geburt* (< OHG *giburt*, OE *ġebyrd*, Go *gabaurþs* < **ga-burþiz*, V **ga-beraną* 'to bear and bring forth [a child]')

N ← N, V: *Ge-halt* (*– halten*),
Ge-selle (**saljô* 'housemate'), *Ge-nosse* (PGmc **ga-nauta* 'co-cattle-owner', OE *ge-nēat*, cf. *genießen, nutzen*), *Ge-sinde* (†*sind* 'Weg, Richtung', cf. *senden*), *Gevatter* (< **ga-faderô* 'godfather, uncle'), *Ge-spenst* (†*spanen*, cf. *ab/wider-spenst-ig*), *Ge-mahl* (OHG *gi-mahalen* 'to come to terms [over giving/taking a wife]', cf. *ver-mählen*), *Geschäft* (< OHG *gi-scaft*, ME *ʒe-scafte, i-scefte* < OE *ġe-sċeaft* < **ga-skaftiz* < **ga-skapjaną-þiz* 'creation')

☞ lexicalisation (idiomatisation): to account for such erratic blocks, one would assume there once were productive morphological patterns, now lost, and prefixing *ge-* did make sense(s) patternwise.

If this were all there is: Why only debris left now?
Answer: This would be a typical LoFuM state of affairs.

But the real questions for morphology would still need answering:
- Why is the **productivity**, of a particular morphological category, dwindling at some point, to the extent even that a rule is lost entirely?
  (Are expressive needs dwindling? Has some saturation point been reached?
  Are superior competing means of expression (becoming) available?
  Are old forms of expression being impaired? ...)
- How do (so many) relics manage to survive?

III.3. Form lost, obliterated in different ways

- East Gmc: developments nipped in the bud by all languages of this branch going extinct; in Gothic, *ga-* use would still have seemed healthy

- North Gmc: lost everywhere, and quite early – through phonological segment effacement: loss of unstressed vowel, then onset cluster simplification: *gə-C/V... > g-C/V... > C/V...*; *g-* longest retained before /l, n/

- West Gmc: loss through phonological effacement of segments (glide < fricative < plosive, central < front, back vowels) subject to prosodic conditions – but yet further variations on this theme:

    English: palatalisation, then loss first of glide and then of vowel

    jə-STEM > *i*-STEM > STEM

    (part of general post-OE demise of prefix system, with variations as to prosodic environments – and with *jə-* the weakest of the lot)

    Low German: prefix first **en**cliticised, then loss of onset consonant and vowel, i.e., prefix phonologically **left**-associated with preceding word, mismatching morphosyntactic phrasing:

    X *ɣə*-STEM > X=*ɣə* STEM > X=*ə* STEM > X STEM

III.4. But why *ge-* /gə/ not equally lost in High German?

　　　　　　　　　　　　　　　– especially in palatalising dialects where *ge-* /jə/

an (TO ni a) (HÄT te ge) (GLAUBT) ‖ von (AN ton ge) (LIEBT zu wer den) ‖

(AL le) (HOFF nuŋ en) (SINT ihm ge) (SCHEI tert) ‖

(DAS war ne) (SCHWE re ge) (BURT •) ‖

And in Dutch too, where *ge-* is /ɣə/?

(HEB je) (GOED ge) (SLA pen) ?

phonologically phrased in trochaic/dactylic tone groups/Satztakte just as in Low German – as argued by Eduard Sievers, like Henry Sweet before and Franz Saran et multi alii after (including Lahiri & Plank 2010)

Survival simply for phonological reasons, with /g/ inherently more resistant than /ɣ, j/, and with schwa here somehow stronger than in NGmc?

In fact, (Old to New) High German sees *ge-* **prospering** rather than languishing
– gaining ground by (re-)diversifying across word classes:

- verbal

    (i)   ASPECTUAL prefix: perfective/completive/resultative, originally continued
          from PGmc, as imperfectly as ever (over-/under-use)
    (ii) extended to mark PARTICIPLE II, added on to PRTCPII suffixes *-en/-t* (thus creating
          a circumfix), regardless of whether or not a verb takes PERF aspect *ge-*:
          ge-geb-en, *ge-leb-t*

- nominal, both denominal and deverbal

    (i)   collective nouns (denominal), in association with *-e* (circumfix here too);
          also *Ge-...-t/-de*, but only relics such as *Hof – Gehöft*, *Bau – Ge-bäu-de*):
          Berg – Ge-birg-e, *Ast – Ge-äst-Ø*   (presence of nothing, namely zero, or absence
                                                   of something, namely a suffix to partner *Ge-*?)

    (ii) "Vorgangskollektiva" (deverbal), likewise in association with *-e*

	(ii.a)		(ii.b)
verb	REPEATED/CONSTANT ACTION	→	RESULT
brüll-	*Ge-brüll-e*		*Ge-brüll*
'roar'	circumfix		prefix only, suffix suppressed (or zero?)

