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JANUARY 15, 1913

Four Times a Month

INDO-EUROPEAN VERBAL FLEXION WAS  
ANALYTICAL  
(A RETURN TO BOPP)



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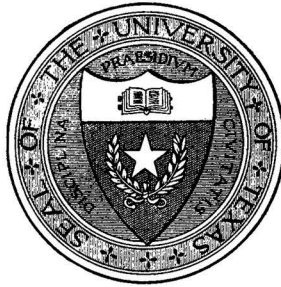
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## INDO-EUROPEAN VERBAL FLEXION WAS ANALYTICAL.

### *Surviving analytical complexes.*

The process of evolution in language, like the biological process, starts with a minimum of origination; advances with a maximum of adaptation combination development; ends in what appears to us as greater functional precision and simplification or, in the inevitable metaphor of our manner of speaking, decay and loss.

1. In the following pages I shall attempt to show how the IE. verbal flexion grew out of analytical complexes of rootnouns, in infinitival and participial function, followed by the normal forms of the verbs 'ire', 'esse', 'stare', etc. Such groups were more nearly like modern English than Homeric Greek. These complexes were finally isolated into the forms we now interpret as presents, futures, perfects, aorists, desideratives, middles. Phonetic phenomena such as haplology, sometimes of the not quite perfect sort seen in Lat. *ex(sec)ta*, are largely in evidence, but of specific new assumptions I have made but three: 1st, on the basis of the samdhi variation between the final diphthong *-e* and *-a* in Sanskrit, that doublets like *āye* : Doric *āyete*, vocatives like *νύμφα* : Skr. *kānye*, 1st person perfects like *οίδα* : Lat. *videi*, 2d person *οισθα* : *vidisti* are phenomena of IE. samdhi; 2d, that when nominative *-s* was followed in a complex by a vowel initial it yielded *ss*; 3d, that an IE. compound, formed and isolated during the period when an accented syllable was causing in its predecessor the weakening that we call the zero-grade, would suffer loss of any short vowel, whether *i* or *u*, in the pretonic position.

2. The IE. complexes that I have assumed do not range more widely than such historically attested instances as the following in Greek (examples chiefly extracted from Goodwin's Greek Moods and Tenses 772, 830, 895): (1) *ἐπίτεξ εἰούσα* (Hdt.) quasi 'par-turiens'; (2) *ἀν ἧ θέλουσα* (Soph.) "whatever she wants"; (3) *οὐδέ τις ἔστιν ἀρὴν καὶ λοιγὸν ἀμῦναι* (Homer) "nor is there any one to [= shall, can any one] keep off curse and ruin"; (4) *ἀλλά τις εἴη εἰπεῖν* (Homer) "but let some one go-to-tell" [= tell]; (5) *βῆ φεύγων* (Homer) "he took flight" in contrast with *βῆ δὲ θέειν* "he started to run"; (6)

ἦε ταύτην ἀλέων διὰ παντός (Hdt.) "he always praised her (he went on praising her)".

3. Corresponding Sanskrit examples, chiefly from Whitney's Grammar 1075, are: (1) *parikrīḍanta āsan* (MS.) "they were playing about"; (2) *syantsyánt syāt* "may be about to drive"; (3) *ῥῥῆνῶν तिष्ठasi* (RV.) 'audiens stas'; (4) *ṛativāvadato 'tiṣṭhan* (Āit. Br.) "kept vehemently refusing"; (5) *vibhājann éti* (RV.) "he ever gives away"; (6) *agnir . . dahann āii* (PB.) "Agni kept burning"; (7) *parājitā yanto* (TB.; = devicti euntes) "getting beaten"; (8) *ghnantaḥ caranti* (PB.; = caedentes eunt) "they make a practice of beating".

4. The Avesta has particularly instructive examples for the infinitive complexes with 'esse' and 'ire'. I have extracted the following from Bartholomae Wbch. 271 m, for *asti* 'est'; (1) *θwōi ahi* = *tueri es* (in *tuendo es*), with the sense of *beas* rather than *defendis*; (2) *vōi ahi* = *gaudere es*, i. e. *delectas*; (3) *kābe anhaḥ* = *amare erit*, *amabit*; (4) *nōiḥ hāu ās vaoze* = *neque ille erat* (for *est*) *vehere*, i. e. *non vehit*; (5) *asti bərəθe* (959) = *est ferendo* (cf. *est solvendo*), i. e. 'potitur, possidet'. Note with the locative of nouns (6) OPers. *ašnaiy āham* = *in* *progressione eram*, i. e. "I was marching"; (7) Av. *ahmi θwahmi-vīčīθōi* (Y. 32, 8) = "sum in tua secretionem", i. e. "werde ich von dir geschieden werden"; (8) *yaḥ usnəm aēiti vaēdya* (Y. 10, 13) = *si voluntatum in* *adipiscendo*, i. e. *adipiscitur*. For the root *ay*, as in the last example, but rather with the sense of 'versari', we have (9) *aēni bərəθi* = *eam* (i. e. *ibo*) *ferre* ("ich will künftig hervorbringen"). Note further for 'stare' (1601, 2) (10) *tē hištanti γčarəγčarəntiš* = "illae res stant fluctuantes" (cf. § 3, 4).

#### *Ellipsis in analytical complexes.*

5. The ellipsis of the leading verb, when a mere copula, is admissible for all numbers and persons. In the Sanskrit periphrastic future (v. Whitney § 944) it is the rule to write the agent noun alone in the singular, dual, plural for the third persons (i. e. *dātā, dātārāu, dātāras*), but to express the 1st and 2d persons of all the numbers by the singular noun welded with the appropriate forms of the copula (i. e. sg. *dātāsmi* *si*, pl. *smas* *stha*). But the ellipsis sometimes affects the 1st and 2d persons, and dual and plural forms of the noun prius are sometimes employed in those persons. Barring the time note, the future connotation, *auctor sum es est, auctores sumus estis sunt* represent a formation identical with the

Sanskrit future periphrastic.<sup>1</sup> If Horace *C. I. 9. 21*, *nunc et latentis proditor intimo/gratus puellae risus ab angulo*, were Vedic prose, we should not need to trouble, as the Horatian annotators needs must, over zeugma in *proditor* (Skr. *pradātā*[*r*]), for it would carry *est* (or *sit*) with it, making *proditor* = *prodat*.

6. Another ellipsis to which attention may be called at the beginning is that of the copula with the infinitive in Sanskrit, e. g. *nākim indro nīkartave* "Indra is not to be put down" (Whitney § 982 c). The Latin historical infinitive is no doubt analogous, and it becomes an open question whether the 2d pl. pass. *agimini* is not the infinitive rather than the participle (sc. *estis*).

*The REX<sup>h</sup>ERO forms (relatively late IE.)*

7. In the Rig Veda we have recorded forms not a few centuries closer to the protoethnic speech than any other forms of record, and that system of verbal flexion now generally known as the injunctive there has the value of past and present narrative tenses, and of subjunctives and optatives, which are the emotional forms of verbal utterance (35). After the Rig Veda there was a gradual elimination of such timelessness and moodlessness in the injunctive system. This injunctive flux was also represented (?), as Professor Bloomfield has pointed out in *AJPh. 33, 1 sq.*, in a different sort of moodlessness: "As far as earliest Hindu speech is concerned, ideas which are expressed in a given mood may be, and are, on a large and surprising scale, expressed equally well in another mood, the circumstances under which the two statements are made being precisely the same". Especially note the interchange of the future with the subjunctive, imperative, precative (v. exx. l. c. 29; Speyer *Ved. u. Skr. Syntax* 183, where the subjunctive is pronounced the most usual form of the future in the mantra or song parts of the Vedas). In Latin, *erit* and all the *-am* 1st persons are now explained as original subjunctives. Accordingly, in the exposition of the injunctive forms to follow I shall deem it expedient to waste no further words when I present promiscuously forms classified as presents, futures, aorists, subjunctives; nor shall I specially remark on the occasional middle forms included among the actives.

8. And now, to plunge abruptly, I propose to study forms of the

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<sup>1</sup> The Latin combination *auctor est* (cf. Umbr. *uhtur* 'magistratus collegii cuiusdam') belongs with Av. *aog* 'praedicare' (Bartholomae *Wbch.* 37) and not, as Prellwitz correctly sees, directly to *εβχομαι*.

*rex*<sup>ˆ</sup>*ero* type on the supposition that *rex*<sup>ˆ</sup><sup>1</sup> is, or was, a rootnoun in the nominative, while <sup>ˆ</sup>*ero* is identical with Latin *ero eris erit*, original paradigm ESO ESES(I) ESET(I), etc.

9. This assumes that the rootnoun *rēx* was participial enough in its nature to govern the accusative, i. e. was a transitive noun. I note Vergil's *populum late regem*, where *regem* = *dominantem*; also cf. in Horace (cited in § 5) *proditor = prodens*. Examples of transitive rootnouns in composition in the Rig Veda are *āhīm apāḥ pariṣṭhām* = *draconem aquas circumstantem*; *yām yajñām paribhār dsi* = *quod sacrum circumstans es*. Similar accusative regimen with nouns adjective, e. g. *gnarures*<sup>2</sup> *esse hanc rem* (Plautus, Mo. 100), and substantive (v. exx. in Riemann et Goelzer Gram. Comp. du Grec et du Latin, Syntaxe, §§ 53-54) is not so rare. An intransitive prius in *lux*<sup>ˆ</sup>*erit*.

10. The conviction must have been forced on all who have dealt studiously with the Sanskrit and Avestan vocabularies that the monosyllabic and rootnouns are remnants of a formation of very much wider extent; and the conclusion will not be remote that these rootnouns are, in fact, nominally inflected roots. On the general instability of the monosyllable cf. Wackernagel in IF. Anz. 24, 114. Be it noted that these nouns occur with the *ē* and *ō* vocalism and, under conditions, in the zero grade also; and function both as action and agent nouns, as infinitivals and participials, e. g. in Latin *nēc-s* (action) and *au-spēc-s* (agent), *rēg-s* (agent); in *Fóπ-s*: Lat. *vōc-s* (action), κλόπ-*s* 'thief' (agent). It should be further noted, apropos of Skr. *pād[s]* 'foot', acc. *pād-am*: Lat. *pē[d]-s*, acc. *pēdem*, that the long and short vowels might vary in the same paradigm. In Lat. *dūx* 'leader' we have the weakest vocalism, while in *Dīēs* (<sup>ˆ</sup>*pīter*): Skr. *dyāūs* we have a vriddhied diphthong. Any of these grades might have entered into the injunctive flexion, but the *ō* grades are found only in other complexes (56, 59).

