

## GENDER AND THE DEVELOPMENT OF THE GREEK DECLENSIONS

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IN ancient Greek the only comprehensive definition of gender is syntactical, namely, concord with special forms of the adjective or anaphorical pronouns, and, in classical Greek, of the article.<sup>1</sup> In a number of cases, where natural and grammatical gender overlap, a semantic element must also be taken into consideration: thus *πατήρ* 'father' is masculine, but *μήτηρ* 'mother' is feminine. Often enough a special derivational suffix is sufficient to indicate the gender of the substantive: e.g. all words formed with the suffix *-ῆν-* are masculine, whatever their semantic reference may be: *βασιλεύς* 'king', *ἱερεύς* 'priest', *ἀμφιφορεύς* 'amphora', etc. Finally, inflectional elements may play a role in gender distinction. From this point of view, however, the three genders fall into two different groups: masc. and fem. on one side, neuter on the other side. All neuter nouns and adjectives have the same form, which is usually peculiar to them, for the nominative, accusative and vocative of all three numbers. This is obviously an inherited feature which continues without alteration throughout the whole history of Greek, from ancient times to nowadays. The position of the masc. and fem. is different: there is no inflectional feature in the declensions of *πατήρ* and *μήτηρ* to indicate that the one word is masc. and the other fem. In fact, at least two of the three inflectional types normally recognized in Greek, the so called second and third declensions, include both masculines and feminines: *ῥάβδος*, Gen. *ῥάβδου* is fem., but *τόπος*, Gen. *τόπου* is masc.; *ἵππος*, Gen. *ἵππου* may be used with the same inflection both as masc. and as fem., according to the semantic referent;

<sup>1</sup> For the distinctions and for part of the terminology adopted here see Kurylowicz, *The Inflectional Categories of Indo-European*, Heidelberg, 1964, 32 ff.: in IE languages "gender is manifested by a special form of the attribute (adjective, pronominal adjective, article) or of the anaphorical pronoun". Gender, however, may be "motivated 1. by special derivational (or inflectional) elements; 2. by the sense of the root in certain primary nouns".

similarly in the third declension *σάλπιγξ*, Gen. *σάλπιγγος* is fem., but *στρόφιγξ*, Gen. *στρόφιγγος* is masc. Examples might be multiplied practically *ad infinitum*. In the so called first declension, however, masc. and fem. are morphologically contrasted in the nominative and genitive singular: *φυλή* (< -ā), Gen. *φυλῆς* (< ās) is fem., but the masc. Nom. *ναύτης* (< -ās) has a genitive *ναύτου*. The other cases are identical: *φυλήν*, *ναύτην* in the accusative, *φυλήι*, *ναύτηι* in the dative, *φυλαί*, *ναῦται* in the nominative plural, etc.<sup>1</sup>

The position of the adjectives is different. Except when they are substantivized, the gender distinction here fulfills a purely grammatical function, and semantic elements do not have any direct part in it. In most cases the three genders are morphologically distinguished and the majority of the Greek adjectives are organized on the pattern of masc. *νέος*, fem. *νέᾱ*, neuter *νέον*. However, almost all compounds and a certain number of non-compound adjectives do not distinguish between masc. and fem. in their inflection.<sup>2</sup>

How far this gender pattern overlaps with that which we can reconstruct for IE or for late IE is not easy to say.<sup>3</sup>

<sup>1</sup> Here and elsewhere I do not take into account the feminines in -ā (< \*-jā) and the rare epic masculines in -ā. For the nominatives in -a of masculine names found in dialect inscriptions see below, p. 16, note 2.

<sup>2</sup> For those adjectives, e.g. *πάτριος*, which do not distinguish morphologically between masc. and fem. see now W. Kastner, *Die griech. Adjective zweier Endungen auf -os*, Heidelberg, 1967. From Kastner's conclusions it seems clear that this type of two termination adjective is due to a multitude of causes: poetic language, analogy of pre-existing archaic forms, resistance to the creation of -ā/-η forms which would be homonymous with other substantives (e.g. masc. and fem. *ελευθέριος* vs. subst. *ελευθερία*) etc. It is very rarely that we deal with a genuinely archaic phenomenon. On the other hand the behaviour of the compound adjectives which do not distinguish between masc. and fem. is likely to be due to the survival of an archaic feature. For a possible explanation see I. Gerschewitsch in *SIFC*, XV (1938), 131 ff. and more recently the article by Chr. Stang quoted below in p. 22, note 3.

<sup>3</sup> In addition to the bibliography quoted in the standard works of reference and in such basic works as Lohman, *Genus und Sexus*, Göttingen, 1932, see more recently Martinet, *BSL*, 52 (1956), 183 ff.; Lehmann, *Language*, 34 (1958), 179 ff.; Fodor, *Lingua*, 7 (1959), 1-41 and 186-214; Gagnepain, *Les noms grecs en -os et en -ā. Contribution à l'étude du genre en Indo-Européen*, Paris, 1959 (with the reviews by Szemerényi, *Kratylos*, 8 (1963), 41 ff., and by Hoenigswald, *Language*, 39 (1963), 107 ff.).

There is no general agreement on the subject and I do not propose to discuss it here. What follows concentrates on a more limited problem: that of the origin, the development and the outcome of the inflectional distinction between masc. and fem. in the history of Greek. The starting point is not IE but a reconstructed Proto-Greek stage.

Even within these limits a considerable degree of abstraction is necessary. Two points in particular should be made clear from the start. First, the whole of this paper deals with Greek as if it were a unitary language progressing from Mycenaean to Homer, to Attic and finally to the koine. In other circumstances this would count as a gross oversimplification: to ignore the existence of the various dialects and the different evidence they provide could hardly be permissible. Yet in a general study of gender this attitude is necessary and in practice it proves to be less misleading than might appear *a priori*. Secondly, the morphological distinctions correlated with the category of gender should not be studied independently of those connected with other grammatical categories such as number, case, etc. A general framework is necessary. Fortunately this is now available in Hansjakob Seiler's brilliant attempt at a systematic description of the development of the Greek declensions.<sup>1</sup> In this paper most of his conclusions are accepted and presupposed.