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Nonetheless, **losses** here, too – though not primarily through phonological effacement:

- **discontinuation** of aspectual verbal *ge-* (e.g., OHG *swîgan* 'be silent' – *gi-swîgan* 'fall silent'), bar a few individually transparent relics (e.g., *frieren – ge-frieren*) – something never fully systematic, with PERF *ga-* both under- and over-used since earliest Gmc times (thwarting aspectual interpretations from Jacob Grimm onwards);

  with this semantic function, imperfectly executed, superseded (since OHG) by a morphosyntactic function, as *ge-* got reanalysed as exclusively the exponent of a non-finite inflectional category, PARTICIPLE II, whose semantics, RESULTATIVE (rather than PERFECT and/or PASSIVE), is arguably related to the erstwhile aspectual one.

☞ eventually (MHG, eNHG) resulting in a single, though clearer functional motivation of verbal *ge-*
  – if at the expense of removing this one inseparable prefix from the functional domain(s) of aspect/Aktionsart, transitivisation, and noun classification that the other central inseparable prefixes (*be-*, *er-*, *ver-*, *zer-*, *ent-*) are subserving

- **suppression** of PRTCPII *ge-* on the **prosodic** condition that main stress is not on the first syllable of the verb – regardless of what it is that separates *ge-* from the stressed syllable, a stress-attracting verbal suffixes or an intervening further unstressed prefix:

  *ge-trom.PE.t-et, *ge-ka.PIER-T, *ge-ver-LO.r-en, ...   (ge-be.ne.DEI-T)
  → trom.PE.t-et, ka.PIER-T, ver-LO.r-en, ...   (be.ne.DEI-T)

This is **not** loss of *ge-* through phonological segment effacement!

A gradually emerging constraint, early beginnings, but not yet entrenched in MHG, eNHG:
  ge-stu.DIER-T, ge-fa.bri.ZIER-T, ge-re.GIER-T, ge-pro.phe.CEY-T, ...

Reason why: foot structure?
Trochees preferred, but anacrusis syllables to be minimised.
    *ge trom (PE tet), *ge ka (PIERT •), *ge ver (LO ren)
    → trom (PE tet), ka (PIERT •), ver (LO ren)

Prosodic constraint not applicable to deverbal *Ge-* action collectives:
  Ge-trom.PE.t-e, Ge-ju.bi.LIE.r-e, Ge-zer-STÖ.r-e, Ge-ge-FRIE.r-e, ...

- complex developments of PRTCPII *ge-* in Bavarian (an Upper German dialect): prosodic suppression (i); phonological weakening and partial effacement (ii-iii); category replacement (iv):

(i) suppression unless main stress on following syllable, as in Standard High German

    (*g-)ɛɐ-ˈleː.dɪg-t   (*ge-)er-LE.dig-t
    (*k-)fɐ-ˈsʊ.f-ɐ   (*ge-)ver-SO.ff-en
    (*k-)ʃtu.ˈdɪɐ-t   (*ge-)stu.DIER-T

(ii) loss of schwa: prefix /g/ vowel-less underlyingly, rather than through elision
    (Note: not in lexicalisations nor in collectives: gə-poɐ-n, gə-pɪɐ-g = ge-bor-en, Ge-birg-e)

    k-sʊf-ɐ   ge-soff-en
    oː-k-frɛs-n   an-ge-fress-en
    g-nʊm-ɐ   ge-nomm-en
    g-hɛɐ-t   ge-hör-t
    g-wuːn-ɐ   ge-wonn-en
    g-ʼɑkɐ-t   ge-acker-t   [gʼ] ejective!

(iii) complete place (and voice) assimilation to plosives, including affricates:
in some varieties (Upper Austria, Central Bavaria) realised as initial geminates,
but mostly degeminated

p-pɑːx-ɐ	ge-back-en	[pɑːxɐ] INF – [ppɑːxɐ] PRTCPII
p-pɑk-t	ge-pack-t	etc.
t-triːb-n	ge-trieb-en	
k-keːm-ɐ	ge-komm-en	
g-gɑkɐ-t	ge-gacker-t	
p͡f-p͡fɪf-ɐ	ge-pfiff-en	
t͡s-t͡sɔɐg-t	ge-zeig-t	

cont'd ...

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(iv) modal verbs, main causative verb, main inchoative verb:
     they should have some reflex of /g-/ – but they don't

mɪɐs-n	ge-muss-t	*g-mɪɐs-n
keːn-ɐ	ge-konn-t	*k-keːn-ɐ
tɛɐf-ɐ	ge-durf-t	*t-tɛɐf-ɐ
mɛŋ (< mɛg-n)	ge-moch-t	*g-mɛŋ
vɔl-n	ge-woll-t	*g-vɔl-n
sɔl-n	ge-soll-t	*k-sɔl-n
lɑs-n	ge-lass-en	*g-lɑs-n
vɔr-n	(ge-)word-en	*g-vɔr-n

Why? Do these verbs in fact **have** a PARTICIPLE II, or do they replace it by the INFINITIVE?

