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## Ideias e Críticas

The Classical Interlude:
a Law of Recessive Tonal Accent FOR ‘Classical'-era Indo-European

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## Abstract

It is shown that W. S. Allen's theory of a 'contonation', derived from Vedic descriptions, accounts for the apparently divergent 'tone' and 'stress' rules (respectively) for ancient Greek and Latin, as well as, by extension, classical Sanskrit. Historically, Greek and Latin show evidence of an active stress component in their accentuation in the weakening grade of adjacent vowels, an effect that appears not to be present during the classical period. It turns out that all three classical languages display patterns of accentuation in their received grammatical traditions which can be formulated in terms of a 'recessive contonation' rule, when the role of quantity is factored in.

Reviewers of my recent book, The Dance of the Muses: Choral Theory and Ancient Greek Poetics, have recused themselves from judging the linguistic argument in Chapter 3 (David: 52-93) that is in fact a key to all that follows (see, e.g., West: 182; Blankenborg). M. L. West goes so far as to describe the stress theory for ancient Greek set out by W. S. Allen as 'refuted', though he fails to mention that he is referring only to his own review of Allen's Accent and Rhythm. The latter has recently been reprinted (2009), to the acclaim of professional linguists. There are unfortunately occasions when classical philologists, such as those who have reviewed my book, seem to live in a kind of echo chamber, unaware of opinions and methods grounded in other relevant disciplines. West feels that he has refuted Allen's argument on the grounds of 'circular reasoning'. He does not appear to understand descriptive argument, which is by its very nature circular. Deductions are rare in some approaches to reality. A. M. Devine and L. D. Stephens, by contrast, described Allen's study as 'the first work in the field of Greek metre that can truly be said to understand the requirements of scientific method and theory construction.' (Devine and Stephens: 26) This is the view to which an informed consensus subscribes.

I thought it would be helpful to set out the laws I have proposed, outside the contexts of dance, Homer, and ancient poetics, so that Indo-Europeanists and other historical linguists might evaluate and make use of them. As my title indicates, I consider the discovery to be of considerable scope for anyone interested in formulating an historical topography for Indo-European. In what follows, I shall deal first with Latin and then Greek. I am not a Sanskritist: I merely follow the claim that classical Sanskrit, descended from Vedic, shows
'a recessive system practically the same as the Latin one.' (Sihler: 234) First I shall cite the factors in the new theory common to all three cases.

## Common Features

The point of departure for the new theory was Allen's comparison of the Vedic udatta-svarita system with the classical Greek descriptions and prosodic notation. The rising tone, udatta, occupied only one vowel mora, but the svarita or down-glide could occupy both moras of a following syllable. A multiplicity of distinctions and terms, produced separately by philologists, linguists and metricians, can be confusing. A 'mora' is an element of vowel quantity; a short vowel has one (nihil), a long one has two (rāri). Metricians distinguish between 'heavy' and light' syllables. Syllables containing long vowels are heavy, but closed syllables with short vowels also contain two moras, and are considered heavy from the perspective of metre. Philologists somewhat confusingly refer to these vowels as long by position'. Short vowels followed by a mute and a liquid, however, are considered 'doubtful'; this is because such syllables can be either heavy or light, depending on their placement in the thesis (another ambiguous philological term, by which I refer to the ictus-bearing downbeat of a foot) or the arsis (the weak part of the foot or upbeat). This ability stems from the fact that a mute + liquid can be seen either as divisible, closing one syllable and opening the next, or together as the initial plosion of the ensuing syllable.

I claim that udatta corresponds to Greek ỏzús and svarita to Greek $\beta$ apús. The circumflex denotes a situation where the pitch rises on the first mora of a long vowel and drops on the second. Thus the Greek prosodic notation is consistent in marking the mora where the voice rises, but only in this one instance (the circumflected vowel) does it indicate the following drop in pitch. Allen suggests that the two elements fused in these situations, with the down-glide predominating; he cites Sanskrit grammarians who describe the cases corresponding in Vedic to the Greek circumflex simply as svarita. (Allen 1987: 122) Meanwhile, it is important to note that despite its name, the 'grave' sign in Greek texts does not mark the svarita, which is an automatic down--glide following the ó $\xi \dot{v} \varsigma$-udatta; rather, it marks the suppression of the pit-ch-rise on the ultima of a non-prepausal word. In Greek sandhi, if the voice does not have 'room' to descend in pitch within the word, it is not permitted to rise: what cannot come down, must not go up.

