

CONTRIBUTIONS TO THE STUDY OF FINAL -ς IN GREEK ADVERBS.

A SUFFIX -ς, the nature of which has not yet been satisfactorily explained, occurs in several categories of Greek words, in some, *καλῶς, κακῶς, αἰθῆς*, permanent, in others, *ἀμφί, ἀμφίς*, 'mobile.' Brugmann's suggestion, *G.G.*³. § 259, that the suffix in both these cases is the same, is supported by *οὔτω, οὔτως*, which must be assumed to stand in the same morphological relation to *οὔτος* as *καλῶς* to *καλός*. Still the question arises why we have *οὔτω* and *οὔτως* side by side, like *μέχρι* and *μέχρις*, but never **καλῶ* beside *καλῶς*. May the suffix in either case be, after all, of different date or origin, or both? The identity of the -ς with the suffix in *δίς, πολλάκις*, Brugmann, *ib.* § 295, considers doubtful, though on the face of it one would be inclined rather to class the 'mobile' -ς of *μέχρις* and *πολλάκις* together, against the permanent -ς of *καλῶς*, and analogical extension, Brugmann, *ib.* § 259, would be more reasonably assumed for the former than for the latter.

A similar -ς is found by Kretschmer, *Zur Geschichte der griechischen Dialekte, Glotta*, i. p. 55, in *πρός, πάρος*, beside *πρό, προ-τί, pro*, and in *πός* beside *πο-τί*. I propose to begin with an examination of this family of words. Formally we cannot well separate *πρός* and *πάρος* from *παρά, πέρα, περί*, Prellwitz, *Wb.*². p. 362, nor these again from *πόρος*; throughout we have obviously different case forms of the same stem. If on the one hand we compare *φόρος* with *φαρέτρα, τόλμη tolerare* with *τάλας, τάλαντον*, and, on the other, *φόρος* and *δίφρος, Φαρήν, ἄρνός* and *πολύρρην*, we see that there is no objection to taking both *πρός* and *πάρος* as nominatives, to which the abl. will then be **prōd*, Lat. *prō*. Of this use of the nominative case we have an ex. in *trans*, Walde, *Lat. Etym. Wb.* p. 634; and instances of the same case in adverbial function are probably *ἄπαξ, πύξ*, Brugmann, *G.G.*³. § 167.

Another possibility, moreover, seems open to us. If, as Streitberg, *I.F.* iii. 305 ff. has made probable, *pēs, πώς* go back to original **pēdos*, **ποδός*, may we not assume in similar relation to *πορός*, **πέρος*, a hypothetical **πώρ*, **πήρ*? From consideration of the paradigm of *ksham, χθών*, gen. *kshmás* *χθονός*, dat. *χαμαί*, we may assume that in monosyllabic words oblique cases with the accent on the ending had the weakest grade of all in the stem: Gk. *ποδός*, *ποδί* and Lat. *pēdis, pede*, therefore, show the introduction of the vowel of the nom. to avoid the difficult combination **bdos*, etc., Hirt, *Ablaut*, p. 198, or the

o, e, represent reduced grades of \bar{o} , \bar{e} , Hirt, *ib.* p. 6. Now when the reduced syllable contains not a stop, like $\pi\acute{o}\delta\acute{o}s$, *pedis*, but a liquid, the consonant could be treated in two ways, as we see from a comparison of $\phi\acute{\alpha}\rho\acute{\epsilon}\tau\tau\alpha$, $\chi\acute{\alpha}\mu\alpha\iota$, *kshámi* with $\xi\phi\eta\rho\sigma\alpha$, $\delta\acute{\iota}\phi\eta\sigma$, *kshmás*. Keeping this in view we can construct the following paradigm:

N. *pór, *pēr	> ? <i>Lat.</i> per.
G. *parós, *prós	> $\pi\acute{\alpha}\rho\acute{o}s$, $\pi\rho\acute{o}s$.
D. *parái, *prái	> $\pi\acute{\alpha}\rho\alpha\iota$, <i>prae</i> .
A. *parṃ	> $\pi\alpha\rho\acute{\alpha}$.
L. *pér, *péri	> $\pi\acute{\epsilon}\rho$, ? <i>per</i> , $\pi\epsilon\rho\acute{\iota}$.