2. From the short sketch of Greek declensions given above it is clear that gender seems to play a very small role in their patterning: if we ignore the neuter this is limited to the distinction between masculines and feminines of the *-a*-declension and to the adjectives. The situation changes radically when we look at Modern Greek: here the whole system of inflection is arranged according to the three basic dimensions of gender, number and case. In the case of the contrast between masc. and fem., gender distinctions essentially concern the sub-system of nominative and genitive singular. The feminine regularly has a zero morpheme in the

<sup>1</sup> H. Seiler, *Zur Systematik und Entwicklungsgeschichte der griech. Nominaldeklinaton*, *Glotta*, 37 (1958), 41 ff.

nominative and an *-s-* morpheme in the genitive; the masc. has an *-s-* morpheme in the nominative and a zero morpheme in the genitive. This is exemplified e.g. in the masculines Nom. /aðer'fos/ (ἀδερφός), Gen. /aðer'fu/ (ἀδερφοῦ); Nom. /pa'teras/ (πατέρας), Gen. /pa'tera/ (πατέρα); Nom. /'naftis/ (ναύτης), Gen. /'nafti/ (ναύτη); Nom. /ka'fes/ (καφές), Gen. /ka'fe/ (καφέ); Nom. /pa'pus/ (παππούς), Gen. /pa'pu/ (παππού), which may be compared with the feminines: Nom. /'methodo/ (μέθοδο), Gen. /'methodos/ (μέθοδος); Nom. /mi'tera/ (μητέρα), Gen. /mi'teras/ (μητέρας); Nom. /tro'fi/ (τροφή), Gen. /tro'fis/ (τροφής); Nom. /ne'ne/ (νενέ), Gen. /ne'nes/ (νενές); Nom. /ale'pu/ (άλεπού), Gen. /ale'pus/ (άλεπούς).<sup>1</sup>

This type of inflection is common to substantives and adjectives; the cases other than nom. and gen., and the plural only rarely distinguish between genders. After such standard works as Dieterich's *Untersuchungen* (1898),<sup>2</sup> it seems established that the essential features of the pattern were already in existence by the tenth century A.D., as the result of a long process of morphological change which probably started before the beginning of our era. This is part of that general rearrangement of the Greek declensions which involves the disappearance of one case, the dative, of a number, the dual, and of a whole inflectional type, that of the consonantal stems. The whole process need not be connected with problems of gender distinction. The disappearance of the consonantal stems is better interpreted as the final step in a long evolution which considerably simplified all the inflectional patterns. However, even if the loss of the type *πατήρ* and *μήτηρ* is not due to their failure to distinguish gender, their replacement by /pa'teras/ and /mi'tera/ respectively must be connected with their different gender.

<sup>1</sup> For the examples cf. A. Mirambel, *La langue grecque moderne*, Paris, 1959, 78 ff. and 102 ff.; for the type of description adopted see Seiler, op. cit.

<sup>2</sup> K. Dieterich, *Untersuchungen zur Geschichte der griech. Sprache*, Leipzig, 1898, 149 ff.; cf. also G. N. Hatzidakis, *Einleitung in die neugriech. Grammatik*, Leipzig, 1892, passim. I have not been able to see P. S. Costas, *An outline of the history of the Greek language*, Chicago, 1936.

In the final pattern, as it emerges in Byzantine times, we can see clearly the influence of one original model, that of the masculines and feminines of the *-a-* declension. The connection becomes even clearer when we realize that in the late koine and in the first centuries of our era their declension pattern shows clear signs of tending towards a type: Nom. *-ης (-as)*, Gen. *-η (-a)* for the masculines, Nom. *-η (-a)*, Gen. *-ης (-as)* for the feminines. The existence of this type is probably the reason why, even now in modern Greek, the inflectional distinction between masculine and feminine is complete only in the subsystem of nominative and genitive singular.<sup>1</sup> If so, however, it may be profitable to look at the origin of this distinction.

3. Whatever our theories for IE, for Proto-Greek one should probably reconstruct a stage in which all the three basic inflectional types included both masculines and feminines without any distinction.<sup>2</sup> The first radical change can now be dated to pre-Mycenaean times: special forms were created for the genitive and nominative singular of the *-a-* declension; otherwise the declension remained identical with that of the fem. By Mycenaean times the new type had the terminations Nom. sing. *ā(s)*, Gen. sing. *-āo*.<sup>3</sup> This declension of the masculines has no parallel in other IE languages. It is obviously a Greek innovation, and there is no doubt that the model for it

<sup>1</sup> See Seiler, *Glotta*, 37 (1958), 41 ff.

<sup>2</sup> Even for late IE this can hardly be challenged in the case of the thematic, consonantal and semiconsonantal stems. The position of the *-a-* stems is more doubtful. But in the case of Greek the presence of archaic instances of masc. nominatives in *-a* (probably *-ā*) in dialect inscriptions seems to show that, when the new declension of the masculines was created, there were already some masculines which did not differ inflectionally from the feminines. I have collected at least part of the evidence for the *-a* ending of the masc. nominatives in *Glotta*, 39 (1961), 103 ff.; for further additions see G. Daux, *BCH*, 85 (1961), 587, note 5.

<sup>3</sup> The Linear B nominatives in *-a* may be taken as ending in *-ā* or *-ās* and it is not possible to decide between the two interpretations. I owe to Dr. Chadwick the observation that if the first change were that of the Nom. in *-ā* to *-ās* (with that of the Gen. in *-ās* to *-āsjo* or *-ājjo* being only a necessary consequence of it), it would be necessary to accept an *-ās* interpretation of

was provided by the thematic inflection. Thus the *-s* ending of the Nom. masc. is also the mark of the Nom. sing. in the thematic declension, and the *-āo* termination is the phonetic treatment of either *\*-āsjo* or *\*-ājo* with *\*-sjo* or *\*-jo* from the genitive sing. of the thematic declension.<sup>1</sup> This is generally accepted and is, I believe, a correct but incomplete account of the innovation. Two problems in fact are constantly ignored. First, if the whole innovation is intended to give a morphological expression to the distinction of masculine and feminine, why is it limited to two forms of the singular and not extended to the other cases? Secondly, is it possible that an innovation which, one must repeat, is meant to create a formal distinction between masculines and feminines is built on the model of a declension which itself does not distinguish between masculines and feminines?

The first problem may be answered, I think, rather more easily than the second. The analogy must have worked on patterns such as the following:

the Mycenaean nominatives. I believe, however, that the first form to innovate was that of the genitive, *inter alia* because there are no survivals of masculines with an *-as* genitive in later Greek (see *Glotta*, 39 (1961), 93 ff. and Masson, *Glotta*, 43 (1965), 227 ff.). Consequently I do not find any chronological argument in favour of the one or the other suggestion (Myc. *-a* = *-ās* or *-ā*).