11. No justified objection to the complex *rēx*<sup>ˆ</sup>*ero* can arise in the singular forms, unless the objector is prepared to object to Horatian sive *reges* | sive inopes *erimus* coloni. Against *rex*<sup>ˆ</sup>*erimus* an objection would lie and, in spite of Skr. *dātā* 'smas (5), it may be asked why not *\*rēges*<sup>ˆ</sup>*erimus* or, with haplologic re-

<sup>1</sup> By using the tie or bind in these forms I seek to indicate that though tending to a restricted order the complexes long remained separable (57). Used as in *in accipiendo* (§ 4) the tie indicates the locative of the original Avestan.

<sup>2</sup> I explain *gnarures*, with an abnormal *-ā-*, as a pf. ptc., dissimilated from *\*gnānuses*: Skr. *vij[n]ānūas* (g. sg.) 'gnaruris'; see on Umbr. *covortuso*, 74, 92.



duction, \**regerimus*. One may wonder if this state of things has survived in *legerimus*: *intelleixerimus*, the *lex*<sup>h</sup> forms representing the predominance of the singular type, the *leg*<sup>h</sup> forms of the plural, under the influence, of course, of pf. *legit*.

12. The shortening assumed for \**reges*<sup>h</sup>[*es*]omos fulfilled itself in Latin for some singulars, e. g. in the short future (perfects) *capsit*, *rapsit*, *clepsit* (old formula in Livy, 22, 10, 5), from \**caps*<sup>h</sup>*e*[*se*]*t*, etc. Particularly note that the -*s*<sup>h</sup>*ero* futures occur chiefly in verbs entitled to rootnouns with a nominative in -*s*. In liquid verbs, forms like *verrerit*, *vellerit*, *volserit* (see Neue Formenlehre 3, pp. 411, 419) may contain, however, a nominative -*s* under the conditions pointed out below (17) for the Greek aorists. The pf. *lucs*<sup>h</sup>-[*es*]*it* will have been the haplological form of *lucs*<sup>h</sup>*erit* (9).

13. The conditions assumed for futures like *capsit*, *facsit*, *clepsit* are exactly fulfilled in Sanskrit in the *sa* aorist, where the curious limitation obtains that *sa* is only attached to roots where the resultant group yields *kṣ*, as in *dukṣas*<sup>1</sup> 'mulgeas', from *dukṣ*<sup>h</sup>*a*[*s*]*s*, wherein the prius *dukṣ*<sup>h</sup> is earlier than the Sanskrit reduction of all double consonant finals.

14. In Greek there were two treatments of the combination DĒIKS<sup>h</sup>ESO: 1st with haplology, *δειξ*-ω; 2d without it, the *δειξ*-έω type. Note the different gradation of the noun prius in *δειξ*ω as compared with Skr. *dikṣás*. In Latin *dūxero*, if the quantity is certain, while we may have a vriddhied nominative older than *dūx*, we may rather have to recognize the influence of the present *douco*.

15. Why, in all these forms, did the singular *rēx* oust the plural *rēges*? In the light of the Sanskrit periphrastic future (5) the fact is clear enough; but later on, when we come to the present system, we shall see the occasional survival of the plural ending and its intrusion—as perhaps in *legero*: *intellexero* (11)—into the singular.

16. There was one class of rootnouns, involving the commonest stems, wherein IE. n. sg. and pl. were alike, viz.: in the compounds of roots in long vowels, cf. Homeric *καταβής*<sup>h</sup>[*εσ*]*εται*,<sup>2</sup> *μεταστής*<sup>h</sup>[*εσ*]ω, *ἀναστής*<sup>h</sup>[*εσ*]ουσι, *καταθήσω*, *ἐπιθήσομεν*, *παραθήσομεν*. Typically, of course, these plurals in -ης are pre-Greek, and the intervocalic σ has always been explained by the analogy of the κλέψω type, but the explan-

<sup>1</sup> A connection with Latin *ducere ubera* is scarce to be doubted.

<sup>2</sup> By writing interior ζ in a Greek form I indicate the phonetic phenomenon symbolized in § 1 by -ss. Note alongside of welded complexes like *καταβής*<sup>h</sup>*εται* an instance like *tvadīn hí ratmadhā dsī* (RV. 1, 15, 3), wherein °*dhās*<sup>h</sup>*asi* remained separable.

ation from *-s* may rather be the correct one. All that this means is that *θήσ-ω* was the syllabification employed. For a noun prius of this type note the relatively perfect equation between Skr. *dās<sup>h</sup>athah* (RV. 8, 10, 1) and *δῶς<sup>h</sup>ερον*. In the Sanskrit form, as I remark in advance, *th* is either haploglogical for *sth* (80, 82) or has arisen according to § 77 (cf. 75, 80-81).

17. In the liquid verbs Greek has clearly preserved traces of the complexes with  $\bar{\text{ESO}}$ . In Homeric *μενέω* 'manebo', if *μεν<sup>h</sup>* is not a neuter (69)—or a suffixless locative infinitive (38)—it may have been brought over from the plural *μεν[εσ]<sup>h</sup>έ(σ)ουσι* (but see 15). Even the weakest grade (10) appears in the prius in *κατα-κταν-έουσι* (Z 409) and *κατα-κταν-έεσθε* (Σ 481), wherein *-κταν-* is in the vowel stage of *dikṣ<sup>h</sup>* in Skr. *dikṣās* (14). The fact that the complexes long remained separable (57) is reflected in the unaugmented aorist *ἄγειρα ἄγειρεν*, wherein *ἄγειρ<sup>h</sup>* is from a secondary (or original?) nominative \**αγερεσ* like *χείρ* 'hand' from \**χερεσ*. Thus we account for the difference between the futures like *ἀγγελέ[εσ]<sup>h</sup>έ(σ)ουσι* and the aorists like *ἤγγειλε* from *ἀγγελεσ<sup>h</sup>[εσ]*.

18. Nor was the rootnoun the only prius employed. In *ψευδήσω* (: *ψεύδω*) we have the agent noun *ψευδής* + *[εσ]ω*, and *μελήσουσιν* (*δέμοι ἴπποι*) will contain the prius \**μελής* 'cura' (v. Cic. Att. 10, 7, 4 *navalis apparatus ei semper antiquissima cura fuit*). For \**μελής* cf. Lat. *labos honos* (with a different vocalism) and the Sanskrit masculines *bhīyās-* 'timor', *jarās-* 'senectus' (nomm. non lectis). The aorist type *ἐψεύδης<sup>h</sup>[ησ]α*—cf. also *εμαρτύρ<sup>h</sup>ησα* from *μάρτυρ*, a most clear agent noun (88-89)—may contain a posterius  $\bar{\text{ESA}}$ : Skr. pf. *āsa*, employed solely to form periphrastic perfects. [On *ζήτησ-ω ἐζήτησα* see § 59.]

19. These perfects have an apparent accusative in *-ām* as a prius, followed by *cakāra* 'feci', *āsa* 'fui', *babhūva* 'fui'. Morphologically this form in *-ām* is a samdhi form for *-ān*, nom. sg. of a participle (*-ων*). The prevalence of the samdhi form proper only before the infrequent form *babhūva* would have been due to mistaking the *-ñ* form before *cakāra* for an accusative. The original participle with *cakāra* is justified by a Greek case like *εὖ γ' ἐποίησας ἀναμνήσας με* = bene me monuisti (Plato), cf. *οἶον . . . ποίεις ἡγούμενος* (Ch. 166 C.) = what, do you think? Note the Skr. gen. pll. in *ān* (not *ām*) mentioned by Macdonnell Vedic Syntax p. 262 a, and cf. KZ. 20. 219.

20. If we had in Sanskrit the injunctive corresponding to *rexero* it would fall into the *s* aorist, 1st sg. *rākṣam*, i. e. *rākṣ<sup>h</sup>[as]am*, and in Rig Veda its 2d and 3d sg. would have been \**rākṣ*, i. e. *rāt*,

with entire ellipsis of  $\sim$  *asas*  $\sim$  *asat*. Now it happens that we actually do find *rāt* in injunctive function in RV. 6, 12, 1, where Ludwig's proposal to render it by "soll herrschen" (RV. IV, 354) met the approval of Böhtlingk in PW.<sup>2</sup>, s. v. *rāj*: "wohl verbum fin. und der accent zu tilgen". Macdonnell l. c. § 452 cites *rāt* as a "present injunctive". Other forms of the same type are *yāt* 'sacres, celebres', *a-vāt* 'vexisti', *vāt* (YV.) 'vexit'.

21. Perhaps the commonest form of this type in RV. is *adyāut* (2d sg. 1°; 3d sg. 14°; cf. *dyāut* 3d sg. 1°). This verb form belongs with the noun *dyāús* 'dies', and it may be that after a fashion common in Sanskrit of adjusting -s and -t to the 2d and 3d persons -t is for -s. Besides, as a 2d and 3d sg., *dyāús* would have tended towards \**dyāút* (cf. Whitney 226 d). It was perhaps from this single form *dyāut* that -t firmly attached itself to the root *DYU*, otherwise attested only in the noun *dyāús* and its case forms. The diphthong type of the 1st sg. \**dyāuṣam* is found in  $\theta\epsilon\upsilon\varsigma$  [εσ]ομαι 'curram'.

22. The omission of the copula with the form *rāt* is precisely what habitually took place in the future *dātā*, and I do not feel that *rāt* need go accentless any more than 3d sg. *dātā* (see § 5, and on the Vedic forerunners of the *dātā* flexion cf. Whitney 946).