Encouragement for categorial replacement might have come from the "Ersatzinfinitiv" construction (INF for PRTCPII; cf. Standard High German *Ich habe lachen gemusst →müssen* 'I have had to laugh', *Ich habe sie sehen gekonnt→können* 'I have been able to see her', *Er hat mich kommen gelassen→lassen* 'He has let me come'), which is applied more generally in Bavarian than in Standard High German, even when no further infinitive is around in the verbal chain (cf. *Er hat heim gemusst→müssen* lit. 'He has must home', *Sie hat ihn in Ruhe gelassen→lassen* lit. 'She has let him in peace').

For inchoative *werden*, encouragement might have come from passive auxiliary *werden*: only the former has a *ge-* PRTCPII in the Standard language:
Er ist alt ge-word-en 'He has grown old', *Er ist gesehen word-en* 'He has been seen'. Bavarian has generalised the unprefixed form.

Also, note the suffix: While modals have weak *-t* in Standard German, Bavarian generalises strong *-en* here – which is homonymous with the INF suffix.

So, it looks like a good case can be made for *ge-* loss through **replacement of morphological categories**.

IV. *ge-* and its partners in circumfixation: Origins and progress

IV.1. Origins: suffix first, prefix added later – Is this how the rare exponent type of circumfix **always** comes about?

- PARTICIPLE II *ge-…-en/-t*:

  PRTCPII suffixes first;

  prefix added: old verbal perfective markers borrowed and generalised to all verbs;

  prefix "lost" in certain circumstances

- denominal COLLECTIVE nouns in *Ge-…-de/-t*, *Ge-…-e*:

  denominal COLL suffixes first (< OHG *-idi*, *-ahi*; *-i* < *-jo*, all NEUTER);

  prefix *ge-* added, = PIE heritage, gender continues to be determined by suffix (head)

- deverbal ACTION COLLECTIVE nouns in *Ge-…-e*:

  deverbal suffix first (< OHG *-jo*), deriving NEUTER nouns;

  prefix *ge-* added, generalised from denominal COLL nouns, whose bases were often ambiguous between noun and verb (e.g., *Ge-bild-e*, *Ge-fäll-e*, *Ge-spött*)

IV.2. Progress: loss of suffix part of circumfix, in two different ways

- "loss" of suffix *-e* in some, but not all denominal COLL nouns
  has a phonological rationale: *-e* retained to prevent final devoicing

Ge-birg-e	Ge-äst-Ø
Ge-fild-e	Ge-zeit-Ø(-en)
Ge-länd-e	Ge-hölz-Ø
Ge-häus-e	Ge-büsch-Ø
Ge-müs-e	Ge-tier-Ø
Ge-bild-e	Ge-stühl-Ø
Ge-heg-e	Ge-hirn-Ø
	Ge-schwister-Ø
	Ge-fieder-Ø
Ge-zweig-Ø [!]	Ge-ripp<u>e</u>-Ø [ə part of stem]

evidence for presence of (vocalic) suffix:
– only suffixes determine gender (being heads);
– umlaut and e/i alternation in morphological contexts, even if no
  longer strictly phonological, only conditioned by a following vowel

same phonological pattern elsewhere:
– verbs as modifier in compounds: *Binde-vokal, Säge-werk ... – Reit-turnier, Sauf-bold ...*
– adjective stems: *blöd(e), müd(e), träg(e), bös(e) ... – spät(*e), flink(*e), frisch(*e), kühl(*e) ...*

- "loss" of suffix -*e* in deverbal COLL nouns
  has no phonological rationale, but a newly created morphological function:
  derives RESULT-OF-REPEATED-ACTION nouns

Ge-brüll-e	→	Ge-brüll	
Ge-jammer-e		Ge-jammer	
Ge-bell-e		Ge-bell	

Ge-lauf-e	Ge-läuf	why umlaut only with RESULT: no suffix?
Ge-sing-e	Ge-sang	why ablaut?

Ge-murm(*e)l-e	Ge-murmel	ok.VCl.	ich murm(*e)l-e
Ge-jamm(e)r-e	Ge-jammer	*.VCr.	ich jamm(e)r-e

A peculiar instance of reductive morphology! Questions remain here:
Why ablaut and umlaut (a few examples given above)?
Is there synchronic justification for deriving RESULT-OF-REPEATED-ACTION nouns
from deverbal COLLECTIVE nouns, rather than directly from verbs, by means of *ge-*prefixation?

Food for thought ...