<sup>1</sup> There is a chronological problem which arises here: if we assume that a new form *\*-āsjo* was created on the model of *\*-osjo* or that a new form—*\*-ājo* (*\*-ājjo*) was built on *-ojo* (*\*-ojjo*), we would expect, in Linear B, either *\*-a-jo* and *-o-jo* or *-a-o* and *\*-o-o*, but not *-a-o* and *-o-jo*, which is what we find in fact; the same problem would arise even if we accepted Kiparsky's interpretation of the change *\*-osjo* > *-ov* (*Language*, 43 (1967), 629 ff.) The difficulty was first pointed out by H. Geiss in *Glotta*, 34 (1956), 142 ff. Soon after that Szemerényi (ibid. 195 ff.) suggested that *\*-ājjo* > *\*-ājo* > *-āo* at a very early stage owing to the long vowel preceding the geminate. This is possible, but difficult to prove. I wonder if one should not give more weight to the explanation first suggested to me by the late Professor Lucidi of the University of Rome: (Nom.) *-os* : (Gen.) *\*-osjo* :: (Nom.) *-ā* : (Gen.) X, where X = *\*-ājo*, at a stage in which the genitive ending of the thematic declension is still *\*-osjo*.—For the Attic genitive in *-ov* of the type *várou* I have no doubt that Szemerényi's explanation (op. cit. 200 ff.) is correct: *-ov* is due to the remodelling of the expected *\*-ω* (i.e. [ō] < *-āo*) on the standard genitive form *-ov* = [ō] of the thematic declension.

	Them. decl.	-a- decl.
Sing. Nom.	-os	-ā, -a
Voc.	-e	-ā/-a
Acc.	-on	-ān, -an
Gen.	-o(s)jo	-ās
Dat.	-ōi	-āi
Loc.	-oi	-ai ?
Plur. Nom. Voc.	-oi	-ai
Acc.	-ons	-āns (> -ans)
Gen.	-ōn	-ā(s)ōn
Dat. Loc.	-oisi	-ā(i)si
Instr.	-ōis (> -ois)	-āis (> -ais) ?? <sup>1</sup>

I have not included the dual, because the problems it creates are too difficult and would require a special discussion,<sup>2</sup> and I have left aside such forms as those of the ablative, of the instrumental sing. and of the original dative plural. They are not preserved in the later Greek declension, the position of Mycenaean is ambiguous, and what their form and their position may have been with regard to analogical changes is impossible to tell.<sup>3</sup> Needless to say, the remarkable similarity of the -a- inflection to the thematic inflection is not inherited

<sup>1</sup> \**-āns*, \**-ōis* and \**-āis* turned into *-ans*, *-ois* and *-ais* because of Osthoff's law, at a date which we obviously cannot know. For *-āis* see below, note 3.

<sup>2</sup> For the Mycenaean evidence see Lejeune, *RPh*, 1958, 205 ff. I am not completely convinced by Szemerényi's interpretation of the evidence in *Proceedings of the Cambridge Colloquium on Mycenaean Studies* (ed. by L. R. Palmer and J. Chadwick), Cambridge, 1966, 217 ff. One thing perhaps has not been sufficiently stressed. A nominative dual of the type of Attic κῶπᾶ is unlikely to arise in a dialect in which the change  $-ā > -η$  has not happened, because of its homonymity with the Nom. sing. The position of the masc. is of course different because the presence or absence of the *-s* would distinguish the singular from the dual. This should be kept in mind when considering the practice of Homer who has *-ā* duals only for the masculines (though it is conceivable that these represent a contraction of the Myc. *-a-e*).

<sup>3</sup> The instrumental plural of the *-a-* declension should have the form *-āphi*, which is in fact attested in Mycenaean. It is likely that Myc. also has *-ais*, which is analogical on *-ois*. Again in Myc. we find the first traces of *-ophi* analogical on *-āphi*. For the sake of simplicity I have not included the *-phi* forms in the schema above.

but is the result of a general process of analogy through which the *-a-* declension acquired most of the endings of the pronominal declension and of the thematic inflection. This process seems to be remarkably ancient and, I assume, it precedes the creation of the masculine declension. If this is correct, it is now clear why the innovation is limited to the nominative and genitive singular. Elsewhere a re-patterning of the *-a-* declension on the thematic declension would not have produced anything different from the pre-existing terminations.

4. This conclusion fits with the general assumption that the masculine declension was built on the model of the thematic declension. But if so, the second problem becomes more imperative. How could a declension which included words such as *ἵππος* used both as masculine ('horse') or as feminine ('mare') serve as model for a purely masculine declension? It would be possible to argue that the *feminina* and *epicoena* (such as *ἵππος*) are in a minority in the thematic declension, that they are obsolete formations, and that the type was felt to be predominantly masculine. But if that was so in pre-Mycenaean times we could hardly explain such Greek words as *ἀσάμινθος*, *λήκυθος*, *(σ)μήριυθος*, which are all feminine, belong to the thematic stems, and show, thanks to their suffix, that they are Greek borrowings from a pre-Greek substratum.<sup>1</sup> The same considerations arise e.g. from the word *δέλτος* 'a writing tablet', a borrowing from Semitic which is taken into the thematic declension and given feminine gender.<sup>2</sup> The date of the borrowing is, of course, uncertain.

<sup>1</sup> For *ἀσάμινθος* in particular we now know that the word was borrowed before our Linear B documents, as it appears in a Knossos sealing (*a-sa-mi-to*: cf. Olivier, *BSA*, 62 (1967), 291). Incidentally, this induces me not to accept M. L. West's suggestion in *Glotta*, 44 (1967), 144, according to which the authentic form is *ῥασάμινθος* and not *ἀσάμινθος*, and to feel sceptical about R. Renehan's 'original form' *\*σάμινθος* (*CR*, 18 (1968), 133 f.).

<sup>2</sup> The word and its origin are discussed by E. Masson, *Recherches sur les plus anciens emprunts sémitiques en grec*, Paris, 1967, 61 ff. I do not see any reason to doubt its Semitic provenance. As for the date of the borrowing, now that we know that some of the most ancient Greek borrowings from Semitic date at least from the Mycenaean period, I feel that any time between the Mycenaean period and e.g. 700 B.C. would be possible.

Emilia Masson thinks that the word came into Greek when the alphabet was first introduced, but a Mycenaean or pre-Mycenaean date would also be conceivable. These examples could be multiplied: what matters here is that they show that the thematic inflection still retained the possibility of acquiring new feminines at a relatively late date;<sup>1</sup> in fact at a date which must be contemporary with—or even later than—the creation of the new masculine declension of *-a-* stems. It then becomes necessary to try to define more closely the model for the innovation. I have mentioned before that in the most common adjectival types of Greek the gender distinction is of an inflectional type. The masculines of the type *νέος* belong to the thematic declension; the feminines of the type *νέα* belong to the *-a-* stems. Here the various morphs *-ος*, *-ον*, etc., in the masculine, *-α*, *-αν*, etc., in the feminine indicate gender as well as number and case: they cannot be considered any longer as simple allomorphs of the morphemes of nominative singular, accusative singular, etc.<sup>2</sup> In other words the final morph of *ἴππος* points to nominative and singular but the final morph of *νέος* points to nominative singular and masculine. If so, it is conceivable that the analogical process which created the declension of *ναύτης* found its initial model in the adjectival, and possibly in the pronominal<sup>3</sup> declension rather than in the substantive declension. Obviously enough,

<sup>1</sup> Why are these words feminine? This remains necessarily a mystery in the case of the *-ιθος* nouns. The position is different for those place-names like *Κόρινθος* which would be attracted into the general category of the feminine town-names (cf. *πόλις*). The Semitic *dlu* was probably feminine, but should we assume that this is why Greek *δέλτος* is feminine? For the problems caused by grammatical gender in linguistic borrowing see L. Deroy, *L'emprunt linguistique*, Paris, 1956, 257 ff.