*The Sanskrit sigmatic aorists; the pluperfect.*

23. In the Sanskrit development of the paradigm of the *s* aorist the noun prius in the singular seems to have pervaded the dual and plural, and some of these injunctive forms look clearly to have imperative forms of *as* 'esse' in the complex, e. g., to use Whitney's paradigm, 2d and 3d dual *a-nāiṣ-(s)tām*, 2d plural *a-nāiṣ-(s)ta*.

24. But what are the 2d and 3d sg. endings -*is* -*it* found in the other Vedas for these *s* aorists? Though another origin is possible (59, 62) I suggest that they are identical with our Latin friends *sis sit* (33). Thus in AV. 10, 9, 7, *māibhyo* (= *mā ebhyo*) *bhāiṣiḥ* (= *ne ab\_eis metuens\_sis*), we have a negative turn exactly like the turn in *numquam istuc dixis neque animum induxis tuom* (Plautus Cp. 149). So, in spite of the absence of the -(s)*is* forms from the Rig Veda, IE. forerunners seem certain.

25. The Sanskrit *iṣ* aorists are of slightly different formation, though their 2d and 3d persons in -*is* -*it* may really belong to the type of *bhāiṣis*, having spread from roots in -s, as e. g. *moṣ*^(s)*is* 'rapsis', *rakṣ*^(s)*is* 'defendas', *hims*^(s)*is* *hims*^(s)*it* 'noceas

noceat',  $dās^{(s)}i\tilde{t}$  'vastet'. In *vadhi-ṣṭa* 'caedatis' -ṣṭa is the imperative = 'este' (23), preceded by a locative infinitive in -i (37). Another possibility to mention, especially in view of the vocalic difference between Skr. *a-vedīṣam* and ḡδεα, is that an agent noun in -is—cf. the transitive noun in -ris in *μάνρις ἦσθα τάδε* (Eur.)—say  $wēidis$  'sciens', combined with  $[ē\tilde{s}]E$  yielded a Skr. 1st sg. *a-vedīṣ[as]am*, but a Greek ḡδ[is]^{ε(σ)}a. The intransitive nouns in -is, often reduplicated, were rather common in the Vedas (Whitney 270 f.). Lat. *dedissēs* (ss from -s<sup>s</sup>, §1) contains  $DEDIS^{(s)}$  = Skr. *dadis* (transitive, see Whitney 271 f.) + -ēs as in *amarēs* (61), while *dederat* comes from *ded[is]^{(s)}esāt*.

*The eSKO/ISKO complexes.*

26. This explanation of *avedīṣam* leads me to insert, somewhat out of its due order, the explanation of the Greek verbs in -ίσκω. Thus *εὔρισκω* is from  $*εὔρις^{(s)}[εσ]κω$ ;  $δόςκων = dos^{(s)}$  (82) +  $[εσ]κων$ ; in *ἔ-βασκε* 'went', *φάσκε* 'said' the priora were  $bas^{(s)}$  and  $φas^{(s)}$ , these shortened forms being comparable with  $dos^{(s)}$  (: *διδωμι*). So Skr. *gācchati* 'goes' will be from  $G^wA^s[ES]KĒTI$ ;<sup>1</sup> cf. also Lat. *pās[es]cor*. On the relation of  $eSKO : EIMI$  see § 52.

27. We should perhaps also admit into our calculations -ISKĒ-, from the root EI, in which case we shall have an explanation of Lat. *pro-ficiscor*, from the infinitive *pro-ficī* (like *interfici*) + *iscor*; cf. *pacī(i)scor* 'ad pacendum eo'. So in Aeolic *θναί-σκω* we have a dative prius  $θνῆ^{(s)}$  (from *g hnā*- 'nex' : Skr. *han* 'necare' : : Skr. *vrā*- 'troop' : *var* 'surround', cf. Macdonnell l. c. 367; or like Av. *vōi*, see § 4) + (I)SKĒ. The future *θανούμαι* is like *κτανέομαι* (17). Of course *εὔρισκω* (26) admits of the division *εὔρ-ίσκω*, but note its future *εὔρησ-ω* (cf. 18 and 25). I do not overlook that this analysis of the  $ISKO$  and  $eSKO$  forms assumes a greater antiquity for these simplices than for the  $SKO$ -verbs in general (52). In leaving the group it is well to note that the type of Lat. *crudescit* comes from *crud[os]^{(s)}escit*, while *vesperascit* is contracted (?procopie) from *vespera^{(s)}escit*. Note *luc[os]^{(s)}escit*, prius = *λευκός* 'clarus'.

*Sanskrit desideratives.*

28. With the injunctives belong the Sanskrit desideratives, based on reduplicated agent nouns, e. g. 3d sg. *cikīṣ[as]at* 'semonstrans<sub>er</sub>at', *pīpās[as]ati* 'bibens<sub>est</sub>', whence 'bibere vult'.

<sup>1</sup> On Skr. *a<sup>s</sup>*, not *ṛ*(Skr. *i*), in the form *gācchati* note *bhananti* (RV.) (= *fantur*) : *fātūr* : : Lat. *danunt* : *ἐ-δω-κα* (70-71).

*Genitive regimen due to composition with substantive.*

29. The syntactical consequences of the above explanation remain yet to be drawn. In RV. 6, 12, 1, *rāt* 'rex esto' (20) governs a genitive *barhisah̄* 'sacrae herbae' (quasi 'pulvini'). This means that *rāt* still had its noun regimen, cf. cases like Skr. *jētā dhānāni* 'vincens bona' in contrast with *jētā jānānām*<sup>1</sup> 'victor gentium'. Thus we learn to interpret the genitive with fut. βασιλεύς [εσ]ω as due to the noun prius, while a dative was the case of possession with the copula in the posterius.

*The non-thematic optative was a subjunctive.*

30. It seems never to have occurred to anybody to ponder the origin of the optative type of Skr. *syāt* : Lat. *siet*. There is a condition of growth in animals when we call them hidebound, cf. ἐχέδερμία. Similarly trees are sometimes barkbound. We scientific mortals are very apt so to be bound by our classifications as not to be able to peer through the meshes of our own schematisms. I suffer thus constantly myself. The term optative (εὐκτική) has bound us thus and we have long lain under the spell of that nomenclature.

31. What is *syāt* : *siet*? Waiving questions of chronology not yet within our scrutiny, IE. *s(i)yēt* is a long vowel subjunctive of the root ES in its weakest stage of s (perhaps in the last resort a procope product; cf. Lat. 's' *st*) as inflected after the (I)YE present system. This mode of flexion ranged widely (v. exx. in Brugmann Gr.<sup>1</sup> 2, 2, §§ 705-727) and to deny it to the root ES were wholly unwarranted, unless it could be shown that the (I)YE conjugation and the long-vowel subjunctive arose in IE. flexion after the so-called non-thematic optative had crystallized.

32. This subjunctive in (I)YĒ had undoubtedly been segregated and allocated to special use proethnically; and secondary endings, starting with the 2d and 3d sg. where the subjunctive had -SI/-S -TI/-T, had been given to the entire optative paradigm, which demonstrably ran as follows :

Sg. I (E)S(I)YĒ-M	2 (E)S(I)YĒ-S	3 (E)S(I)YĒ-T
Pl. I (E)S(I)YĒ-MOS	2 (E)S(I)YĒ-TE	3 (E)S(I)YĒNT <sup>2</sup>

<sup>1</sup> Note that here the accent of the first *jētā* (transitive noun), which I take to be of diacritic purport, adheres also to *jētā* with genitive.

<sup>2</sup> By writing (E)S(I)YĒM, etc., I mean to indicate that the initial E of *elev*, e. g., is just as likely to be of IE. provenance as to be due to an ethnic analogy. I hold that Hom. *elev* is the normal Greek descendant of (E)S(I)YĒNT, and so is Lat. *sient*, Osc. *o-siin[ns]* (see Buck Elem. Buch § 195). Surely Lat. *estis* Lith. *ėste*

33. In this paradigm neither the Greek nor the Sanskrit forms give any warrant for the reduction of optatival  $\bar{y}\bar{e}$  to  $\bar{i}$ , and there was, under normal conditions for the subjunctive active, no accentual shift to produce reduced vocalism. There was such a shift in the middle, and we have Skr. 1st sg. act. *açyām* (for phonetically rigorous \**çyām*) 'adipiscar': 1st pl. mid. *açi-māhi* 'adipiscamur' (but see 34). How these conditions could have affected the paradigm of  $\bar{e}siy\bar{e}m$ , even though  $\bar{e}so\mu\alpha\iota$  is a middle future, I do not see; yet Lat. *simus sitis*, Umbr. *sir si sei*, OHG. *sis* seem to certify the reduced forms. For the active optative of  $\bar{e}S$ , however, I am prone to believe that  $\bar{i}$  came in from compound forms or enclitic uses of  $-\bar{sy}\bar{e}S$   $-\bar{sy}\bar{e}T$  (see Kretschmer as cited below, 59).

*Present suffix (i)yē : ei 'ire'.*

34. After the exposition further along (44 sq.) of the rôle of the root  $\bar{e}i$  'ire' in forming verb complexes it will become clear that the present formant  $\bar{i}y\bar{e}$  is a present stem of  $\bar{e}i$ . Thus in Skr. *açimāhi*, e. g., we have an infinitive \**açī* (37) + *imahi* (RV.) = imus; in *duhātā* 'mulgeat' a complex *duhi* = ad\_mulgendum +  $\bar{i}to$  'eat'. For *aç(i)yāt* 'capiat' the possibility must also be weighed that the prius was *aç*, an agent noun nominative prior to the adoption of  $-\bar{s}$  in that case (cf. 104-105); or that, taking \**açī* for the prius, the posterius was  $-\bar{y}\bar{a}t$ : Skr. *yā* 'ire'.