Hence the Greek version of the svarita is only indicated in the circumflex, where the pitch-rise occurs on the first mora of a long vowel. An acute sign on a long vowel simply indicates a pitch-rise on the second mora; any subsequent down-glide on the following syllable, whether the vowel is long or short,
in this situation or any other, is left unmarked. It should be noted that trochaic shapes with an initial closed syllable, containing a short vowel, are marked with an acute sign, on the only vowel mora available to be marked (e.g., áv $\delta \rho \alpha$ ). Textual and metrical evidence suggests that the contonation was completed within such closed syllables in trochaic environments (but not in others - in ávध $\rho \omega \pi \sigma$, e. e.g., the down-glide occurs on the penult, not within the antepenult; see David: 65).

The new theory of the classical accent depends on the idea that accentual prominence derives not just from rising pitch, but from the combination of pitch change with quantity. Hence a down-glide over a closed syllable or a vowel of two moras would be more prominent than the preceding rise on a single mora. If, however, the syllable following the rise was short, the syllable containing the rise would register as more dynamically prominent. Although the combination of pitch change and duration is a feature of stress, in these contexts the weakening of adjacent vowels that is also characteristic of stress does not occur. Hence such phrases as 'dynamic prominence' or 'tonal stress' are in order for this phenomenon. I shall use 'tonal prominence'.

## Latin

For classical Latin, the rule is simply this: the contonation must begin (that is, the pitch-rise must occur), where possible, on the second mora before the ultima. The rule is indifferent as to the quantity of the ultima.

Tonal prominence in Latin then becomes an automatic consequence of the possible conjunctions of pitch change and quantity. In the following examples, I use a grave sign for a prominent syllable bearing a down-glide, and an acute for a prominent syllable bearing the sharp rise in pitch. The traditional stresses are in bold:

> Cícerō, fácilis, còrda, ràri, níhil, canò

Note that classical grammarians describe one species of Latin accent as 'flex'; the new theory suggests that on long penults, the Latin dynamic prosody was tonal in a way that directly reminded native descriptivists of the Greek circumflex. The reader will observe that in all cases save the last one, the new theory predicts tonal prominence for the same syllable described according to the traditional rule as 'stressed'. In the iambic shape (canò), however, the new theory generates an ultima stress, what would be a unique case (outside of monosyllables) in classical Latin (see David: 77, 78). This is because the down-glide fills both moras of the ultima. The historical phenomenon, 'iambic shortening' of the ultima in such cases, was likely an effect of the more familiar type of stress
on the penult. It is well known that initial stress in Latin left its mark on Latin historically. There may also be a suggestion, however, that Latin resisted such a prosody on the ultima; iambic shortening creates a pyrrhic shape, and automatically shifts prominence back on to the penult (as in nihil). But in the classical context, the first line of Virgil's Aeneid strongly suggests that cano was pronounced with an ultima stress. To stress the penult here would be to stress the second short of the second dactyl - unnaturally, from any possible poetic or musical motive - rather than the thesis of the third dactyl, at the first caesura of the whole poem. It is also counterintuitive that an onomatopoeic expulsion at this rhythmic moment (canō) would be suppressed. àrma virùmque canò.

## Greek

The classical Greek rule allows for more complications and permutations. The descriptive recessive rule from which everything seems to stem, however, can be stated simply thus: where possible, pitch-rise occurs on the antepenult; but no more than one mora may follow the end of the contonation.

Within this stricture, a number of non-recessive examples were allowed to survive without 'reform'. These include all words with a rising pitch marked on the ultima; certain Indo-European originals (e.g., $\mu \eta \tau \varepsilon ́ \rho a)$; and perfect participles (e.g., $\lambda \varepsilon \lambda \nu \mu \varepsilon \varepsilon^{v}{ }^{\prime}$ ).

It has become possible to revive a binary distinction, oxytone/barytone, which persists in grammars but appears to have little descriptive utility. 'Barytone' in particular has come to mean merely a word with no accent mark on the ultima. I would suggest that the distinction corresponds to one between prominent rising pitch ('sharp')/prominent down-glide ('heavy'). Dionysius of Halicarnussus reports that Greek words were characterized by being spoken either on the 'sharp pitch', the 'heavy pitch', or on both (De Compositione Verborum, 40.17). Under the new parlance we speak of words that are oxytone on the antepenult ( $\delta \dot{\varepsilon} \kappa \alpha \tau о \varsigma), ~ p e n u l t ~(~ \pi o ́ \lambda ı \varsigma) ~ o r ~ u l t i m a ~(o ̉ \xi u ́ c) ; ~ o r ~ b a r y t o n e ~ e i t h e r ~$
 ultimate quantity could be affected by an enclitic could switch from oxytone to barytone (e.g., đó $\lambda ı \varsigma, \pi o ́ \lambda i \varsigma ~ \tau \varepsilon)$. These would be examples of the words that could be pronounced 'on both'.