<sup>2</sup> See Seiler, *Glotta*, 37 (1958), 42.

<sup>3</sup> I have not previously mentioned the pronouns, because one would think immediately of the anaphoric *ὁ*, *ἡ*, *τό*, which obviously cannot be at the origin of the innovation as it does not have the morph *-s* of the nominative singular. I wonder, however, if the influence of the anaphoric pronoun (i.e. of the article) may explain the retention of the asigmatic nominative in *-α* (masc.) in the Boeotian inscriptions and in a few other dialect texts (see above, p. 16, notes 2 and 3).

together with the adjectives one must range those substantives like *κόρφος* and *κόρφα* (Myc. *ko-wo*, *ko-wa*) which share with them the same type of gender distinction. It could be objected that in the case of the adjectives the morphs in question are *-ος*, *-ον*, *-οιο*, etc., rather than the simple *-ς*, *-ν*, *-ιο*, etc., and that we should expect a complete new formation on this model: in other words not *ναύτης* but *\*ναῦτος*. But this could hardly be acceptable. In the *-a-* stems, both masculine and feminine, *-a-* is not part of the ending but functions as a derivational element with a meaning of its own. It cannot be replaced, short of forming a new word or creating a number of homonyms. No doubt we are here in the presence of a process of remodelling by which a declension, though preserving its distinctive features, is simply repatterned on another.

5. If this analysis is correct it may clarify what otherwise seems to be an inexplicable kind of analogical change. But if we consider it within the general framework of the development of the Greek declensions another question arises. So far I have been arguing on the assumption that this prehistoric innovation is intended to separate the masculine from the feminines of the same declension. But if so, one may wonder why the same does not happen to the thematic stems. *Prima facie* the position does not seem to be widely different: there are thematic nouns both masculine and feminine and they have with the masculine adjectives of the type *νέος* the same morphological identity which the *-a-* nouns have with the feminine adjectives of the type *νέα*. This means that if on the one side we have new forms ending in *-ās*, *-āo*, on the other side we should expect a series of feminines ending in *\*-o*, *\*-os*. That this is something more than pure arguing *in vacuo* is shown by the modern Greek declension of the type *μέθοδο*, *μέθοδος*. But how does this only come to happen thousands of years after the first innovation? Only a very tentative answer is possible, and even so this will imply a great deal of highly hypothetical reconstruction, but an attempt can at least be made. If we consider the masculines belonging to the *-a-* stems in Homer, and, as far as one can see, in Linear B, we

find that they are essentially compounds of the type *ἐυμελής*, *ἰπποχάρμης*, etc., or nomina agentis in *-της* (< *-τᾶς*), such as *ἀγκυλομήτης*, *περικτίτης*, *ὀδίτης*, etc., which originally must all have been compounds or have included a large majority of compounds. There are also a number of proper names, most of which are again compound forms.<sup>1</sup> I have not mentioned the patronymics ending in *-ίδης*, which are widely represented in Homer, because they do not appear in Linear B and they are likely to be a later formation.<sup>2</sup> Consequently the earliest evidence seems to consist of a large number of compounds or of words which are closely connected with compounds. In the general framework of the *-a-* declension these words must have been in a rather ambiguous position between the feminine substantives on the one side and the feminine adjectives of the type *νέα* on the other side. In Greek, compounds—and especially some types of exocentric compounds—seem to occupy a middle position between substantives and adjectives.<sup>3</sup> Though the majority are perhaps nearer in their semantic and syntactical characteristics to adjectives, yet they frequently appear as substantives and occasionally entire categories come to be treated as substantives: this is the case, for instance, with the nomina agentis in *-της* (< *-τᾶς*), though with them there is still some evidence for an adjectival use.<sup>4</sup> But if that was so even in our reconstructed period it would become more understandable why the analogy with the inflection of the adjectives could have influenced the creation of a new masculine declension. Would the same causes have operated on the thematic declension? Obviously, there too some analogical

<sup>1</sup> For the Homeric evidence see E. Risch, *Wortbildung der homerischen Sprache*, Berlin und Leipzig, 1937, 14 ff.

<sup>2</sup> See e.g. Szemerényi, *Syncope in Greek and Indo-European*, Naples, 1964, 32–42. For the evidence, or rather the lack of evidence in dialect inscriptions, see Masson, *Glotta*, 43 (1965), 222 ff.

<sup>3</sup> In saying this, I believe that I find myself in agreement with the suggestions of Gerschewitsch in *SIFC*, 15 (1938), 131 ff. Similar conclusions for IE are reached by Chr. S. Stang, *Zum indoeuropäischen Adjektiven*, *Norsk Tidsskrift for Sprogvidenskap*, 17 (1954), 129–145.

<sup>4</sup> See Ernst Fraenkel, *Geschichte der griech. Nomina agentis*, Strassburg, 1910–12, II, 49 ff.

pressure must have acted on the compounds and the other two termination adjectives in order to bring them into line with the νέος/νέα type. That this is so we know, for instance, from some alternative uses in Homer and elsewhere. In the Iliad and in the Odyssey we find both ἀρίγνυτος and ἀριγνώτη, ἄμβροτος and ἀβρότη, πολυφόρβος and πολυφόρβην and the distinction is not always determined by metrical causes. On the other hand there must have been a rather strong counter-pressure. One of the causes may become apparent if we contrast the composition of the thematic declension with that of the -a- declension as in the following schema :

	Thematic decl.	-a- decl.
ὄρος	‘boundary’ : masc.	
ὁδός	‘path’ : fem.	νίκη (< -ā) ‘victory’ : fem.
ἵππος	‘horse’ : masc.	
ἵππος	‘mare’ : fem.	
πατροκτόνος	‘parricidal’ : masc. & fem.	περικτίτης ‘neighbour’ : masc.
πάτριος	‘fatherly’ : masc. & fem.	ἑμμελής ‘with good ashen spear’ : masc.
νέος	‘new’ : masc.	νέα ‘new’ : fem.