*Moods of emotional origin: mood syntax.*

35. It can be no accident, however the resolutely but mistakenly pragmatical have cried pooh-pooh, that the emotional verb forms, the subjunctive and optative, of our mother-speech are characterized by long vocalism which admits of the tremolo, and by diphthongs, at least concomitant with—as in Sicily (see Schneegans, ap. Meyer-Lübke Ital. Gram. 35; Wechssler Gibt's Lautges. 131) they have been shown to be the result of—passionate utterance. Language, we keep forgetting, is speech; and mood—I mean temper—distinctions obtain to-day universally; and in English we still, for we

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Greek  $\bar{e}or\bar{e}$  have a proethnic  $\bar{e}$ -, in spite of the greater regularization of the Indo-Iranian paradigms in regard of the distribution of the strong and weak root forms. Likewise Lat. *sumus* comes to its rights when we combine it with *erimus*, both from a startform ( $\bar{e}$ ) $\bar{s}o\mu\bar{o}s$ ; and the total loss of the initial  $\bar{e}$ - would be due to the generalization of cases of procope to which this enclitic verb was liable, as e. g. in Lat. *tectumst tectust tectū's* (cf. Eng. *that's*). Thus Lat. *sunt* and *erunt*, Skr. *sānti* are all to be derived from ( $\bar{e}$ ) $\bar{s}o\bar{n}t\bar{i}$ , with  $\bar{o}$  by deflection in the syllable after the accent. On the 3d pl. ( $\bar{s}$ ) $\bar{e}nt\bar{i}$  see § 51. In the Gothic 2d pl. *siyaisp* we have a contamination of non-thematic  $\bar{e}iy\bar{e}t\bar{e}$  by the thematic  $\bar{e}so\bar{r}t\bar{e}$  (cf.  $\bar{e}oi$  'siet').

are still an Indo-European folk, indicate them by tone of voice. On the printed page only the context, the little emotional words accompanying (see Morris Principles and Methods in Syntax 45 sq.), reveals the feeling, and the "mood" does not reside primarily in the objective form of the word.

36. For genuinely historical syntax no very momentous consequences flow from the demonstration that the "optative" is merely a "subjunctive" allocated to special function. It merely shifts to the proethnic period the actual problem of Latin *set*, viz.: that it is a "subjunctive" as well as an "optative"—and originally neither, but a complex with prior infinitive, in which (I)YĒT meant "goes", the whole used as a present future desiderative (see 63-65). Professor Bloomfield has lately shown (7) how little modal distinctions meant in hieratic Sanskrit, and I have elsewhere noted (Cl. Quart. 5, 190) that by reverting, after the manner of speaking, to the IE. period we sometimes do not bring ourselves sensibly nearer to syntactical origins than when we ponder on the phenomena, say, of Latin syntax. I have never believed that tenable distinctions can be drawn between future subjunctive optative imperative. The Sanskrit injunctives unite all these functions and exhibit aorist, i. e. narrative, functions besides, thus retaining and reflecting conditions prior to the allocation of special mood values to special objective forms. Our English imperative *come* is an optative when we sing "Come thou almighty king"; it is a something milder, a reverential, a precative, in "Come, Holy Spirit, heavenly dove"; it is still something short of an imperative in "Come, ye disconsolate", or even in "Come to dinner"; but in "Come at once, I tell you", it is imperious. Note conversely 2d sg. opt. *immais* = impv. cape in Old Prussian.

*The Sanskrit future in -(i)ṣyāti.*

37. In Skr. *naṣi-ṣyāti* 'peribit' (= ad\_necem est) *hani-ṣyāti* 'necabit' (= ad\_caedem est; note the different voice that arises from taking the infinitival prius as active or passive) I interpret *-ṣyāti* as pres. indicative from *ṣyāt*, original pres. "subjunctive". The prius *naṣi*, here infinitivally employed, is absolutely identical with the Latin locative *nec-e*, and the complex = 'im\_sterben ist'. The Vedic infinitives in *-i*, though not very numerously recorded, are perfectly certain (cf. Macdonnell l. c. § 578). There is little, and I rather think no, formal justification (pace Brugmann op. cit. § 749) for interpreting the *i* of *naṣisyāti* as from *ṣ*. Still an agent noun prius might be admitted, or an ES infinitive—suffixless locative (50).

Thus  $\theta\epsilon\nu\text{-}\acute{\epsilon}\epsilon\iota$  'feriet', the thematic diphthong (55) apart, may be from G<sup>w</sup>HENES-(S)YĒTI or from G<sup>w</sup>HENE[SI]-SYĒTI, cf. Skr. *aviṣyāti* where, as in *avediṣam* (25), the haplogy affected a different one of the like syllables.

38. But we come out most simply with  $\theta\epsilon\nu\text{-}\acute{\epsilon}\epsilon\iota$  when we set down  $\theta\epsilon\nu$  as a suffixless locative (for the interpretation of which see § 50) +  $\text{-}(\text{o})\acute{\epsilon}\iota$ , which is the Greek correspondent of Lat. *erit*. By good fortune the Rig Veda has preserved evidence of this formation in *imesi*, in the words (I, 120, 7):

yuvám hy *āstam* (dual) mahó *rán*<sup>1</sup>  
vos enim *eratis* magnum *donare*

"ihr *wart* bestimmt grosses *zu spenden*" (Ludwig, followed by Griffith).

Here *rán* is an infinitive from the root *rā* 'dare', and we have in the context (I, 120, 6c) a precise counterpart in *dán* from the synonym root *dā*, viz.: in the words

*ā'kṣī* ṣubhas patī *dán*<sup>2</sup>  
huc oculos, splendoris compotes (dual), *date*

dasz ihr, herren des glanzes, hierher die augen *richtet* (Ludwig).

<sup>1</sup> The Vedic commentator Sāyana did not know what part of speech *rán* was, but he knew its meaning perfectly; see PW.<sup>2</sup> s. v. *rán*.

<sup>2</sup> The Sanskrit root *dan* set up in the Petersburg lexica (PW.<sup>1</sup> III, 507) on the basis of two Rig Veda passages does not exist. The passages are:

I, 174, 2a, *dāno vīṣa indra mrdhrdvūcaḥ*,

where Ludwig renders *dānas* by *tötetest*, Grassmann by *straftest*, Griffith by *humbledest*. The pada ought to be rendered by

*dediti* <in fugam> vicos (= hostes), Indra, maledicentes;

cf. Bell. Gall. 5, 51 Caesar . . celeriter hostes in fugam *dat*, Phaedrus I, 22, 9 improbam <mustelam> leto *dedit*. There is a kindred use of *δίδωμι* (Liddell and Scott s. v. II), of the giving over of an enemy to dogs (*κύνων*), fire (*πυρ*), blows (*πληγαῖς*). The ellipsis of something to correspond to 'in fugam' in the Rig Veda will be implicated with the rare NO flexion (cf. Lat. *danunt*, 70). [Cf. Eng. give *it* to one = beat.] In the other passage we have *dān* already correctly taken by Ludwig, whose rendering is "zu spenden":

10, 61, 20c: *ūrdhvā yac chrēnir ná ṣṭṣur dān* <? *makṣū*>

recto quod collegio similis puer <rectus est> in\_dando (= recte dat) <? celeriter>

d: *makṣū sthirdhīn ṣevr̥dhīn sūta mātā*

celeriter firmum bona\_augentem peperit mater.

Apropos of my rendering of *chrēnis* by 'collegium', it is at least more intelligible than the usual 'linea'. I really prefer to follow one of the best native glossaries, the *Trikāṇḍaṣeṣa*, and render by *seva-pātra-m* quasi 'bucket', but perhaps originally 'well-sweep' (: the root of Lat. *clino*), from its inclination. Then *ūrdhvā chrēnis* would be the upraised and dripping bucket, fit symbol for the generosity of Agni. For purposes of completeness I add that of the four



Here the imperatival infinitive *dān* (cf.  $\delta\iota\text{-}\delta\acute{o}\nu\text{-}\alpha\iota$ ) = Av. *dān* in Y. 47, 1, where Geldner renders *ahmāi dān* by *verleihe uns* (see Wolff *Infin. d. Ind. und Iran.* I, 93); and *dām* in Y. 44, 16, where Geldner (KZ. 28, 206) renders by 'zu geben', Bartholomae by 'zu bestimmen' (Wolff, 91). Against the interpretation by '*domūs*'<sup>2</sup> (with the awkward pair of genitives), it should be observed that *akṣī dān* seems very similar to *ḡrad-dhē* (infin.) = *credere* (i. e. cor dare). Cf. also Eng. 'to give ear'. Lat. *audi* (impv.) is from *aus-d(h)aʳi*<sup>1</sup> (infin.), *audībit* from *audi*ˆ*ibit* or *audi*ˆ*fit*, *audivi* from *audi*ˆ*ivi* (cf. 66).

39. To take up the other Sanskrit futures, in *vartsyāti* 'vertet' we probably have a reduction of WERT-I-, a locative prius before -SYĒTI—unless one chooses to believe that the IE. reduction of a diphthong or absorption of a short vowel before the accent (see § 1, 3) had ceased to exist before these complexes came into existence; or to insist that the difference between the *naḡisyāti* and *vartsyāti* types cannot be the result of recomposition. In the *dāsyāti* 'dabit' type the prius was either *dā(i)*ˆ (cf. Av. *vōi*, § 4), or *dāsi*ˆ, identical in formation with Lat. *fā-re* (impv. from infin.) and closely related to *dāre*. Be it noted in passing that Lat. *fāre* attests, out of Sanskrit, the Vedic imperatives in -*si*, e. g. *rāsi* 'da', *yā-si* 'i' (cf. Whitney § 620). In narrative, *fāre* arose by ellipsis from *bhāsi*ˆ*asi* (6), cf. Lat. *sequere*.

*The Latin -BO futures; the conative imperfect.*

40. There is no reason to suppose that the NEKI-SYĒTI futures were not liable to tmesis in IE. times; nor that they are any more original than the Latin *bo-* futures. They survived a little more widely, that is all. Were the *-bo* complexes left on the western frontiers (Gaul, Italy) as the race moved east, or did they represent a westward wave of extension? The condition of rivalry between *kar as bhū* in forming the Sanskrit periphrastic perfect (19) may have obtained as well proethnically between ES and BHŪ in forming

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cases of *patrī dān* given in PW.<sup>1</sup> III 507 s. v. 1 *dān* Griffith (after Ludwig) seems to do full justice to 1, 149, 1a and 10, 105, 2d by a rendering equivalent to 'dare' (dandi); and for 1, 153, 4c his rendering = Lat. det. In 10, 99, 6a his rendering of *dān* = *superavit*. This means that there *dān*, with ellipsis of something like *āsi*d, means gave it to, cf. on *dānas* in 1, 174, 2a.