The question now arises in what relation we are to suppose the forms $\pi\rho\tau\acute{\iota}$ $\pi\tau\acute{\iota}$ $\pi\acute{o}s$ to stand to the above paradigm. To say that to the $\sqrt{\text{per}}$ a suffix *-ti* is added is not quite a satisfactory explanation. An examination of certain other 'irregularities' in Greek morphology will, I think, give the clue to a more scientific explanation of these forms. The variation between nom. and oblique cases in *Lat. iter itineris, femur feminis, iecur iecinoris*, Gk. $\sigma\acute{\kappa}\omega\rho$ $\sigma\kappa\alpha\tau\acute{o}s$, $\eta\pi\alpha\rho$ $\eta\pi\alpha\tau\acute{o}s$, has made us familiar with the fact that a certain number of words had from the beginning, or as far back as we can go, a regular variation of *-r* stem in nom. with *-n* stem in oblique cases, Holgar Pedersen, *r-n stämme*, *K.Z.* xxxii. 240. Instances like Skr. $\acute{c}ákr̥t$, *caknás*, $yákr̥t$, $\eta\pi\alpha\rho$, *iecur*, cf. Whitney, *Sanskrit Grammar*, § 432, show a dental beside the *r* in the nom. (cf. also *Lat. sal* < **sald*, J. Schmidt, *Pluralbildung der idg. Sprachen*, 182, 253). The inevitable result of this existence of different stems side by side in the same paradigm was the intrusion of the stem of the oblique cases into the nom. and vice versa. Examples of this confusion are numerous: *iter itineris, iecur iecinoris*, $\delta\acute{\alpha}\mu\alpha\rho$ $\delta\acute{\alpha}\mu\alpha\rho\tau\acute{o}s$, Pedersen, *ib.* p. 244, $\sigma\acute{\kappa}\omega\rho$, O. Isl. *skarn*, Noreen, *Abriss der urgerm. Lautlehre*, p. 78. A further fact in connexion with these nouns is the existence beside them, often in the same language, of vowel stems from the same roots. Thus beside Skr. $\acute{c}ákr̥t$ we have Gr. $\kappa\acute{o}\pi\rho\varsigma$, *Lat. penna* < **petna* implies a gen., **petnos*, nom. **pet̥* beside Gk. $\pi\tau\epsilon\rho\acute{o}\nu$, Eng. feather, Pedersen, *ib.* p. 245. Walde, *Wb.* p. 459. Beside $\acute{u}\delta\omega\rho$ $\acute{u}\delta\alpha\tau\acute{o}s$, O. Norse *vatn*, are *-o* stems in Skr. *saṃ-udra-s*, $\acute{u}\delta\rho\varsigma$; beside *Lat. argentum* stands $\acute{\alpha}\rho\gamma\upsilon\rho\acute{o}s$, Pedersen, *ib.* p. 245, and beside Gothic *vepn* the Gk. $\delta\pi\lambda\omicron\nu$. (so Pedersen, p. 258, with hesitation). We thus see that any original simplicity that may have existed in the paradigmata of these words has got thoroughly obscured; and, further, that the consonantal stem has often, in one way or another, been changed into a vowel stem, or had a vowel stem substituted for it (cf. Brugmann, *Archiv für lateinische Lexicographie u. Grammatik*, xv. p. 3 n. 2). In exx. like *mukhatás*, *agratas*, Whitney², § 1098 b, we may explain the *-ias* as an inorganic suffix due to the working of Analogy. Analogy, to be sure, is a serviceable and willing ally, but no unnecessary burden should be added to its already too heavy load. If we found in Gk. forms like * $\acute{u}\delta\rho\alpha\tau\acute{o}s$, * $\sigma\kappa\omicron\rho\alpha\tau\acute{o}s$ doing duty as abl. gen. to $\acute{u}\delta\rho\varsigma$, * $\sigma\acute{\kappa}\acute{o}\rho\varsigma$, we should, I think, be