The thematic declension included a number of substantives which were either masculine or feminine, and also a number of substantives used either as masculines or as feminines according to their meaning. This may have been enough to counteract the pressure arising from the adjectival declension. Before the innovation which we are now discussing happened, \*ἑμμελίᾱ or the like was isolated in the -a- declension as a masculine, but πατροκτόνος or the like, though influenced by the masc. νέος, was supported by the existence of ἵππος (masc. and fem.) and ὁδός (fem.).

There is moreover a purely morphological fact which may have prevented the creation of the μέθοδο, μέθοδος type of inflection. A new genitive \*-ος would have been impossible if the nominative had not been at the same time changed to \*-ο.

But an *-o* termination of nominative fem. would have been identical with the *-o* termination of the nominative (masc.) of the anaphoric pronoun *ὁ*, and with the *-o* termination of the Nom. Voc. Acc. neuter of all pronouns and pronominal adjectives such as *τὸ*, *ἄλλο*, etc. This, incidentally, may be one of the reasons why the *μέθοδο*, *μέθοδος* inflection does not appear till modern Greek *dimotiki* and even now seems to be strongly resisted.

6. If my conclusions are correct, the innovation to which we owe the masculines of the first declension is due to a rather more complicated process than may appear at first sight. It is likely that in Greek (as in a number of IE languages) there was a tendency towards a dynamic expression of gender, but an ad hoc explanation is required in order to account for the linguistic realization which this tendency reached in the *-a*-declension but not in the other types of inflection. This I have found in the analogical pressure exercised on the *-a*-declension by the inflectional types described above. It follows that the very existence of the type *ναύτης* is due to two factors: syntactical tendency and morphemic analogy. Standard textbooks have stressed the first factor at the expense of the second, but in so doing they have ignored the further development of the language and failed to give a consistent explanation of its progress.

Even so, a number of problems remain open. If this analysis is acceptable, it is now clear why the innovation aiming at gender distinction affected only the *-a*-declension and stopped there. The required analogical pressure was missing in the case of the other declensions. Yet the creation of the *ναύτης* type gave Greek a model on which the whole distinction of gender was later to be repatterned. One may now wonder why, if the model went back to prehistoric times, its influence started operating only in the late koine and Byzantine period. Why, in other words, does the tendency of gender to become 'motivated' find its full expression only in that period, and not earlier or later? It may be useful to reformulate the question: is it true that after the creation of

*ναύτης* there was no change in the pattern of Greek gender distinction till the late koine? And if it is true, why was it so? Why this time gap? And what was there, in the time of the koine, which prompted this drastic change? It is obvious that we must reckon with a number of extralinguistic factors, some of which become prominent in the post-classical period: the large diffusion of Greek over non-Greek territory, and the bilingualism which followed, must have played a large part in any linguistic change which took place round this period.<sup>1</sup> Even so, I believe, we are allowed to look for some structural causes within the language itself.

What follows is necessarily tentative: it does not aim at exhausting the subject but only at indicating some directions in which the enquiry should proceed.

7. Gender is often connected with word-derivation and it may be convenient to tackle the problem from this angle. It has been pointed out that the number of nominal suffixes which are effectively productive in the history of Greek is, in fact, very small.<sup>2</sup> A simple look at all the standard works on the subject confirms this statement.<sup>3</sup> It is true, of course, that new words are not only formed via the regular processes of word derivation, but are occasionally simply modelled on existing forms. Yet, in the course of the process through which Greek becomes "une langue de culture" one notices more and more the emergence of a few suffixes which allow the unlimited formation of new words required by recent technology and more developed thought. Some of the old forms tend to remain isolated, though still in common use in the language: words like *πούς*, *χθών*, *χείρ*, *ναῦς*—and, in fact,

<sup>1</sup> One should also remember that the generalization of the article in post-Homeric times may have played a part in gender distinction. Morphologically it is likely to have had some influence on the forms of those two declensions to which it was closest: the thematic and *-a-* declension.

<sup>2</sup> See Chantraine, *La formation des noms en grec ancien*, Paris, 1933, xiii.

<sup>3</sup> cf. e.g. Chantraine, *op. cit.*; A. Debrunner, *Griech. Wortbildungslehre*, Heidelberg, 1917; Buck-Petersen, *A reverse index of Greek nouns and adjectives*, Chicago, 1944; E. Mayser, *Gramm. der griech. Papyri aus der Ptolemäerzeit*, I.3<sup>2</sup>, Berlin u. Leipzig, 1937; L. R. Palmer, *A grammar of Post-Ptolemaic Papyri*, I, 1, Oxford, 1945.

the whole category of root-nouns—remain outside the normal derivational pattern of the language. This repatterning of the derivational system which takes place well within historical times, is bound to produce a number of alterations in the morphology of the language. In particular, it is my suggestion that it had a considerable influence on the actual inflection and especially on its relationship to gender.

8. Among the suffixes which are productive in Greek and form nouns of the thematic declension, *-μος* and especially *-ισμος* and *-ασμος* are the most frequent: cf. words like *μερισμός*, *λακωνισμός*, *ἐνθουσιασμός*, etc. All the words formed with this suffix are masculine. Other suffixes behave in the same way. In fact there does not seem to be any productive suffix which is used to form feminine nouns of the thematic declension. This is bound to alter considerably the gender aspect of the declension. An example of the proportions of masculines and feminines in the fourth century B.C. may come from Plato. He uses in his works almost 540 different thematic nouns (masc. and fem.) of the second declension. Of these almost 490 are masculine, almost 50 are feminine.<sup>1</sup> A list of the feminine words<sup>2</sup> shows that they do not share common suffixes in their formation: an apparent—but only

<sup>1</sup> These statistics *should not* be taken as definitive but only as exemplifying (or rather pointing to) some tendencies in the language. They are far from complete for two reasons: 1. they are entirely based on F. Ast's *Lexicon Platonicum* (Leipzig, 1835–8), which in many cases is not reliable and which also indexes some works now considered spurious; 2. they refer exclusively to the different words appearing as lemmata in Ast and no attempt is made to take their frequency into account. Some difficulties also arise—especially in the case of compounds—in the distinction between adjectives and substantives. I have taken as substantives those words which—according to Ast—are always used as such in Plato. For the purpose of these statistics epicoena are counted as two different words if they are in fact used in Plato both as masc. and as fem. Thus I have distinguished between *ὁ ἵππος* 'horse' (e.g. in *Theaet.* 184 d *ἐν δουρείοις ἵπποις*) and *ἡ ἵππος* 'mare' (e.g. in *Hipp. mai.* 288 c *παγκάλαι . . . ἵπποι*).