A principal demonstration of the thesis comes from samples of stichic verse, where one would expect metrical ictus to be reinforced and counterpointed by prosody in a recognizable way. Greek verse is notorious for showing no sort of patterned relationship between its prosody and its poetry, a situation otherwise unexampled. Consider the opening line of Sophocles' Antigone:

The bolded syllables represent the ictus-bearing segments of the iambs. Note that there is no correspondence whatsoever between the positions of the written accent marks and this ictus, unless we accept the implausible notion that Sophocles was aiming for a complete counterpoint or rhythmic dissonance in his opening line. Now consider how the ictus relates to the positions claimed for tonal prominence according to the new theory:

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Here we see initial de-emphasis or counterpoint culminating in full agreement between accent and ictus, both at caesura (after aútá $\delta \varepsilon \lambda \phi o v$ ) and at line-end (кá $\rho \alpha$ ): a recognizably musical pattern. (For a number of other examples, see David: 115-137, 222-227, 236-237, 249-253, 258-260, 263-269.)

The new law in this case, unlike that of Latin, was not corroborated by received rules for stress. The new law in fact corroborated Allen's rules for stress, celebrated above by Devine and Stephens, and showed for the first time that Allen's work was in fact consistent with the received graphic marks for Greek. The breakthrough has to do with the idea that the highest pitch point in a word, marked by the Alexandrians who invented the received accent system for ancient texts, was not necessarily a feature of the most dynamically or tonally prominent syllable in a word. Sometimes, depending on its quantity, it was the syllable following.

Here are the rules, as Allen set them out in his later handbook (Allen 1987: 135-136):

1. Prominence applies to an element constituted by either (a) one heavy syllable or (b) two light syllables.
2. Words (or word-like sequences) longer than an element have internal contrasts of prominence/non-prominence.
3. If the final syllable of a word is heavy it is prominent.
4. If the final syllable is light, the next preceding element is prominent.
5. A preceding element separated from the prominent element is also (secondarily) prominent.

The new theory has nothing to say about a possible unattested secondary prominence (rule 5), except to say that dual prominence is met with routinely in enclitic combinations. In all other respects, Allen's stress rules predict the same prominent syllables as the new theory does. As I say, the new theory 'amounts to a dovetailing and a vindication of ancient and modern approaches.' (David: 74) Allen's rules were induced in a study of the ends of lines of
verse. That they are confirmed by an application to the rest of the line in Greek poetry, is a closing of the circle. This manner of evidential closing of the circle is a hallmark of sound inductive reasoning.

The new theory is also consistent with synchronic accounts. Here is C. Golston, following P. Sauzet:

The central insight to Sauzet's analysis is that the orthographic H [high tone] in A [ncient] G [reek] need not be the pitch accent. Instead, he posits a $L^{*}$ tone that marks the pitch accent; the tonal melody $\mathrm{HL}^{*}$ is mapped onto the word with $\mathrm{L}^{*}$ mapped onto the prominent syllable. H docks to the mora immediately preceding L*. (Golston: 72)

I comment:
The 'insight' corresponds to Allen's observation, supported statistically [Allen 1973: 262-264], that the svarita tended to fall on the strong positions of feet. It has not occurred to synchronic phonologists, however, to consider the other possibility ... that certain quantitative environments produced $\mathrm{H}^{*} \mathrm{~L}$ (i.e., prominent H). (David: 82)
A. H. Sommerstein's synchronic study that identifies [+ falling] as a separate feature from [+ sharp] is also completely consistent with the new account. (Sommerstein: 123-127; David: 80-81).

Historical instincts must yield to facts; unfortunately this 'classical' manifestation of an Indo-European prosody is somewhat bizarre.
... my conclusions tend to problematize the definite reconstructive claims that can and and have been made, in particular claims that link the Indo-European accent to the 'free' and purely tonal accent of Vedic, leaving ablaut unexplained in IE, and to problematize also the descent of those languages which seem to have developed a culminative accent with a stress function, as exhibited in metrical environments, but for whom ablaut had become historical. (David: 2-3)

Is there an empirical factor that might have induced such a literal coincidence, a tonal recessive accent in each of these 'classical' cases? Vedic 'begins' historically with a free tonal accent; Latin begins with an initial stress; Greek begins with a tonal feature that owns the effects of stress (Buck: 110). In their classical forms, all three seem to show a recessive pitch accent without the
phonological effects associated with stress on adjacent syllables, but still capable of the dynamic reinforcement required of verse ictus. Greek and Latin then proceed to develop the familiar stress accents that persist to this day: the ancient syllable that contained the rise in pitch and the highest pitch point of the word, came to be the later or modern stressed syllable. I cannot speak to the scattered modern literature, but the apparent historical descendants of Sanskrit seem to have gone different ways accentually, at the level of the word or the phrase. So the prosody of the golden age of poetry, drama, philosophy, even linguistics and mathematics in these languages, seems to have been part of a simultaneous development yet to be explained in linguistic terms. It seems to have been a sort of 'classical interlude.'

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