entitled to look for their origin in the presence of the parallel nom. forms ὕδωρ, σκῶρ, and analyse them respectively as *ὕδρητος, σκορητος, with the ρ of the nom. carried into the oblique cases as in δάμαρτος. And further, if we found obviously locational forms like *ὕδρατί, *σκορατί, we should be justified in explaining them as similar mixtures of parallel paradigms. So if we found in Gk. a form *πρατί, and wished to bring it into connexion with πόρος, πρὸς (cf. Hirt, *Ablaut*, § 797), a glance at the parallel forms ὕδρος sam-udra-s ὕδωρ, ὄπλον vepn, etc., would surely afford a clue. Now Skr. prāti may doubtless be identified with Gk. ποτί, but it may equally well represent *pr̥ti, an identification, by the way, which removes another supposed example of European o=Skr. ā in open syllable. If we can see our way to crediting Gk. with a *πρατί, and remember that at the same time there was also πρὸς with precisely the same meaning, the origin of the actual πρῶτι becomes immediately clear. But *πρατί is not the form we expect from a paradigm like that of ὕδωρ σκῶρ, but *πατί. That both *πρατί and *πατί could very well have existed side by side in the same paradigm, the Lat. *iecinis* and *iecinoris* are enough to assure us. Then as soon as *πρατί had, under the influence of πρὸς, become πρῶτι, the change of πατί to ποτί was inevitable; and the proportion πρῶτι: ποτί :: πρὸς: χ could result in only one form, πός.

To all this argument the obvious objection will be: What grounds have we for supposing that a -nt stem parallel to πόρος, para- ever existed? In answer it might be fairly urged that the attested existence of so many parallel -o and -rn paradigms—ὕδρος ὕδωρ water vatn, πτερόν ρεννα, κράνος κέρας, ὄπλον vepn—affords sufficient ground for the presumption that there were still others, this presumption being at the same time justified by our hypothesis explaining the facts. But apart from this, an -n stem to the ✓ per por may, I think, be found in πρίν. The vocalisation is difficult, but if we remember that πρέιν is the Cretan form, and further that Cretan also has side by side πρέσγυς and πρείσγυς, we may perhaps hazard the conjecture that πρίν represents an original *πρέν, cf. Brugmann, *G.G.* § 11 An. 2, § 53 An. 2. A more certain proof of a -n stem, or rather of the mixture of -r and -n stems, to this ✓ is afforded by the Teutonic cognates, O. Icel. forn, M.H.G. vorn, O. Sax. firn, Kluge* (*E.T.*) p. 85. The contamination of the two stems is precisely parallel to that in O. Icel. skarn: σκῶρ, and constitutes what I consider remarkably strong evidence for the correctness of the hypothesis that the ✓ per por had a stem of the same type as that of ὕδωρ, etc.

In epic Greek we have in a large number of words the termination -φι, -φιν doing duty for inst. loc. and abl., Brugmann, *G.G.* § 478, *Monro, Grammar of the Homeric Dialect*², § 154 ff., *Delbrück, Vergl. Syntax*, i. p. 274 ff. The termination is attached to -o stems, δακρυόφι, ὀστεόφιν, ἰκρίόφιν; to -ā stems, ἐτέρηφι, δεξιτερήφι, βίηφι, ἡνωρέηφι; to diphthongal stems, ναύφι; and to -s stems, ὄχρεσφι, στήθεσφι, ὄρεσφι, *Monro, ib.* Further, we have also O 463, v 451, the termination -φης in λικριφίς. Cf. *Giles, Manual*², § 323.

With this latter form of the suffix in Greek we should certainly identify the Skt. instrumental ending -bhis, which in its turn is an ablaut variation of the dat.-abl. ending -bhyas < *-bhjes, Strachan, *B.B.* xiv. p. 173. Cf. Thumb, *Handbuch des Sanskrits*, § 232, who, however, seems to be unaware of the existence of -φις in Greek. -φιν again stands in relation to Skt. -bhyām < *-bhiēm, Hirt, *der indogermanische Ablaut*, § 378. -φισ and -φιν, then, are old case endings, and the origin of the form -φι is now clear. Forms like ὄχεσφι, ναῦφι = *vaḥoḥ-*hyām*, nāubhyām were analysed ὄχεσφι, ναῦφι + the common -ν ἐφελκυστικόν, and thus three case forms -φι, -φιν, and -φισ came to exist side by side. The question arises whether -φισ like -bhyas was originally in Gk. confined to the plural or not. Cases like ἐτέρηφι, Π 734, δεξιτερῇφι, τ 480, βιήφι, α 403, Monro, *ib.*, show that -φι, -φιν at any rate were used where the sense demands the singular. But θεόφιν, δακρυόφιν, μελάθροφιν, so far as the vocalism of the stem goes, may equally well be plural and have taken the place of an earlier *θεόφισ etc., after the endings -φι, -φιν, -φισ had ceased to be in living use. Cf. Thumb, *Handbuch*, p. 171. In K 458, ἀπὸ μὲν . . . κυνέην κεφαλῇφι ἔλονται, the sense undoubtedly calls for the plural: κεφαλῇφι(ν) then would formally be equivalent to *bālābhiṣ*. In ὄχεσφι again we have certainly a plural case form. The -ς stem is otherwise found only in the plural, ὄχεα, Δ 4. 419, Pindar, *Ol.* 4. 20, *Pyth.* 9. 18: ὄχεσφι would then be parallel to Skt. *manòbhyas*. λικριφίς itself can be nothing else than the inst. of an -ι stem *λίκρι-ς corresponding to *matibhiṣ*, cf. Prellwitz, *etym. wb.* p. 266. The history of the -φι endings, then, we may suppose to have been this: -φισ was originally plural as it is λικριφίς and as -bhyas is in Skt.; and -φιν was dual. Cf. Ebel, *Beiträge z.v. Spr.* ii. p. 70. After -φι had been evolved from -φιν as explained above, and these endings had dropped out of living usage, the -ς forms in their turn were analysed -φι + a -ς ἐφελκυστικόν. Thus popular etymology made -φιν, -φισ variants of one original form -φι, and absolutely identical in meaning. Which form was used on any particular occasion would depend entirely on metrical considerations. That -φισ dropped out of use was due to the circumstance that the presence of so many forms with ν ἐφ. adaptable to metrical emergencies pointed to -φιν and not to -φισ as the natural form to use where -φι was impossible. This disappearance of -φισ in favour of -φι and -φιν, and the total confusion of the latter forms, could of course take place only after -φισ had come to be felt as -φι-ς, and a -ς was at the disposal of the Greek language.