<sup>1</sup> This is not contradicted by *ob-oedio*, wherein, in the passage of post-accentual *au* to *ū* (or plebeian *o*), the influence of the preceding labial *b* and of the succeeding dento-palatal articulation of *dī* (cf. *ac-ci-pi-o : oc-cu-pa-re*) resulted in a palatalized *ō*, cf. *Cloetemestra* (Stolz *Lat. Gram.*<sup>4</sup> 79) with *oe* from *ū* under very like conditions. See also Marouzeau in *Mém. Soc. d. Ling.* 17, 272.

periphrastic futures. But all questions of this sort aside, I find in Latin *ad-stabo*—which will serve as a type for the 1st conjugation—a prius \**ad-sthāi* like Skr. *vi-khyāi pra-khyāi* (omitted in Macdonnell's list, § 584) = 'ad\_dis-(pro-)spiciendum'; and in *acciōbo*—typical for the 2d conjugation—(with *ē*, from EI or AI, *in hiatus*) a prius like Skr. *pra-mīye* 'ad\_diminuendum' (cf. however the Avestan infinitives in long diphthong, 4). OLat. *scribit* (4th conj.), if we reckon with vowel levelling and the pre-Latin initial stress, may be phonetically just as normal as *acciēbit*. But a startform *scrivi* (locative like Skr. *dr̥ḡ-ī budh-ī*) is also permissible. The *i* in *audibit*, another 4th conjugation form, has been explained above (38). Forms like *scibo*, *ibo*, *audibo*, as exceptions to prevailing modes—and it is always the exceptional form that is likely to prove original—are old, and Skutsch's derivation of the *-bo* future from *amans-bo*, etc. fails precisely, save by invoking an improbable analogy, to account for these *-ibo* forms. For the sense, in view of our own periphrasis "I was<sup>1</sup> loving", no English speaker would be reluctant to follow Skutsch, but in my opinion, "I was for loving" better accounts for the more "modal" uses of *amabam*. I have in mind such cases as Terence Phormio 298 *qua ratione inopem potius ducebat domum*, wherein Professor Bennett (*Syntax of Early Latin* p. 35, 6) renders the verb by "was proposing to bring", which is merely "was for bringing" writ large.

41. Here I do not fail to anticipate the objection that the same mode of translation is valid for the uncompounded Greek imperfect. Thus Professor Gildersleeve (*Syntax Class. Greek I*, § 213) renders *ἦγες* in Plato, *Phaedo* 230 A by "you were going to take". This raises the question why Latin came to give up—did it ever develop?—the thematic imperfect in favor of the periphrasis with *-bat*; and one part of the answer will be that the periphrasis with *-bat* had the value of making quite precise that aspect of the original imperfect represented confusedly in *ἦγες* [but not in *ἄγεις*, see § 63], but quite clearly in *ducebat*, so long as its parts, felt as "was for leading", were still several in the domain of consciousness.

42. It has been pointed out often before that a complex like *amabat* exists in Old Bulgarian, wherein *vidě-achŭ* = *videbam* and *nesě-achŭ* = *ferebam*. The startform for *-achŭ* was *jachŭ* from IE. *ĒSOM* (cf. on *ἐψεύδοις* [ἦσ]ε 18). The prius *vidě-* is like *vidē* 'to

<sup>1</sup> With *was* cf. Skr. *mṛgayām* (*-m* for *-n*, 19) *avāst* = 'venans erat'. An IE. complex with the root *WES* 'habitare' (manere) gave rise, I now suspect, to the pf. ptc. type mentioned in §§ 72, 98. On the ptc. "suffix" *-MENO-* = 'manens' see *AJPh.* 31, 410<sup>1</sup>.

find' (RV.) and contained a final -AI (-OI), but not -EI, unless -(j)achu had some effect not known to me on the preceding diphthong. But the infinitive in -EI (cf. Persson IF. 26, 25) seems amply to come to light in other forms we shall have to consider.

43. In 3d conjugation types like *tegēbam* the *ē* may, in a not yet welded final syllable before a labial -*b* (-*f*), actually be the normal phonetic product of -AI or -EI, I think. For *tegē* from \**tegai* cf. dative endings like *Diane Fortune* (v. exx. in Buecheler-Windekilde Lat. Dekl. § 265), and note *ē* from *ai* in the 2d syllable of Cloetemesra (38). Also note the old *ē* datives of, say, *Apollo* (v. Thes. Ling. Lat. II. 244, 25 sq.). As an iambic word \**tegai* would have been liable, perhaps, to quite early assimilation to \**tegei* and I even suspect that, thanks to the "iambic" law, words of the type of *humi* = *χαμ-ai* had their -AI reduced to -*i* previous to any historic attest of Latin forms. But in \**tegai*, and in a very large number of infinitives belonging to the 3d conjugation, there may have been a sort of vowel levelling that produced \**tegē(i)*, comparable with the harmony that saved the second vowel in the genitives *tegetis*, *segetis*, etc. In the isolated infinitive it was the type of *agei/agi* that prevailed. Be it added, apropos of *tegēbat*, that the derivation from \**tegēs*bat (see 18 on *ἐψεύδομαι*) is also admissible.

#### Complexes with EIMI and ESMI.

44. I am now going to try to show that in the IE. flexion the *φέρεις* and Skr. *bhārasi* types are compounds in which -*eis* = Lat. *is* 'goest' and -*asi* = Lat. *es* 'art'. But it is not necessary to affirm that -*EIS* meant 'goest' in any full sense, for it may have had a nearly copulative value like *πέλεις* (: Skr. *cāraśi* 'erras'); and Bartholomae (Wbch. 147, 2) expressly defines *aēiti* by 'versatur'; cf. Horatian *gratior it dies* (C. 4, 5, 7). Perhaps Homeric *eis* (pace L. Meyer KZ. 9, 373) was copulative 'is', not 'es'. In building up the complexes from which the conjugation forms derive I shall hold myself strictly to the forms of record for the conjugation of ESMI and EIMI. This will not prevent me from admitting as proethnic, rather than ethnic, types and analogies, forms that violate the (subsequent) distribution through the paradigm of the strong and weak root stages. Thus, as above (32 fn.) I treated the strong form in 2d plural *ἔσσε*: Lat. *estis* Lith. *ėste* as belonging to the mother-speech, so I shall now suppose, on the basis of Skr. *etas* (AV.) 'duo eunt', Lith. *e<sup>2</sup>te* 'itis', Skr. *imahi*, Lat. *imus* (? or *eimus*), that EIMOS *Ī*MOS, as well as *Ī*MÓS, are equally valid proethnic forms.

*Conjugated demonstratives.*

45. The question will arise how, if EIMI and ESMI furnished the standard conjugation forms of the other verbs, they were themselves previously conjugated. This question I might prudently avoid, though it would be necessary in that case to plead that conjugation probably started in a few words and was afterwards extended. My own solution of the difficulty involved in the conjugation of EIMI and ESMI lies in the belief that they were conjugated demonstratives to start with. Into this discussion the reader who declines to look at questions of general linguistics may refuse to go, but I propose to make my statements touching the conjugation of the demonstratives entirely pragmatic, albeit for ESMI and EIMI glottogonic.

46. In the Latin of Plautus the compound demonstrative *hic* is 1st person, *iste* 2d, *ille* 3d. In Greek,  $\delta\delta\epsilon = \textit{hic}$ ,  $\delta\delta\tau\omicron\varsigma$  approximates *iste*,  $\epsilon\kappa\epsilon\iota\upsilon\omicron\varsigma = \textit{ille}$ . Note Skr. *eṣā-*, a compound of *sā-*, both being used with the 1st and 2d person pronouns, and *eṣā-* inclining to *iste* as the demonstrative *iyám*<sup>1</sup> to *hic* (cf. Speyer l. c. § 131), *asāu* to *ille*. We come still nearer to my conception of ESMI in Ital. *ecco*~*mi* 'Here (there) me' (= I am), *ecco*~*lo* 'there it <is>', *ecco*~*ci* (-*ci* = Lat. -*ce*) 'ibi hi' = 'adsumus nos', *ecco*~*ne* (-*ne* from Lat. *unde*, cf. Meyer-Lübke Ital. Gram. § 370) 'adsumus nos'. The *ecco*~*lo* paradigm does not differ in essence from the 'dar he' of a Southern darkey (see Fay in AJPh. 16, 20). With these IE. analogies before us, when we observe that in Hebrew the copulative verb *hú*' (originally = 'ille, is') is an adverb of a demonstrative value with verb endings (cf. Fay l. c. 19; Steintal-Misteli's Abr. d. Sprachwiss. 2, 476), we cannot question the possibility of finding in EIMI (root EI/I as in Skr. *e-ṣā-*: Lat. *eyum* [acc.], weak stage in Lat. *is*, Skr. *iyám*, fem.) and in ESMI (cf. *es-*, nom., in the Oscan word *es-idum* 'idem') pronominal "roots" EI/I and ES. Note the Vedic use of *ayám* for "hier ist, sind" (Grassmann RV. Wbch. 207, 20).

47. What is conjugation? The indication of person in verb forms. Some languages conjugate their nouns, e. g. Hebrew (v. Bickell's Outlines §§ 103-104) and Namaqua (paradigms in Mém. Soc. Ling. 9, 308; reprinted in AJPh. 17, 353). Very completely illustrative of my conception of the conjugation of ESMI and EIMI is

<sup>1</sup> In the stately, solemn periods of the Oration on Pompeius' military command (§ 55) Cicero uses *ii* (anaphoric of Nos, four lines before) as subject of *poteramus*; cf. Plautus Mc. 631, *ego me credidi | homini docto rem mandare, is lapidi mando maxumo* (further examples in Seyffert's Bericht über Plautus, Bursian, 80, 309).

the following Chinook paradigm extracted from Boas' grammar of that tongue in the Handbook of American Indian Languages, p. 618. Also cf. what Boas says, *ib.*, p. 40, on the three persons of the demonstrative. In the paradigm to follow *x'* is what we should call a pronoun stem, comparable with the stem of Lat. *hic*, and is explained as "present visibility", *x'i* being its masculine and *x'a* its feminine. Similarly *qi* and *qa* are masc. and fem. of *q*, expressing "past invisibility".

