

Based: Predicting paradigmatic leveling in nominal accent-ablaut classes

Hannes A. Fellner, University of Vienna
Laura Grestenberger, Austrian Academy of Sciences

The standard model of the reconstructed nominal accent-ablaut classes in PIE (cf. Fortson 2009: 75–85) posits paradigmatic accent and ablaut alternations in the roots, suffixes, and endings of the different reconstructed athematic stem classes. It is generally agreed that this system is not synchronically attested in the older IE languages in its original form, but was modified and adapted on the way to the attested languages. However, the exact routes of adaptation, especially with respect to paradigmatic leveling and the generalization of different ablaut grades (e.g., *o*-grade vs. *e*-grade of the root in root nouns or acrostatic stems, *e*-grade vs. zero grade of the root in proterokinetic stems, etc.) are still not well understood. For example, assuming that the word for ‘foot’ originally had R(*ó/é*) ablaut, why did Greek generalize the *o*-grade (πούς, ποδός), Latin/Italic the *e*-grade (*pēs, pedis*) and Indo-Iranian a paradigm with synchronic quantitative ablaut (Ved. *pā́t*, acc. *pādám*, gen. *padás*)? Hence “the next step in the study of these systems is to try to understand precisely how the pre-PIE systems evolved into the immediate ancestor of the attested daughters, i.e., Indo-European. At that stage it is apparent that whatever the phonological origins of the accent/ablaut system, that system had been morphologized. (...) But the precise characterization of the inflectional properties of individual nouns and verbs at the IE (rather than pre-PIE) stage, and of classes of nouns and verbs, and of the system as a whole, is a task which has not been seriously undertaken at this point.” (Hale 2015: 12–13).

This paper presents a proposal for predicting the directionality of leveling in a given inflectional paradigm. Following Albright (2002) we assume that one form in the paradigm (defined here as the set of surface forms of a stem) is designated as basic and that the grammar involves a set of rules that define the remaining forms in relation to the base. The hypothesis is that acquirers pick the maximally informative form (that is, the form that allows them to predict the remaining forms of the paradigm) as the “base” (Albright 2002, 2005, 2008, 2010, etc.), which in turn determines the direction of leveling. Variation in the language-specific informativeness of the respective bases triggered by sound change or language-specific syncretism can lead to different outcomes of paradigmatic leveling (Albright 2010). To test this approach, we apply a modified version of the Minimal Generalization Learner (MGL; Albright and Hayes 2002; 2003), a model that abstracts commonalities from pairs of word forms and formalizes them as rules, to the problem of the nominal accent-ablaut classes, using the Indo-Iranian *i*-stems as a case study. These stems are generally assumed to reflect R(*o/e*)-acrostatic primary *i*-stems, but also secondary *i*-stems, which were derived via substantivization of adjectives and probably did not display root ablaut (cf. Grestenberger 2014). With roots of certain shapes, the inherited R(*o*) moreover resulted in synchronic lengthened grade/*vṛddhi* in open syllables by Brugmann’s Law (BL). Since the *i*-stems then leveled root ablaut, we end up with three different classes synchronically, namely R(*ā*), 1a), R(*a*), 1b), and R(*∅*), 1c), all of which are animate (masc. or fem., adjectival or substantival) and use the same inflectional endings (with some exceptions, to be discussed). However, the distribution of R(*ā*) vs. R(*a*) is not synchronically predictable from root shape (open vs. closed syllable, BL), nominal gender, or semantic function, hence the question arises how learners of Proto-Indo-Iranian decided to level root ablaut in inherited ablauting *i*-stems. We illustrate the applicability of the MGL with the apparent BL-exceptions Ved. *pāti-*, Av. *pa’ti-* ‘lord, master’ (expected **pāti-*, cf. Lat. *potis* ‘able’, Gk. πόσις) and *ávi-* ‘sheep’ (expected **ávi-*, cf. Lat. *ovis*, Gk. ὄϊς, etc.) and show how the inherited ablaut and inflectional properties of these stems (“open” vs. “closed” inflection) can be used to predict the leveling outcomes of the attested forms. In a further step, we then extend this model to other stem classes, in particular the ablauting root nouns and other athematic nouns.

1) Vedic *i*-stems

a. R(<i>ā</i>)	b. R(<i>a</i>)/guṇa	c. R(<i>∅</i>)
<i>ā́ji-</i> m. & f. ‘race, contest’	<i>arí-</i> m. ‘stranger’	<i>ṛ́ṣi-</i> m. ‘poet’
<i>drā́pi-</i> m. ‘coat’	<i>arcí-</i> m. ‘flame’	<i>girí-</i> m. ‘mountain’
<i>dhā́si-</i> m. ‘nourishment’	<i>ghasí-</i> m. ‘food’	<i>tují-</i> f. ‘progeny’
<i>dhrá́ji-</i> f. ‘gust of wind’	<i>granthí-</i> m. ‘knot’	<i>dhúni-</i> a. ‘thundering’
<i>rā́śi-</i> f. ‘group, heap’	<i>draví-</i> m. ‘cutter’	<i>plúṣi-</i> m. ‘flea’

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