<sup>2</sup> It may be useful to quote them here: *ἄμμος*, *ἄμπελος*, *ἄνοδος*, *ἄτραπος* (?), *βάλανος*, *βάσανος*, *βίβλος*, *γνάθος*, *γύψος*, *δέλτος*, *διάλεκτος* (?), *διάμετρος* (?), *διέξοδος*, *δίδοδος*, *δρόσος*, *εἰσοδος*, *ἐξοδος*, *ἐπάνοδος*, *ἐφοδος*, *ἤπειρος*, *θεός*, *θόλος*, *ἵππος*, *κάθοδος*, *κάρδοπος*, *κέρκος*, *κόπρος*, *κυπάριττος*, *λεώφορος* (?), *μέθοδος*, *νήσος*, *νόσος*, *ὀδός*, *οἶμος* (used both as masc. and fem.), *παρθένος*, *πανσέληνος* (?),

an apparent—exception is given by 13 words which are compounds of *ὁδός* ‘road, path’, a word which is itself feminine.<sup>1</sup> The remainder may also be considered from a different point of view. Are they new formations? The result of a rapid enquiry in Liddell-Scott-Jones is that none of them appears for the first time in Plato. 20 are first found in Homer and all the others—with 5 exceptions—are found in Herodotus and/or in Pindar. Four of the five exceptions are also found before Plato in Aristophanes and there is no reason to think that they are new formations there.<sup>2</sup> The relevant point here is not so much the low frequency of the feminines (which represent *ca.* 10 per cent of the total), but the fact that they remain isolated. They do not fit into any morphological pattern.

Equally interesting is an inquiry into the productive suffixes of the consonantal stems. Plato uses more than 770 third declension substantives: of these more than 600 are feminine. The reason for this disproportion between masculines and feminines becomes clear when we realize that more than 60 per cent of the total is given by feminine nouns formed with the suffixes *-της*, *-τητος* (as in *λευκότης*) and *-σις* (as in *μάθησις*), in other words by abstract nouns most of which are new formations.<sup>3</sup>

Admittedly, this richness in *-της* and *-σις* nouns is connected with Plato’s subject-matter, but even so one cannot forget that the language used by Plato is not yet a purely technical language, and because of that it can be taken as representative of the language of his time. What matters here is that the suffixes *-της* and *-σις* are sufficient to identify the words as

*πεντηκοντόρος* (?), *πλάτανος*, *περίοδος*, *πλίνθος*, *πρόσοδος*, *ράβδος*, *σμήρινθος*, *σύνοδος*, *τάφρος*, *τρίοδος*, *τροφός*, *ὑαλος*, *φηγός*, *ψήφος* (a question mark follows those words which might be considered adjectives).

<sup>1</sup> These compounds are mostly found before Plato in Hom., Hdt., Pi., etc.; according to LSJ only two appear for the first time in Plato.

<sup>2</sup> Only one word, *διάμετρος*, seems to appear for the first time in Plato, at least in the meaning in which Plato uses it. Its gender is obviously due to that of the substantive *γραμμή*.

<sup>3</sup> For these figures and for those which follow see above, p. 26, note 1.

feminine. For the rest Plato uses a number of feminines ending in *-is*, *-ιδος* (ca. 25 per cent of the feminines, if we exclude the *-της* and *-σις* nouns), or in unaccented *-is* with genitive in *-εως* or in *-ιδος* (ca. 24 per cent); a few feminines end in *-ας*, *-αδος* (ca. 12 per cent), etc. As for the masculines (ca. 170), the most frequent terminations are *-εως* (ca. 17 per cent of the masculines), *-ων* (ca. 17 per cent), *-τηρ* (ca. 11 per cent), etc. The other words are divided among various types, including a certain number of guttural stems. Once more it is remarkable that, though the gender of the majority of the words used cannot be inferred from the actual morphology of the word, nevertheless whenever we find a form which fits into a productive and widely represented derivational pattern its gender becomes predictable: *-της* and *-σις* nouns are feminine, *-εως* nouns are masculine and so on.

9. So far I have been considering vocabulary words only: often enough studies in word formation tend to leave aside what looks like a vast and unpromising field, that of proper names. But in a study of gender distinction this can hardly be omitted.

There is no comprehensive and reliable study on the subject and what follows is necessarily somewhat vague. It is well known that on the whole Greek proper names are grouped in the same declensions as common nouns. That this is so is shown for instance by the fact that Greek grammarians, starting with Dionysios Thrax, tend to select as examples for their inflectional rules proper names rather than common nouns. It is then conceivable—and indeed likely—that proper names had some influence in the development of morphological patterns.

For obvious historical reasons our knowledge of feminine names is much poorer than that of masculine names. Even so in 1901–3 Kirchner was able to list ca. 360 different names of women who had Athenian citizenship: most of them belong to the fourth–second centuries B.C. Of these names ca. 72 per cent end in  $\bar{a}/-η/-\tilde{a}$  and belong to the first declension; ca. 12 per cent end in *-ω* (third decl. fem.), ca. 6 per cent end

in *-ις*, *-ιδος* and the rest are neuters.<sup>1</sup> There are two examples of names ending in *-ας*, *-αδος* and one example of name ending in *-ων* (*Πλαγγών*). These figures are now out-of-date thanks to new inscriptions and the new evidence available, but it is doubtful that, if they were based on a more modern prosopography, the proportions in which we are interested would be altered in any considerable way. These results, however, can be compared with those obtained by counting the names registered in Bechtel's *Die attische Frauennamen*, Göttingen 1902. The list differs from that of Kirchner because it includes names of non-citizens and fictional names, known from literature, down to Roman times. In all there are ca. 985 different names: of these ca. 62 per cent end in *-ᾱ/-ῆ/-ᾶ*, ca. 15 per cent end in *-ις*, *-ιδος*, ca. 8 per cent end in *-ω* and ca. 1 per cent end in *-ας*, *-αδος*. There are two possible examples of names ending in *-ων*.<sup>2</sup> Once more, the rest are neuter names. The different proportions, especially of *-ω* and *-ις* names, in the lists of Kirchner and Bechtel are interesting and reflect the differing criteria of composition of the lists. The general results, however, do not vary much: of the various categories of feminine nouns belonging to the athematic declension only three are represented among the proper names. Of these one type (*-ω*) is exclusively feminine, the two others (*-ις* and *-ᾶς*) are only productive insofar as they are used for feminines.

For the masculines the evidence is much larger. Kirchner lists more than 15,000 individuals known by name in Attic

<sup>1</sup> My figures are based on all the names of Attic women listed in J. Kirchner's *Prosopographia Attica*, Berlin, 1901-3. I have taken into account the *addenda et corrigenda* published in volume II, 439-489, but I have not considered the names listed in J. Sundwall, *Nachträge zur Prosopographia Attica*, Helsingfors, 1910. Here too I have indexed only different names and I have not taken frequency into account.