Present Visible.					
		M.	F.	Dual	Plural
Near	1st pers.	x'ik	x'ak	x'ictik	x'itik(c) <sup>1</sup>
"	2d "	x'iau	x'au	x'icta	x'ita(c)
"	3d "	x'iḡ	x'aḡ	x'ōcta	x'ōta(c)

Past Invisible.					
"	1st "	all wanting			
"	2d "	q'iau	—	qēcta	qēta(c)
"	3d "	qix'	qaḡ	qōcta	qōta(c)

In this pronominal paradigm we find every substantial element of conjugation and even see how tense also might have arisen from pronominal flexion (cf. the augment *ε-* in IE. speech). Here note may be made of the complete conjugation of adjectives in the Athapascan tongues (*v. op. cit.* p. 159).

#### *Person endings.*

48. With these specific paradigms and the other general analogies before our minds it requires no great hardihood to interpret

1st sg. ES-MI EI-MI    2d E(S)SI EI-SI    3d ES-TI EI-TI

as demonstrative groups exhibiting personal inflexion, i. e. conjugation; and it is more likely a survival than an innovation when we find Skr. *asmi* = ego and *asi* = tu in the fable literature (53). After § 46 the development of copulative force needs no further illustration. The development of the sense of 'ire' from an interjectional EI (cf. Lat. EI!, identical in form with the impv. of *ire*) 'here' (come) or 'there' (go) may be illustrated by the use of Lat. *ultra!* in the sense of 'begone' (see my note on Plautus Mo. 601); cf. Ital. *avanti*. In ESMI ES- will be the nom. ES- found in Umbr. *es-to-* 'iste', Osc. *es-idum* 'idem' (see Brugmann Gr.<sup>2</sup>

<sup>1</sup> By adding -c the plural for human beings is made.

2, 2, 326). That -MI stands in relation to Lat. *me* and *mī*, Gr. *μοί*, and was a demonstrative of ego-deixis, seems to me past doubting. It can hardly fail to be identical with the same letters in Skr. *tās-mi-n*, which might, under circumstances, do duty for *huic* (mihi) or for *huc*. The -SI of the 2d person will belong with the article *ś*: Skr. *sá(s)* [cf. Vedic *sá/sā tvám* = thou (m., fem.) here]; and -TI with the article *ró*: Skr. *tád*.

49. I cannot think that the strong reluctance to looking on the endings -SI and -TI as pronominal arises from general objections to supposing these endings of pronominal provenance; nor is there anything intrinsically improbable in the idea I long since advanced (AJPh. 15, 414; 439) that -SO and -TO (-SI/-TI) were nearer and remoter 2d persons. The compelling objection must lie in the fact that 3d person -TI conflicts with the 2d person pronoun *ΤΥ* (cf. Dor. *τῦ* but *τῦ-υη*, Lat. *tū nē*. On the other hand it agrees with 3d person -*tu* of the Sanskrit imperative,<sup>1</sup> and it agrees with the demonstrative *τυτ̄ τυιδε* "huc" of Lesbian (*Τῦ* + the *τ* of *οὔροστί*), which contains a *ῥ* as likely to be proethnic as the *υ* of *ῥπυι*, Skr. *ku-tās* 'unde'. Why leave for a Greek analogy the establishment of a vowel harmony between relative and antecedent? The shift from 3d to 2d person, if that is the way the cross allocation came to pass, may be compared with German *Er*, and afterwards *Sie*, for *du*; cf. also the honorific *Dero*. In Latin, in the future imperative, 2d and 3d persons are not differentiated, while Skr. *bhāratāt*, 2d person, = *φέρετω*, 3d. In primitive Semitic the pronouns were still fluid in their reference, so that in the derived languages different allocations for number, gender, person obtain (see Brockelmann Vergleich. Gram. § 65). As for IE. *TY*, in view of its coincidence with the root *TY* 'to be strong', one may wonder if its final allocation to the 2d person was not honorific (cf. the Japanese honorifics) and *TY* = quasi 'your majesty'. The Japanese honorifics also "frequently discharge the duty of pronouns" (Encyc. Brit. 15. 167).

#### Pre-casuals.

50. Returning to the personal endings -MI -SI -TI, I am inclined to identify them with the Old Lithuanian accusatives *mi ti si*. Such forms belong to the period before cases, are adverbials like Lat. *-ce* Ir. *cē*, locative words, that is. As Brockelmann, l. s. c., puts it: Die pronomina entwickeln sich aus interjektionen, deutewörtern oder

<sup>1</sup> For Indo-Iranian *tū* 'quidem' with 2d and 3d person verb forms see Delbrück ai. Synt. § 256, Bartholomae Wbch. 654.

lautgebärden, die ihre spezielle beziehung erst durch den Sprachgebrauch erhalten. The locative word is the phenomenon now known in IE. grammar as the suffixless locative, but one may roundly declare that it is a phenomenon of universal range throughout human speech. Let us note in Misteli, op. cit., the suffixless locatives of Mexican (116), of Magyar and Yakut (369), of Dravidian (395), of modern Persian (605). An instructive glimpse into the nature of the phenomenon may be got in Bantu, where a suffixless locative serves to indicate all the place relations (325), the *at* and *in* relation (locative), the *to* and *toward* relation (dative, locative, accusative), the *from* relation (ablative). Misteli, after giving examples (326), states, which is to explain, the phenomenon (conclusively but briefly) in the words: es sind das ort- und zeitbestimmungen, die der vollen lokativischen gestalt entbehren können, weil sie meist nur in diesem casus erscheinen, gerade wie im Neupersischen die blossen stämme von dergleichen wörtern lokativischen Sinn einschliessen. See also ib. p. 573 where, after mention of suffixless locatives in our IE. tongues, he adds: man versteht diese anfänglich sonderbare verwendung, wenn man sich erinnert, dass zeit- und ortsbestimmungen im Chinesischen zu anfang, und gewissermassen ausserhalb, des satzes und der syntax stehen.

*Paradigm of ESMI.*

51. But to come back to the paradigm of ESMI: when in the phrase it was preceded by vowel—or even consonant—sounds, the *ε*- was liable to absorption or procope, as in Old Latin *cura's*, *bonu's* (from *bonus[es]*), *rectum'st*, or in English *it's*, etc., and it was these *ε*-less forms that were generalized in Skr. *smas*: Lat. *sumus*, but Lith. *ėsmė*: *ėjūmė*, all excep. excip. from (E)S(O)MOS. In the 2d plural *estis*: Skr. *sthi* we are to see a startform (E)STHE, or E(s)-STHE, and I hold that STHE is a demonstrative element—cf. Tsimshian *st* “indicating presence or nearness” (Boas l. s. c. 379)—found also in the root *STHĀ*<sup>1</sup> (cf. Prellwitz Wbch. s. v. *ιστημι*, and note the Latin interjection *est*). In the 3d person, Lat. *erunt*: *εόντ-* (ptc.),<sup>2</sup> *sunt*: Skr. *sānti*, but Umbr.-Osc. *sent*, warrant the startforms

<sup>1</sup> In the Greek impv. *ισθι* ‘es’ we have IE. s(TH)ISTHI, cf. Skr. *stātha* ‘sta’. The final *-i* of the Greek form may come from the DHI ending of *isti* ‘i’, *phāti* ‘fare’, but see on Av. *barādi*, § 82). On the use of *STHĀ* as a copula see Fay AJPh. 33, 380, § 9.

<sup>2</sup> The identity of 3d pl. in -ONT(i) with the pres. ptc. stem in -ONT came, I take it, by imitation of the relation between the Skr. 3d pl. pf. and the pf. ptc. See § 72.

(E)SONTI (with *o*-deflection after the accent, and before N, also in 1ST plural before M) and SENTI. The form ESONTI will contain ES as explained in § 46 (cf. Lat. *ipsorum* replacing *eorumpse*) + *ēnti*, which is made up of a demonstrative *ēn* (cf. the Greek and Latin interjection *ἤν/ēn* 'ecce') + TI, as in the 3d singular. Perhaps Doric *ἐντι*, Attic *εἰσι*, never had an *s*- to lose, and are to be directly equated with OIr. *it* 'sunt'.<sup>1</sup> Cf. also § 70, and note Homeric *ἐν* 'est, sunt' (see Fay, AJP. 16, 20).

*Paradigm of ESĀO.*

52. As for the IE. paradigm of Lat. *escis escit*, Homeric *ἔσκει* *ἔσκε*, I take it that the combination ESĀE was like EIMI, or rather that ESĀO ESĀESI ESĀETI varied with ESMI etc., the variation ES/ESĀE being like that of *huius/huiusce* in Latin. On the use of *escit* in forming inchoatives see § 27. In Skr. *prcchāti*: Lat. *poscit* we may start with a weak noun *prks* 'asking' (: Lat. *prec-es*, action noun) + [ES]ĀETI. The same sort of haplogy would obtain also in *διδασ[εσ]κω*.

*Copulative verb-forms = demonstratives in Sanskrit.*

53. Before leaving this topic it is interesting to note that Sanskrit *asmi* and *aham asmi* act the rôle of *aham, asi* and *tvam asi* the rôle of *tvam* (see PW.<sup>1</sup> I, p. 536 s. v. *as*, 6; also Speyer Skr. Syntax § 311, 3). I should also interpret *asti* at the beginning of a fable (op. cit. 311, 2) as 'here now'. In the fable literature also—that is, in a genre that might retain archaisms—is the home, perhaps, of *asmi = aham*, cf. Kath. 25, 187 (cited by PW.<sup>1</sup> l. c. fn.) *nr̥māṅsam asmi vikr̥ṇe* = homini-carnem sum (i. e. ego) vendo. Here the reality is that *vikr̥ṇe* (on the etymology see § 86) = *vendendo* is the infinitive out of which the middle grew (57). In an example like *tvāṁ asmi vacmi* (PW.<sup>1</sup> l. c.) = te (i. e. tibi) sum (for ego) dico the repetition of *-mi* is suggestive of the concords in Bantu, e. g. *ṅgu-mu-ti ṅguno ṅgu-gwa* = *this tree this here this falls* (see Encyc. Brit. 3, p. 361).

