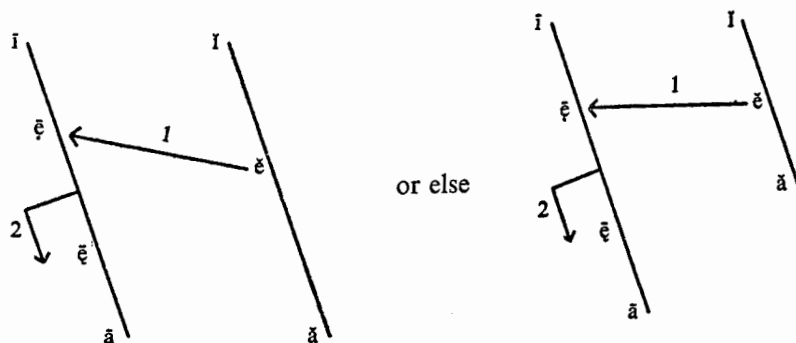


## PHONETIC SHIFTS AND PHONEMIC ASYMMETRIES

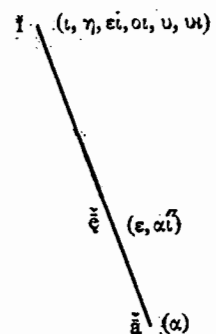
N. E. COLLINGE

Several scholars have speculated on the effects of operational systems on items of language history. Phonetic shifts have been interpreted in terms of remedying "crowding of the oral space" or of "filling gaps in the sound system". One thinks of the names of Mildred Pope, Martinet, Juilland and Haudricourt, and Ruipérez; and sets against them, as opponents of the overuse of the factor of "structural pressure", Galton and Lasso de la Vega. A recent adherent of the notion contented himself therefore with observing that "phonetic developments do in fact frequently have the effect of resolving asymmetries in the phonological system". But these consequential developments may well be absent when there seems to be a crying need for their intervention, and even appear to promote successive and fresh asymmetries. Nor do scholars adequately distinguish between phonetic groupings with natural (physiological) symmetry and phonemic systems with functional (mathematical) symmetry. W. S. Allen, whose is the commendably cautious remark quoted above, has used the systemic principle of equal spacing to explain neatly the aperture shift and rearrangement in the long mid vowels of Attic-Ionic Greek, when secondary long vowels entered from contraction or lengthening of the short mid vowels. Thus, to quote only the front vowels, the effect was (by the shifts as numbered):



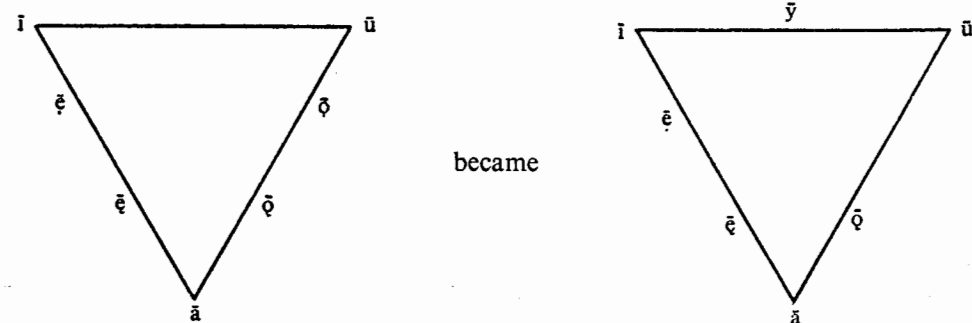
But apart from other similar and quite unresolved asymmetries in the ancient Greek system, Modern Greek (with a relevant historical connexion), without significant aperture-difference between long and short vowels and with stress-conditioned quant-

tity, clearly tolerates *phonetic* asymmetry with no signs of distress:

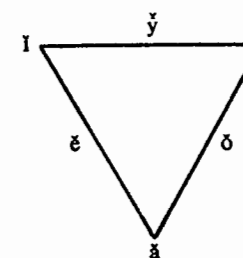


Phonemically, here is no asymmetry but only three equipollent terms in an inventory. Phonemic asymmetry must mean either uneven frequency of occurrence of individual terms or imbalance (e.g. numerical) between distributionally similar sub-systems. To return to Attic-Ionic, awareness of sound-difference, not of the frequency-difference, is suggested by the purely graphic evidence (and in Mod. Gk. uneven frequency is tolerated in respect of /i/), while numerical imbalance was actually produced by and kept after the shift, with four terms in the long system against three in the short in this sector. Admittedly Allen speaks of 'phonological' (and not phonemic) symmetry, in tune with the common British preference for disregarding distributional counters in favour of accurate description of the sounds, especially in their place of realisation in the utterance, and of handling them as functional elements by stressing the perceptual aspect. (Hence the title of Topic C of this Congress would in British English be "Phonetics and Phonology".) But then the *pattern* remains the same as in phonetic analysis, and meets the same objections to "systemic causation" of shifts.