<sup>2</sup> Bechtel mentions *Ἀνθηδών* (IG I-II<sup>3</sup> 12373), *Πλαγγών* (cf. Kirchner, *PA* s.v.) and *Τεργιδών* (Aristoph. *Thesm.* 1175): of these the first name is very uncertain (see Conze, *Att. Grabrel.* 419: the stone is now lost); the third one may well be a joke and it is quite possible that it refers to a man. The only sound example *Πλαγγών* is found both in Bechtel and in Kirchner but is isolated.

inscriptions and literature. The vast majority are men. I have based my reckoning on successive series of 210 items chosen on every 1,000 items of Kirchner's list. The result is a list of 3,150 persons, yielding 632 different masculine names. Of these 44 per cent belong to the thematic declension, 20 per cent belong to the *-a-* declension and end in *-ης* or *-ās*, 17 per cent are *-s-* stems of the type *Δημοσθένης* (which tend to be confused with the *-a-* stems), and 17 per cent belong to other types of the third declension. Here the vast majority is represented by nasal stems ending in *-ων*, which are a good 10 per cent of the sum total. If this last figure is compared with that given for the feminines (two possible examples in Bechtel, one in Kirchner), it shows that though Greek knows both masculine and feminine nouns ending in *-ων*, in the case of proper names this formation is on the whole specialized for the masculines.

Even clearer is the case of the *-s-* stems. The adjectives ending in *-ης* are used both as masculine and as feminine in Greek, but all the *-ης* names are masculine without exception. The same applies to the thematic declension. There is no feminine name belonging to it in Kirchner; Bechtel can only quote *Νίνος*, the name of a *ιέρεια* accused as *φίλτρα ποιούσης τοῖς νέοις* according to *Schol. Dem. XIX 281*. It can hardly be considered a very Greek sounding name, even if the tradition is correct.

On the one side, then, the existing derivational types appear to be more closely connected with gender distinction in the case of proper names than in the case of vocabulary words; on the other side it looks as if the repatterning of the gender distinction had here gone further than in the case of common nouns or adjectives. Alongside the masc. *Ἀρισταγόρας* there is a fem. *Ἀρισταγόρα*; alongside the masc. *Τιμόστρατος* a fem. *Τιμοστράτη*.<sup>1</sup> I doubt that the fem. *Ξενοκράτεια* is felt

<sup>1</sup> Bechtel correctly points out that in a very large number of cases, "der weibliche Vollname nur das vierte Masculinum sei" (op. cit. 38). From this point of view the comparison with the adjective is obvious and this freedom in creating feminines near masculine compounds appears all the more remarkable.

as having a different relationship with *Ξενοκράτης* from that which either of the two previous examples has with its respective masculine, and I also suspect that at some stage in the history of Attic the *-ω* feminines were felt as coupled with the *-ων* masculines : cf. *Ἀρίστων, Ἀριστώ* ; *Ἄγων, Ἄγώ*, etc.<sup>1</sup>

10. From this very sketchy and (I hasten to repeat) superficial description of some suffixes productive in the history of Greek, a relatively consistent picture emerges : a number of new and unitary derivational patterns are established—and these are also unitary from the point of view of gender. Old words tend to remain isolated, and it is in these old formations that gender tends to remain unpredictable. Once more the root-nouns are the standard example.

Thus, in the course of the history of Greek the category of gender tends to become motivated—to use Kuryłowicz's terminology—by some special derivational elements. But this is not enough. The final development points to a different expression of gender : no longer only through derivation but through inflection as well. We are now back to the question asked above (par. 6) : is it true that this last process suddenly starts—unprepared—in the late koine period ? We have seen that even before then word-formation had tended to become gender-bound, but are we now in a position to establish a one-to-one relationship between word inflection on the one hand and these new gender-bound processes of word-formation on the other hand ?

There is little one can say about the thematic declension. I have already pointed out that the feminines remain outside the normal derivational processes ; consequently they are isolated and tend to disappear. The full details of this process

<sup>1</sup> This is a synchronic statement. I am well aware that in their origin *-ων* masculines and *-ω* feminines have little or nothing in common : in most cases the latter are hypocoristics of compounds. My connection between the two types is valid only for Attic and for a short period. Elsewhere—but at a later time—a connection was established between the masculines in *-ās* and the feminines in *-ōs*, which replaced the original *-ω* forms ; cf. W. Schulze, *Kleine Schriften*, 390 f.

were given long ago in such a standard manual as Hatzidakis' *Einleitung* (1892), and I shall not repeat them.<sup>1</sup> Frequently the gender of the word is changed either to masc. or to neuter, or the word is replaced by a different one. At the same time the two termination adjectives are brought back into the standard pattern with three terminations. With the exception of a few learned words, the thematic declension then becomes totally masculine and its morphs now distinguish gender as well as case and number. The final morph of *ἴππος* is now parallel in all respects to the final morph of *νέος*: it indicates nom. sing. masc. I have shown before that the proper names had anticipated this development.

So far I have treated the third declension as a unit. This is historically correct, and one can speak for Proto-Greek of a special inflectional type which constantly uses the same endings and joins them directly to the stem of the word. A few examples of reconstructed declensions (in the sing.) can illustrate it:

N.	phulak-s	khalkēu-s	mātēr	-genēs	-kleuēs
A.	phulak-η	khalkēu-η	māter-η	-genes-η	-kleues-η
G.	phulak-os	khalkēu-os	mātr-os	-genes-os	-kleues-os
D.	phulak-ei	khalkēu-ei	mātr-ei	-genes-ei ?	-kleues-ei ?
L.	phulak-i	khalkēu-i	mātr-i	-genes-i	-kleues-i <sup>2</sup>

<sup>1</sup> For the nouns belonging to this declension in classical times see A. R. Lange, *De substantivis femininis graecis*, Diss. Leipzig, 1885, and especially H. Lommel, *Studien über die idg. Femininbildung*, Diss. Göttingen, 1912. In this context a reference to Aristophanes' locus classicus: *Nubes* 658 ff. is almost de rigueur; cf. Wackernagel, *Vorlesungen über Syntax*, II, 1 ff.—It is also useful to notice the process by which the *-पालος* compounds, which originally were both masc. and fem., were replaced by *-πάλης* forms for the masculine (and *-पालις* for the fem.) at a relatively early stage.