<sup>1</sup> Thurneysen air. Gram. § 176 gives for the examples of disappearance of *s*- in proclitic words only the further examples of (1) the article *ind a*, etc., after prepositions, *-sind -sa*. Here, though I have no competence in Celtic phonetics, I should like to ask if the *s*- may not belong to the preposition, cf. Lat. *ab/abs, ēv/eis*, etc. (2) *amāi* 'sicut', adverb-conjunction from *samāi* 'similitudo'. But Skr. *amūthā* 'auf jener weise, so' suggests that *amāi* may owe its loss of *s*- to some no longer discernible cognate of *amūthā* playing upon *samāi*. If this suspicion is correct, then *ind* is to be derived from ENTOS (not SENTOS): Delphian *ἐντε dum* (*ἐντᾶθα* 'then'?).



*The verb-paradigm analytic.*

54. But let us leave the discussion of the demonstrative origin of ESMI and EIMI and see how we can account for the standard IE. verb paradigms of the thematic type—also for the root flexion, in part—on the theory that these paradigms are analytic in their origin. The variety of morphological problems that meet a solution by the assumption may justify my analysis even in the eyes of those who will have it that because we meet, let us say, with the type of Skr. *hānti* 'kills', *bhārati* 'bears' as early as with *eti* 'goes' *āsti* 'is' therefore for us they must be as early.

*The thematic diphthong : EIMI.*

55. The argumentation of recent years to show that *phéreis* represents an original IE. form (see Brugmann IF. 17, 178; Meillet Mém. Soc. Ling. 14, 412) has failed to advance its strongest pleas. These lie in the diphthong of the Skr. middles *bhāre-the bhāre-te* (2d and 3d dual, and as duals archaic), subj. *bharāt(h)e*, wherein the only thing "middle" is the final *e*, which spread from the 1st and 3d singular over the paradigm (57). The strongest argument of all, however, lies in the fact that in the optative of the type *phéreis* we have the post-accentual deflection of the EI of *phéreis*.<sup>1</sup> The allocation of modal force to the OI diphthong (cf. 35) was doubtless a growth. Original modal indifference may have reigned as it survived, or developed, in Skr. *so 'ham vajarṁ sanāmi/saneyam* = hic ego bonum adipiscor/adipiscar (see Bloomfield l. c. 14). Given the original moodlessness of the optative, and we may ask ourselves whether Lat. *velis*, as the equivalent of *vis* (cf. e. g. Lindsay, Lat. Lang. 515: in Plautus *velis* and *vis* are used as the metre requires, without difference of meaning<sup>2</sup>), is not from WLEIS, like *phéreis*, and entirely identical with Gothic indic. *wileis* 'wilt', now derived from the optative, i. e. WELIS. There was little reason why the verb "will" should have developed an optative—save by way of attraction to a foregoing dependent optative (see my Mostellaria Introd. § 67, 4)—but much reason why it should have an emotional

<sup>1</sup> I am not unaware of the BHERĒI, etc., bases, to which I have in my time yielded allegiance, cf. e. g. TAPA. 37, 11. These bases are, in a manner of speaking, infinitives, and in that sense I still yield allegiance to them.

<sup>2</sup> Herein lies the secret of the Latin subjunctive of the ideal 2d person: it is a premodal form. As for Lat. *vis*, it may be from *velis*, enclitically attached to a word like *si* and reduced in the sentence squeeze to *\*silis*, with subsequent restoration of *v* from *siuolt*.

diphthong (35). In Gothic *wileis ei* may represent either  $\text{EI}$  or  $\text{I}$ . Only early inscriptions, and unfortunately no such have yet been found, could tell us whether Lat. *velis* contains original  $\bar{i}$  or  $\text{EI}$ . In the Gothic 2d and 3d singular *habais habaiþ ai* may represent  $\text{OI}$ , and Möller (ap. Streitberg Ugerm. Gram. p. 307, anm.) constructed these endings "rein willkürlich" from  $\text{OISI OITI}$ . But they may be "optatives" (pre-optatives) with indicative function, and the verbs of the class are, in fact, "in ihrem grundstock primäre verba" (so Streitberg l. s. c.). Curiously enough, the optative corresponding to *habais* is *habáis* (-áis from  $\bar{EIS}$ ), with endings identical with the Greek subjunctive  $\phi\acute{\epsilon}\rho\eta\varsigma$ , from  $\text{bherēi}^{\wedge}[\text{ei}]si$  (? or  $[\text{E}]SI$ , cf. § 69). Cf. *ai* in Skr. *bravāite* (dual) 'dicatis'. In Latin *habēs*, also not a causative,  $\bar{E}$  is likewise due to the startform *habē(i)s*.

56. How are we to account for these forms with thematic diphthongs? On Attic vases we have the imperative  $\eta\iota\epsilon\iota = \eta\iota\epsilon$ , and Doric  $\acute{\alpha}\gamma\epsilon\iota = \acute{\alpha}\gamma\epsilon$ ; and these, especially  $\eta\iota\epsilon\iota$ , look like the type of infin.-impv. found in Skr. *pra-mīye* (40). Corresponding Avestan infinitives have -*āi*, e. g. *jayāi* 'vincere', *vindāi* 'reperire', *fra-vāk-āi* (-*vāk-*: Lat. *vōc-* ?); and the two first present the "root" as found in the present stem, while *fravākāi*, apart from the length of -*vāk-*, suggests Lat. *pro-vocāre* (? with  $\bar{a}$  from  $\bar{AI}$ ). In Balto-Slavic the 2d sg. of the present comes from  $\text{-EI}$  (without  $\text{-SI/-S}$ ), and the Latin imperative *nolī* seems also to belong with the infin.-impv. in  $\text{A}^{\text{X}}\text{I}$  or  $\bar{\text{E}}\text{I}$  (with a possible grade  $\bar{z}$ , cf. § 59). I explain the relation of  $\phi\acute{\epsilon}\rho\epsilon\iota\varsigma$  to the Balto-Slavic form on the supposition that an infinitive  $\phi\acute{\epsilon}\rho\epsilon\iota^{\wedge}$  was followed by  $\text{EIS(I)}$  'is', whence, with haplological shortening,  $^*\phi\acute{\epsilon}\rho\epsilon\iota\sigma(\iota)$ . Suffixless locatives (? cf. on  $\theta\epsilon\nu\text{-}\acute{\epsilon}\epsilon\iota$ , § 68; 38) will also have played a part. Lat. *moneo mones monet* come from  $\text{MON}^{\wedge}\text{EYO}^{\wedge}\text{EYESI}^{\wedge}\text{EYETI}$ , a later flexion type than  $\text{EIMI EISI EITI}$ . Verbs in this conjugation might also come from the long vowel infinitive, say  $\text{habēi}^{\wedge}[\text{ei}]si$  (55).

*Infinitivals with ellipsed copula.*

57. As these complexes long remained separable various conditions obtained, so that we may legitimately suppose that a type  $\phi\acute{\epsilon}\rho^{\wedge}\text{EISI}$ , with participial prius, existed alongside of  $\text{BHEREI}^{\wedge}[\text{EI}]SI$ , with infinitive prius. It may also be that the infinitive  $\text{BHER}\bar{\text{E}}\text{I}$  picked up its person endings by imitation of  $\text{EISI}$  and  $\text{ESI}$  (cf. on the Bantu concords § 53). The Balto-Slavic type of 2d person is to be explained by ellipsis of the copula, whether  $\text{EISI}$  or

ESI.<sup>1</sup> By the same ellipsis we account for the Sanskrit "middles" *duhē* (sc. *asmi*) = mulgendo <sum>, *bhārase* (sc. *asi*; cf. Parmentier in *Mém. Soc. Ling.* 6, 391), *duhē* (sc. *asti*) = mulgendo <est>. We have also the 1st sg. *kerṣe* 'facio' in RV., with *-se* as in  $\delta\psi\epsilon\epsilon$  (65). The infinitive finally allocated to the 1st person ended in *-AI*, but to the 3d in *-EI*. Of this the proof is furnished by the equation of Lat. *vidi* with *oida*, startform *WOIDAI* with loss, under some samdhi condition (cf. § 1, 1), of final *-I*. From 3d person *oidē* I infer an infinitive in *-EI*. In the Skr. 2d plural *vida* we also have a weak-grade infinitive with samdhi loss of final *-I*. Thus distinction of person was effected by allocating the diphthong in *-AI* to the 1st, in *-EI* to the 3d sg.; but the samdhi form in *-A<sup>x</sup>* (sometimes from an infinitive in a different vowel grade) to the 2d plural. There was absolutely no uncertainty, as time went on, about these forms, granted the actuality of merely a contextual subject, any more than there is uncertainty to-day with English *I you he loved*. The Skr. infin.-impvs. in *-e* (*-se*) *-adhyai* are of all persons (see Speyer VSS. 216, d).

58. In Greek, as well as in Balto-Slavic, we have the infinitives without a copulative verb, whether *EIMI* or *ESMI*, viz.: in the Attic 2d sg. middle *φέρε* (cf. on Skr. *bhārase* § 57), in other dialects, with long diphthong, *φέρη*. The *-EI* infinitives may also function as 3d sg. of impersonal verbs like *μέλει*, sc. *έστι*; cf. Lat. *curae* <est>. True, *μέλει* may at some time have picked up a *-TI* to match other verbs, as Lat. *decet* (from *DECĒI*) probably did.

