1. GOTHIC: DATA

There are two active morphological contrast constraints, demanding phonological distinctiveness between related stems which differ in particular morphophonemic features.

1. REALIZE-MORPHEME (RM, Kuroda 2003): Even though the prototypical morpheme is phonologically consistent, this constraint dictates that the morphophonetic feature preserved be expressed (at the stem level) through some phonological distinction relative to the present one.

2. ANTI-IDENT (Crosstape 1999): The present singular and plural stems should also be phonologically distinct. Which deviation from the faithful mapping (which is equivalent to the present stem) a given present stem displays is determined by which available distinctions violates least cost. From least costly to most costly (i.e., most preferred to least preferred):

- Back the vocal: Class VII pret.sg. & pl., e.g., [hεhajt], [hεhajtun]
- Anti-Ident: the vowel; yet...
- Integrity: the accent of the accentuated morpheme: Class VII pret.sg. — vowel backing, most preferred repair
- Integrity: the accent of the unaccented morpheme: [hajt-], Sg.: [hεhajt-]
- Reduplicate: Class VII pret.sg. & pl., e.g., [hajtah], [hajtahun] (violates frequency)

2.1. GOTHIC: ANALYSIS

2.1.1. THE PHONOLOGICAL SYSTEM OF PROTO-GERMANIC

There are two aspects of the phonological system of Proto-Germanic that pose a challenge for the preservation of the P1-system:

1. The placed forms of CV morphs (which eventually compose Class IV-V) are subject to subsequent consonant deletion.
2. The deletion of unstressed vowel + stress due to OCP-Sprhvy

Given that all forms are parsed without an underlying morpheme; (2) Motivating initial non-zero weights, especially for harmonic forms and /geb/, /um/.

3. PIE: REPUDICATION

Reduplicated Proto-Indo-European (PIE) *[le-lójp-e] : *[le-lip-ŕ̩]

4. PROTO-GERMANIC: PROSODY

5. LEARNABILITY: PREPARATION

6. LEARNABILITY: RESULTS

7. CONCLUSION

SELECTED REFERENCES

THE NEW APPROACH TO THE ORIGIN OF GERMANIC STRONG PRETERITENSE RYAN SANDELL, UCLA (ryan.sandell@gmail.com) and SAM ZUKOFF, MIT (szukoff@mit.edu)

1. ABSTRACT

The past tense in Germanic "strong" verbs (e.g., Eng. bite ~ hit) is usually formed through ablaut (vowel alterations), but historically continues a Proto-Indo-European (PIE) verbal formation that obliviously displayed reduplication and phonologically consistent ablaut. In Gothic, however, reduplication and ablaut appear to coexist in complementary distribution.

Phonetic Question: How does the inherited PIE category develop into the Gothic system?

- a. We propose that loss of mobile accentuation in Proto-Germanic (PGmc., the intermediate stage between PIE and Gothic) made more difficult the task of acquiring an underlying Rito morpheme.
- b. Using Maximum Entropy learning models, we show that, once the PGmc. system is depred of an underlying Rito morpheme, it inevitably moves towards the Gothic system in which reduplication is marginalized.

2.2. GOTHIC: ANALYSIS, cont.

2.2.1. GOTHIC: ANALYSIS, cont.

3. PIE: REPUDICATION

Reduplicated Proto-Indo-European (PIE) *[le-lójp-e] : *[le-lip-ŕ̩]

4. PROTO-GERMANIC: PROSODY

There are two aspects of the phonological system of Proto-Germanic that pose a challenge for the preservation of the P1-system:

2. The placed forms of CV morphs (which eventually compose Class IV-V) are subject to subsequent consonant deletion.

DELETION: [Rito, gε,hajt-um] — > [gε,hajt-

[Pres. Pl] > [Pres. Sg]

- Sk: [hajt-] has been made [hεhajt-]}

Robust MaxEnt grammars (Goldwater and Johnson 2005) model these changes. The output consists of a set of large weights, each associated with a particular input.

- No prior; zero initial weights (α = 0, β = 0): for constraint, the grammar can distinguish three forms (Timme and stapel 2005) and (b) no prior, zero initial weights (α = 0, β = 0): for constraint, the grammar can distinguish three forms (Timme and stapel 2005).
- A strong prior, a strong prior for morphological constraints (α = 10, β = 100): for constraint, the grammar can distinguish three forms (Timme and stapel 2005).
- A strong prior, a strong prior for morphological constraints (α = 10, β = 100): for constraint, the grammar can distinguish three forms (Timme and stapel 2005).
- Learning to learn: Learning to learn: The selection of learnable distributions, original "winner" ([bebitum]) receives an insignificant portion of the total weights: [bebitum] > [bebajte] > [bebajte].
- Learning to learn: Learning to learn: The selection of learnable distributions, original "winner" ([bebitum]) receives an insignificant portion of the total weights: [bebitum] > [bebajte] > [bebajte].

- The accent of the accentuated morpheme; yet...
- Integrity: the accent of the unaccented morpheme: [hajt-], Sg.: [hεhajt-]

We propose that these changes made it difficult for learners to establish the presence of an underlying Rito morpheme.

- [le-lójp-e] gives little indication of its presence, and this seems to have affected the interpretation of the entire system.

- Without strong evidence of a Rito morpheme, it is more kosher to parse [geb] as instantiating an unstressed [-long] than simultaneous instantiations of [-long] and [Max] (and possibly also [back]).

- The loss of the Rito morpheme does not immediately trigger loss of derived or secondary stress.

We propose that the major trigger behind the loss of reduplication in the Gothic strong verb system was the opacity of deletion processes that created surface forms without clear reduplication, such as [geb].