<sup>2</sup> The vocative and some case forms are omitted: a reconstruction would impose a number of arbitrary decisions. Even so, the forms written above are not altogether consistent and a number of problems are ignored. Here I shall mention only two points: (1) it is possible that the correct transcription should be *khalkēus* (and not *-ēus*): I have written *-ēus* because this is the conventional form; (2) here and elsewhere /ph/, /kh/, etc., do not point to a biphonemic interpretation of the aspirates, but are, once more, conventional transcriptions.

Needless to say, these forms need not be chronologically consistent and the question marks after them should be multiplied. In particular, one should not perhaps speak of an intervocalic *-s-* preserved at this stage of Proto-Greek; however, it is likely that even if the change  $V_sV > VhV$  had already taken place, at this stage *-h-* would still count as an allophone of */s/*.

In spite of these and similar reservations it remains possible to compare the reconstructed types with their continuation in e.g. fourth century Attic. What follows is given in a very rough phonemic transcription: <sup>1</sup>

N.	/phylaks	khalkeus	mētēr	-genēs	-klēs
A.	phylaka	khalkeā	mētera	-genē	-kleā
				(-genēn)	
G.	phylakos	khalkeōs	mētros	-genōs	-kleōs
				(-genō)	
D.	phylaki	khalkē	mētri	-genē	-klē/

A number of phonetic changes have completely altered the pattern. The endings now vary from one type to another and so does the form of the stem. In other words from a synchronic point of view in fourth-century Attic there is no such thing as a third declension; there are a number of inflectional types which can only be defined negatively in that they differ from the *-a-* declension and they differ from the thematic declension. If one could ignore the considerable gap in time, this analysis would receive some support from that of the Greek grammarians who wrote much later but based their description on the more conservative spelling. The third

<sup>1</sup> For */ph/*, etc., see above p. 32, note 2. I have chosen a stage in which Attic opposed */ē/* (< *ei*, etc.) to */ē̄/* (from IE \**ē*, \**ā*, etc.) and */ē/* to */ē̄/*. Once more for *-eus* I have followed the conventional transcription. I am not certain about the phonemic interpretation of Attic diphthongs. If they were biphenemic, [u] would probably be an allophone of */y/*. For the compounds of the type *Ἀμιστογένης* I have given two different forms for the genitive and the accusative respectively. From the fourth century onwards Attic shows a tendency to confuse the *-ης* names of the third declension with the masculines of the *-a-* declension. For the details of the epigraphical evidence see A. S. Henry, *CQ*, 17 (1967), 293 ff.

declension is, of course, a modern discovery (or should we call it invention?). The first grammarian from whom we have a complete description of Greek inflectional rules, Theodosius Alexandrinus (fourth century A.D.) lists 56 different inflectional types.

11. This is bound to have some impact on our theory of gender. So far, I have been making a sharp distinction between word-derivation and word-inflection; I have pointed out that word-derivation becomes gender-bound, but word-inflection does not. But it now appears that, as a consequence of the changes which altered the phonetic aspect of Greek in the preclassical and classical period, the margin between the two may disappear altogether.<sup>1</sup> *χαλκεύς* could be a good example: in Proto-Greek and in early Greek *-eu-* is obviously a derivational suffix to which endings are added, but in later Greek one can only speak of a special declension. Similar considerations could be applied in Attic to the *-i-* stems of the type *πόλις* or *γένεσις*.

The best example, however, is that of the *-oi-* stems (such as *πειθῶ*), which, as we have seen, are feminine only and productive in the formation of the proper names. We may contrast the Proto-Greek and the classical Greek declensions as follows:

	Proto-Greek	Attic
N.	-ōi	-ῶ
V.	-oi	-oi
A.	-oi-ṛ	-ῶ
G.	-oi-os	-ος
D.	-oi-ei ?	} -oi
L.	-oi-i ?	

<sup>1</sup> In the third declension a few morphological types remain both masc. and fem. till a later period. This is the case for instance with the stems ending in a velar (*ἡ σάλπιγξ, ὁ στροφέιγξ*). Though the proper names with this type of ending are all masculine, common nouns can be either masc. or fem. It is interesting to notice that, when, in the second century A.D., Phrynichus was giving warnings against mistaking the gender of nouns, most of them were concerned with this particular category and with the nouns of the second declension.

Once more a synchronic description is bound to recognize in the first case a root + suffix + the standard endings of the athematic declension, in the second case a special type of feminine inflection.<sup>1</sup> Students of Byzantine and Modern Greek know the importance which this feminine formation had in the later developments of the language, where it was used not only for proper names but also for a large number of professional names.

12. To sum up : in the course of its history Greek passes from an almost completely unmotivated type of grammatical gender to a form of grammatical gender which is inflectionally motivated. The first sign of this process is the creation of the masculine declension of the *-a-* stems ; the final outcome appears only in late Byzantine times where the new pattern is obviously built on the model of the *-a-* declension. At first sight the centuries in between appear uneventful and no change seems to occur. However, further enquiry reveals that, at least as far as word derivation is concerned, the Greek pattern was being gradually altered ; in the classical period almost all productive suffixes are gender-bound. In other words the important step, i.e. that leading to a morphological definition of gender, had already been taken (or was being taken) before the koine. The only important contribution of this latter period would then appear to be the stress laid on the inflectional motivation of gender. But even this view can be challenged. I have tried to show above that our distinction between inflection and derivation is often unsatisfactory if looked at from a synchronic point of view. For obvious historical reasons we tend to classify as suffixes some morphs which, in fact, during the classical period behave only as inflectional elements ; thus we speak of stems formed with an *-oi-* suffix, while in fact in classical Attic the suffix no longer exists as such and its phonemes simply help to define a particular declension. If that is so, we are now in possession of one of the missing links between Greek linguistic prehistory

<sup>1</sup> It is again arbitrary to speak of intervocalic  $\xi$  in Greek (see above, *i propos* of *-s-*), but this need not destroy the point made above.

and late koine. The *-oi-* declension is purely feminine, just as the *-ēu-* declension is purely masculine—but these, as we have seen, are not derivational but inflectional types. In other words, gender now appears to be inflectionally motivated in declensions other than the *-a-* declension. This is the result of a very gradual, almost insensible, process which takes place through the whole of the classical period. What then is the new product of the late koine? Certainly not the inflectional motivation of gender: I have tried to show that this had been foreshadowed by the creation of the *-a-* declension and was becoming perceptible in classical times. What is new is rather the replacement of the many and various inflectional expression of gender by a more economical system repatterned on the *-a-* declension. In fact, this drive towards simplicity, economy and regularity is simply a part of the process which lost to Greek the consonantal declension and simplified drastically the apparent irregularities of the other inflectional types. As far as the new dynamic expression of gender is concerned, Byzantine Greek did not create anything different, but only brought to its ultimate conclusion a process of which we can see the beginning in the language of classical Greece.

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