Prehistoric Greek phonological chronology, with some reflections on sibilance, aspiration, and spirancy

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Aspirates in combination with other aspirates, and their descendants, have had an enduring history of interesting developments throughout the course of prehistoric and historical Greek, up to the present day. The well-known facts concerning Grassmann's Law (aspirate dissimilation), as in *τρέφ-ω* "I nourish" from pre-Greek *threph-ō (from Proto-Indo-European (PIE) *dhrebh-) show this, as does the post-Classical manner dissimilation process that affected the voiceless fricatives (as continuations of the earlier voiceless aspirate stops of Ancient Greek), e.g. *φθάνω* > *φτάνω*, and persists in Modern Greek morphophonemics (e.g. *γράφτηκε* "it was written", from /γράφθηκε/, here with -φ and θ-, and in mappings between one-time katharevousa forms still in current use and their dimotiki counterparts (e.g. *χθες* ~ (ε)χτές "yesterday").

Moreover, besides the well-known fact of PIE *s yielding /h/ in certain environments in Ancient Greek (see below), there are also forms that some have seen as involving adventitious aspiration on a stop following *s in *σφαργέομαι* "burst with a noise" or *σφαλάσσω* "cut, prick" (see Joseph 1985, and note -φ- following sigma). Interestingly, it seems that this connection has continued in a limited way in an altered form in the Modern Greek outcome of the ancient voiceless aspirates: in particular, the manner dissimilation noted above did not robustly affect all the post-Classical voiceless fricatives (from earlier voiceless aspirated stops) when they followed [s]. Even though *σθ* and *σχ* do regularly show dissimilation to *στ/σκ* respectively, *σφ*, for instance, shifted to *σπ* only in a few dialects and not pan-Hellenically (see Thumb 1912:§18). Thus in *σφ* the linkage between s and a former aspirate remains.¹

On the other hand, if we recognize that in this position the labial *p seems to show a predilection for aspiration and that the spirant appears to resist a development to [-continuant], we then have a phonetic tendency in agreement

with the known asymmetric loss of voiceless *p (see on this Hamp 1970 concerning labials in Mayan, and Hamp 1985 regarding the loss of *p in Mongolian and Armenian; see also Hamp 1989).

The details of the chronology of developments involving aspirates and sibilance, either separately or in tandem, are, for prehistoric Greek, somewhat tricky to work out, but the following sequence of events now seems clear. This chronology, incidentally, has some consequences for the late Indo-European dialect grouping of Helleno-Armenian, what might be called “Pontic” (Hamp 1998: 316–318).

In the course of reconstructing Greek *ἐχέτλη* “plough handle” and Welsh *haeddel* (fem.) < *sagedlā as PIE *sg’hédhlā (i.e. *sg’h-é-dhl-eH_a/-o-) (Hamp 2003), as a result of which some modifications of detail in the reasoning of Hamp 1988–89 were made, a number of chronological stages in the phonological prehistory of Greek between PIE and Mycenaean time were discriminated.

- 1. PIE *s (nearly) exactly as seen in Vedic (with Avestan; probably cuneiform Hittite), Lithuanian with Old Prussian, Gaulish (and Celtiberian?) with Ogam Irish, perhaps Messapic > Helleno-Armenian *h (notably initially for many interests) except before obstruents or word-juncture and after obstruents or sonants. Initial *s_u > *h_u developed as initial *_u devoiced, i.e. Armenian *_u / > *^w / > *^w / > *k^wh > kh. Thus *seg’h- (Gk. *sek -s/-t-, Arm. *-(V)n-) > ἔξω, ἔκτωρ, ἔσχατον; *(k)suék’s > ἔξ; Arm. *ezn* “ox”

- 2. Devoicing of PIE aspirates in Greek, but not in Armenian

- 3. Suffix dissimilation (Meillet 1900: 313, Hamp 1988–89:10–11), *khú-thlo-n “liquid” > χύτλον (ἐχέτλη, etc.)
- 4. Fronting of medial *h* (at the latest): *(ǵ)'eusō > Lat. *ūrō*, *¹eu^hō > h'euō *εῦω*; likewise ἄρμα “chariot” (ἄραρισκω (Hamp 1982))
- 5. Grassmann’s Law: θρίξ : τριχός; τρέφω : θρέψω; ἔχω : ἔξω; Lith. *saūsas*, OCh.Slav *suxъ*, *sušiti*, Srb-Cr. *súho*, Eng. *sear*, Hell-Arm. *h'auhos > Myc. *¹auhos

6. Loss of medial (intervocalic) *-h-*. Post-Mycenaean *¹auhos > αῦος.

However, the language did not stop there, as it were, so it is useful to reflect on how some of the morphophonemic alternations that these changes created in early Greek have developed — in some instances being eliminated, in others being transformed — in later Greek, just as hinted at above with regard to some dissimilatory developments involving aspirates. In particular, some allomorphy vanished by way of regular sound changes, e.g. *ἔχω/ἔξω* was altered by the loss of /h/ (as well as the loss of the synthetic future). In other cases, one alternant was generalized at the expense of the other, as with *τρέχ-ω* “run” (where there is no trace in Modern Greek of the allomorph seen in the ancient future *θρέξ-ω*), while with other verbs, one finds leveling in both directions and subsequent lexical split, as with Ancient Greek *τρέφ-* (as in present *τρέφω*) ~ *θρέπ-* (as in future *θρέψω*) yielding Modern Greek *τρέφω* and *θρέφω* (the former possibly to be considered a learnedism). Some of these processes were under way in ancient times — note, for instance, that already in Ancient Greek, *πείθω* “persuade” had only *π-*initial allomorphs, even when the conditions for Grassmann-induced alternations were met (thus future *πείσω*, not ***φείσω*, perhaps because **θσ* words yield *-σ-*), and some of the suffixes possibly affected by suffix dissimilation were restored or applied analogically, so that, for instance, *ἐ-χύ-την* is found for presumed **ἐ-χύ-την*.

On the other hand, some phonotactic rules were broken by the occurrence of rule-governed phonetic change. So we find *ἐπτά* > *εφτά*, as well as *ἔφθασα* > *ἔφτασα*.

Though unfolding over centuries and even millennia, recurring developments such as those mentioned here give credence to the view that despite changes that can both reinforce and undo old regularities the new patterns are just as rule-governed as the old; at the same time, these successions of fresh patterns call into question the bland assertion expressed e.g. by Browning (1983: vii) that “Greek is one language, not a series of distinct languages”. If all Greek is one language, and not, for example, the same as Armenian, then we must be prepared to stipulate how we discern diachronically a language — or what else we should call it.

Note

1. Much more could be said about the developments with the manner dissimilation and especially the way in which borrowings from *katharevousa* have altered the historical

distribution of the sounds; interestingly, it seems that restoration of the voiceless fricatives after *s* (via spelling pronunciations or learned influence or the like) has proceeded in a less hindered fashion than after the other voiceless fricatives φ and χ . Of course, *s* is the fricative par excellence inherited from Indo-European.

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