May we claim this -ς of the instrumental plural as the starting point of forms like μέχρις, πολλάκις, etc.? The first objection to our doing so would probably be this: If -φισ failed to maintain its ground against -φι and -φιν in the paradigm of the same noun, how can it be supposed to have affected forms like μέχρι(ς), with which it had no formal connection? An examination of the exx. shows that 'mobile' -ς is confined to adverbs, πολλάκι-ς, ἄχρι-ς, ἀμφί-ς, εὐθύ-ς, Rhod. ὅπυ-ς, αἰθι-ς, πέρυτι-ς. The ending -ιν, on the other hand, apart from ἐστί-ν, εἰσί-ν, etc., is a nominal termination. For πολλάκιν, ποσάκιν, etc.,

peculiar to Doric dialects, cf. Brugmann, *G.G.*³, §§ 249, 296. 10. This division of labour between the two suffixes -ν and -ς, I think, sufficiently explains why, on the supposition that forms like *λακρίφί-ς* furnished one starting point for 'mobile' -ς, this suffix, unlike -ν, disappeared from the noun paradigm. Instrumental plural forms are used in Skt. in adverbial function, *aktubhis*, *śānāis*, *śānakāis*, *pāracāis*, *tāvisibhis*, Whitney, *Sanskrit Grammar*², p. 409. Case forms of the dual do not appear to be used in adverbial function, and it is obvious that occasions for such use of the dual must have been rare. We are, therefore, entitled to assume that in the earliest Greek instrumental forms of the *λακρίφί-ς* type were employed in adverbial function, while still standing side by side with the dual -φιν in the paradigm of the noun. -φιν forms were not used as adverbs, and so after these case forms had disappeared from the living language, the -ς of φιν, now analysed as -φιν-ς, was attached solely to adverbs, while -φιν was retained as a traditional form in the noun paradigm.

Above it is assumed that -φι forms were secondary and deduced from dual and plural -φιν and -φινς. The argument will not suffer if -φι is supposed to have been an original case ending of the singular, differing from the plural only by the addition of -ς to the latter. That the acc. sing. and plur. are related in the same way seems now to be an abandoned theory, but a theory, it appears to me, which derives support from at least one other pair of cases. In the -ο stems, the loc. end in -οι and -οισι in the sg. and plur. respectively, the Skt. form corresponding to the latter ending in *εἴμ*. Now in Skt. all the plural cases of mas. and fem. nouns end in -ς, with the exception of the gen. and the loc. The gen. termination has cognates in other languages, and is, so to speak, beyond the range of impeachment; but the fact that the loc. suffix in Gk. and Skt. differs only in the final vowel, and that, apart from that vowel, the case in both languages is merely the loc. sg. -ē, -οι+ς, makes it almost necessary to suppose that the -ι in Gk. and the -u in Skt. are later additions. For the existence of a -u suffix in Skt., the presence side by side of *agnā* and *agnāu*, *bhārat* and *bhāratu*, Thumb, *Handbuch*, § 421, seem to offer evidence. And if we compare *πέρυτι* and *parut*, *bhāramasi* and *bhāramas*, *φέρομεν*, *αἰέ* and *αἰεί*, *υἰάν* and *υἰάν*, the evidence for an idg. -i suffix appears equally strong. *Açveṣu* and *ἵπποισι* then represent an original *ekōis+u, -i. We can now assume that the earliest Greek had a loc. sg. and a loc. plur. in -ο stems differing only in the addition of -ς to the latter. How this fact may have led to an adverbial 'mobile' -ς becomes now clear.