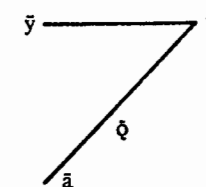
Another example may make this clear. There may be a point in examining together the Attic-Ionic shifts of  $\bar{o} > \bar{u}$  (c. 350 B.C.— $\bar{o} > \bar{u}$  is very uncertain and ignored in what follows) and  $\bar{u} \rightarrow \bar{i}$  (date unknown but had moved by 350; classical result probably [y]). If systemic connexion is presumed as it has been, this means, both phonetically and phonologically, that



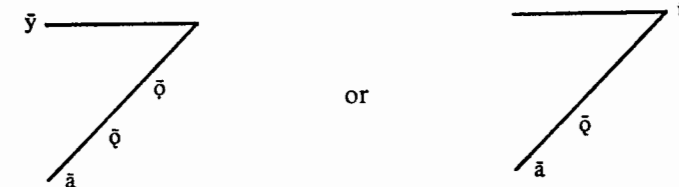
creating and leaving an asymmetry (even if  $\bar{o}$  was subsequently somewhat closed); and this new long vowel system stood beside the short system



with toleration of comparative crowding of the front oral space and narrowing of perceptual frontiers in the long system, and not even like placement of gaps. In one sector, it may be admitted that in terms of perceptual efficiency



is better than an interim form



but this does not entitle us to speak of symmetry.

Phonemically the position is worse:  $|\bar{a}|\bar{o}|\bar{o}|\bar{u}|$  passes to  $|\bar{a}|\bar{o}|\bar{u}|\bar{y}|$ , via either (1)  $|\bar{a}|\bar{o}|\bar{o}|\bar{y}|$  or (2)  $|\bar{a}|\bar{o}|\bar{u}|$ . If (1), no improvement in either frequency-symmetry or sub-systemic balance was achieved by either stage of shift. If the less likely (2), we cannot detect, in the absence of oral record, whether  $|\bar{u}|$  really was overloaded and felt to be so; and if it was, how were the original members of that phoneme extricated for passing to  $|\bar{y}|$ ? And why was the achieved balance with the equivalent sector of the short vowel system (each of three terms temporarily?) at once thrown away?

It is, of course, possible to allow schematic pattern to phonemes also, by stressing their essential phonetic exponents and (as does Martinet) by using componential analysis to plot their relative positioning in terms of the distinctive features of which they are made up. But the objections remain: the appearance of the opposition of

the presence/absence of a given feature in one place in the schema is no guarantee that it *will* appear in another place where, as regards phonetic balance, it *could*.

These pragmatic considerations suggest that if there is a scale of belief ranging from full acceptance of systemic control of sound-shifts to utter denial of such causation, the truth is probably nearer to the latter end of the scale.

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#### DISCUSSION

Most "explanations" of language change have hitherto been based on the metaphorical treatment of linguistic units as agents and are consequently disguised descriptive statements. If "causal explanation" is at all meaningful as a phrase, however, may we not legitimately apply it to the identification of the selection pressures which operate upon the range of variant forms maintained within a speech community? Besides the obvious case of economy of effort (applied to the speech event as a whole, embracing speaker and listener), pattern congruity exerts some pressure, but a weak one. Where language changes result in a less integrated system, is it not likely that stronger pressures are at work, as when a range of diaphonic variants acquires sociological significance?

*John L. M. Trim*

It is no doubt interesting to describe how gaps are filled, asymmetries resolved, and the like. But if the language system did not continue to entertain as many gaps as are filled, and if not as many asymmetries are created as are resolved, processes of this type could not go on as they have done for thousands of years and would soon come to an end. Thus these facts cannot "explain" phonetic change – they are not the ultimate reasons for change. On this point I am of the same opinion as K. Togeby in "Les explications phonologiques historiques sont-elles possibles?", *Romance Philology*, 13 (1959–60), pp. 401–413.

*G. Hammarström*