The use, principally in poetry, of the plural in sg. sense is familiar. Cf. Kurt Witte, *Singular u. Plural, Forschungen über Form u. Geschichte der griechischen Poesie*, and Glotta, i. 132 ff., Delbrück, *Vl. Syntax*, i. p. 162. *οἶκοι* and *οἶκοις*, and many other pairs, sg. and pl., of words with local reference, were used in precisely the same sense, and the result was bound to be the 'detachment' of -ς. It was felt that the -ς could be left out or inserted at will, was, in fact, precisely parallel to *ν ἐπελκ*. Cf. Giles, *Manual of Comparative Philology*³, pp. 287, 288.

The formation of the plural case ending by the addition of -ς to the sg. is to be seen also, I believe, in the -ο stem, dat. sg. -οι, and the so-called inst. plu. -οις, ἀγῶις, ἱπποῖς, Wilkaiς, Νύλῶνις, cf. Giles, *ib.* § 323, Thurneysen, *B.B.* viii. p. 269, n. 2. From this plural form, whatever its original meaning may have been, we can, I think, derive a very important class of adverbs in -ς. Bechtel, *Hauptprobleme d. idg. Lautlehre*, in discussing the long diphthong ου, comes to the conclusion, p. 275, that Doric βῶς is the original form of the nom. sg. and not an analogical formation from the acc. sg. βῶν, and compares Lat. bōs. The Attic βούς he would attribute to the influence of βοφός, βόφες, etc. For Brugmann, on the other hand, *Kurze vergleichende Grammatik*, § 146 Anm., the only certain condition for the disappearance of the second component of ου is the following -m of the acc. sg. Cases like dhārúṣ, θῆλυς, fēlare, at the same time induce him to allow simplification of ēj > ē before any consonant whatever, and partly in final position, agnāú, agnā, etc. J. Schmidt, again, *K.Z.* 27, 305, holds that ēj becomes ē before cons. and when final, while ōj and āj remain. In the discussion of these diphthongs a broad distinction should, I think, be made between those that are medial, as in dhārúṣ, θῆλυς, and those that are final, including here the diphthong followed by -m and -ς, and for this reason that the surroundings of the medial diphthong are constant, while those of the final are subject to change. The importance of the variation of the following sounds in determining the appearance of at any rate one diphthong, ev, is well known; the preposition ἐνς before a vowel, Cret. ἐνς ὀρθόν, remains unchanged; before a consonant, ἐς τόν, Brugmann, *G.G.* 74, the second component disappears without a trace. A similar sandhi-variation I assume took place also in the case of the long diphthongs; and so instead of explaining βούς:βῶς as due to analogical influence, I would make βούς:βῶς a parallel to ἐνς:ἐς, so gāús, n. sg.: gās, n. pl. < *gāuns, and the retention of the two forms parallel to the -āu and -ā of the Skt. dual. The disappearance of the second component of a long -i diphthong we have in Lat. rēs, rēbus, Skt. rās, rām, rāsu < *rēi-. That a Skt. form *rāis has not survived I would attribute to an accident of the same kind as has given us Δία and Ζῆν, but νῆα and ναῦν, instead of assuming with Schmidt that in ēj the -j disappears before consonants and when final, while ōj and āj remain. If we assume rather that variation in the representation of long diphthongs is the result of the existence of 'sentence doublets,' as I have suggested βούς:βῶς is, then we immediately have a satisfactory explanation of Gk. adverbs in -ως. Just as we get from *γοῖς, according to the following sound, βούς or βῶς, so from the instrumental plural *νέμοις we get νέοις or νέως, with, as we should expect, slurred accent, καλῶς, etc. This adverbial ending is comparatively rare in Homer, Monro², p. 95, but the instrumental plural is used adverbially in Skt., Whitney, *Sanskrit Grammar*², § 1112, and the extension of -ως forms in later Greek need not excite more surprise than e.g. the almost universal use of the -ς plural in modern English.

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