*Thematic ĩ from EITI; "causative" -EYE-*

59. Of anything that may be rightly called proof of the existence of *EISI* in the *BHEREISI* type nothing has been yet offered. A special group of Sanskrit verbs, special and therefore probably archaic, seems to me to furnish the proof. Omitting sporadic forms of the roots *gnath* 'forare', *jan* 'gignere', *vas* 'vestire' and possibly one or two more, there is a particular semantic group containing the forms *bravīmi* 'dico', *bravīsi* 'dicitis', *śvasīti* 'fremit' and forms from other breath-and-sound roots: *rud* 'flere', *an* 'spirare', *stan* 'tonare', *vam* 'vomere', *svap* 'dormire'. The *i* in these Sanskrit forms has, of course, been interpreted as *ə*, like *q* and *g*, a symbol much beloved when linguistics was becoming, to its

<sup>1</sup> Cf. RV. I, 32, 9 (see Speyer VSS. 172), where the inconcinnity of *çaye* after *āsīd* 'erat' perhaps means that *āsīd* is to be supplied again with *çaye*, and its infinitival accent restored.

great improvement, minutely phonetic. When we put Skr. *çvasimas* beside Lat. *querimur* their secret comes out. Their startform was KWES-[ES]^(participial, ? nom. plural) + IMOS, and the type does not differ from the iterative Plautine combinations *balitantes eunt*, *flens abiit* (cf. *exibant flentes*, Naevius)—see my lists, probably the largest accessible, in AJPh. 20, 154-157. It was because this combination with EIMI had a frequentative value that it was kept alive in this group of breath-and-sound words. In imperfects like *açvasit*, *î* is either like the *î* of *imahi* 'imus' or has arisen after the accent of an injunctive *çvasit* from *kwés^ēit* (*ēit* impf. of EIMI), see Kretschmer KZ. 31, 325 sq. Skr. *vam^imas*: Lat. *vom-imus* shows a participial or infinitival prius *wem^* or *wom^* (? from the root *wē* 'flare'; cf. § 38) + IMOS, whereas *έμέω* reveals in the posterius the flexion EYO EYESI EYETI (with secondary thematic diphthong in Greek). Here note the correspondence in regard of *î* between Epic Skr. *svāpita-* and Lat. *sōpitus*, the one from \**svapi^* *îtos*, the other from *swōpi^* *îtos* (for *swōpi* cf. *anu-svāpam*, RV.) 'somnum (ad)itus', euphemistic for 'interfectus'. Latin usage (only *sopitus* in Cicero, *sopitum fuisse* in a bit of old narrative in Livy) justifies starting with the participle with the euphemistic sense of 'interfectus'. Thence *sopire*, a back formation, 'interficere' [Correct Ennius Sc. 274 from *sopivit* to *sopiti*?]. Skr. *svāpāyati* (also = *interficere*) is from *svāpaya^* [*ay*] *ati*, and will have reached its causative meaning in some such way as *sopire*. There can be no reason to believe that -EYETI was originally causative; that the -eo of Lat. *doceo* is more causal than the *σκω* of *διδάσκω*—nor even that 'teach' is a causative of 'learn'. We have in OBulg. *nositi* 'ferre' (with an original long penultimate *î*) a like formation (pace Meillet Mém. 13, 374). It is curious how the type continued to ring true in late Latin *rudunt*, which might be from *RUD^(I)YONTI*, unless it were more likely due to pf. *rudivi* (cf. § 66). In Lat. *queo* composition with *ep*, though in a mistaken sense, has long been admitted. The root was *kwék^w*, in Skr. *çaknōti*, and this root meant as a participial 'potis'. In Latin *kwék^w* gave *cequ*, and with the negative, *necequ* (cf. for *na* + *çak* in Sanskrit Delbrueck ai. S. 429), whence by haplology *nequ^eo*. Skr. *yāt-āyati* when combined with *ā-* = hinstrebt zu, i. e. *ζητῶν εἶσι* (petens it). The prius *yāt-* is alive in Skr. *ṛṇayāt* = debitum petens, cf. *yātate* 'petit' and *ζητηταί* = quaesitores. In Greek, *ζητέω* is identical with Skr. *yāt-āyā-mi*, but has a more restricted range of meaning. In the future *ζητήσ-ω*, aor. *έζητησ-α* (18), the prius is \**ζητήσ* 'quaesitor', preserved

in the name of Ζηρύς, the ravishing Boread. For EIMI complexes in the perfect see § 66.

60. In *bráwimi* 'dico' (ultimate root in Lat. *memorat*) the long vowel was generalized. It may have been brought over from (a)*bravít* (cf. §§ 24, 59) but is more like to contain an infinitive prius *bravĩ* (locative to a U-stem as *át-tav-e* 'edere' is dative to a TU-stem). Cf. *hávitave* from *havĩ* + *ítu-*, a combination substantially repeated in Lat. *amatum iri*. In the somewhat formulaic Vedic sentence *ihá bravítu yás u tád ciketat* the Latin rendering 'hic dicere\_eat qui quidem hoc sciat' ("wer dies weiss, der sage es hier", Grassmann Wbch.) fairly represents in *dicere\_eat* my interpretation of the complex welded into *bravítu*; cf. ἀλλά τις εἴη εἰπεῖν in § 2, 4. This sentence type is also found in the Avesta, e. g. in V. 3, 27, *baða ida aēni bərəθi* = enimvero hic eam (hortatory = ibo) ferendo (i. e. feram). Here I note my explanation of *infítias(e) ire* (Cl. Rev. 10, 184), but *infítia(n)s* is not to be excluded (AJPh. 20, 157). In these combinations with 'ire' there is a strong frequentative note, as also in the breath-and-sound group (59): add from Livy to the other examples *canentes ibant*, *minantes ibant*, *ovans adit*, *ovans* and *triumphans init*, *contionabundus circumibat*. These complexes have that vivid note of reiteration that implies a spectator (cf. also Speyer VSS. § 205 b).

*Latin amaret and other EITI forms.*

61. It is interesting to observe that the combination with EIMI either survived (cf. Av. *aēni bərəθi* § 60) as a never forgotten potentiality of combination or, as Brugmann has recently suggested (IF. 30, 350), was revived in Latin *amaret*, which is from *amare* + EYETI (or the impf. EIT?). I feel great confidence in Brugmann's combination because it so well suits sundry imperfect usages, e. g.:

Mo. 462: *qui modo pultare potui si non tangerem*  
'why, how could I have knocked if I wasn't going to touch the door?'

But the problem of *amaret* is wider than Latin. The agreement between *ισταί᾿ηρον ισταί᾿ήτην* (infin. prius *ισταί᾿*, cf. on *ισθι* § 51 fn.) and Skr. middle aorists (dual) like *bhare᾿yāt(h)ām* (infin. prius *bhare᾿*) is too close to admit of their separation. The archaic dual ending *-yātām* either stands for YĒ-TĒM (: YĒ, cf. § 34) = 'they two went' or, taking *y* as a passing tone from the previous diphthong *-e*, is for E[Ī]TĒM : EI. The entire optative paradigm *ισταί᾿η*

-ης etc. shows the same composition. In the indicative we have Homeric (ἐ)-μίσγ-ης from the infinitive μίσγ[εῖ] + Ἐ[Ι]S. Here the prius was taken passively = *misceri*, not *miscere*, + *ibas*. The optative was from μίσγ[εῖ] + εἴης.

*The OI grade in the optative.*

62. A difficulty that may be raised as to the correlation of the -EISI and -OISI forms meets an easy solution: -EISI belonged under the accent, deflected -OISI after it, *WIKĒÍSI* 'intras' but *BHĒROISI* 'fers'. The original divergence in accent lay, as in Sanskrit it has been preserved, in the infinitive prius. Traces of -ĒIS may also obtain in the Sanskrit forms like *kramīs* (v. Macdonnell l. c. § 529), and a few forms in -āis -āit remain (see Lanman's note in Whitney's AV. 6, 32, 2). These forms have no certain connection with Lat. *erās*, which owes its form, as has been otherwise suggested, to the analogy *amabo : amabam : : ero : eram*. I date the analogy at the time when *-fam* still meant 'eram'. The weakening of the -ēis forms to -īs (59) belonged to a different period of vowel gradation from the deflexion of -EISI to -OISI, unless indeed the difference is one of position in the ultima and the penultima.

*Syntactical interpretation of the EITI complexes.*

63. The syntactical interpretation of the complex *BHEREI*[EI]-SI remains yet to give, viz.: that we owe to this combination the future-present and the various conative shadings. Speyer notes (VSS. § 215) that the Sanskrit infinitive, still nominal, is prevalently future. In Latin *amatum iri* the future note has been regularized, as much so as in Skr. *dātā'smī* (5) in contrast with *auctor sum*.

*The Latin ē-future an EITI complex.*

64. The possibility that this future type is an *Ē*-subjunctive cannot be gainsaid. Phonetically, however, under the conditions pointed out for *tegēbat* (43) and *acciēbo* (40), *tegēmus tegētis*, *capīemus capiētis*, *audiēmus audiētis* have an *ē* that may represent either the -EI of *fépeis* or the OI of *férouμεν férouτε*; or they may contain the infinitive prius with long diphthong (§ 58).

*Greek desiderative complexes in -ειω.*

65. Greek preserves a small, but interesting, group of forms of desiderative force where composition with *EIMI* seems indubi-

table. Monro's list for Homer, with his renderings, contains the following words:

a)  $\delta\psi\epsilon\iota\hat{\omicron}vres$  "going to see". Here the prius  $\delta\psi\epsilon\iota-$  is an infinitive in  $-SEI$ , cf. Skr. *upa-prák-ṣe* (root *prc*) 'to unite', *ji-ṣé* 'vincere', *stu-ṣé* 'laudare', Lat. *da-rei*,<sup>1</sup> etc.; note  $-Sf$  in Lat. *esse*, *velle*, etc.; cf. § 39. The posterius was (I)YONTES: Skr. *yántas*.

b)  $\kappa\alpha\kappa-\kappa\epsilon\iota\omicron\nu\tau\epsilon\varsigma$  "going to bed". Prius  $\kappa\alpha\tau(a)-\kappa\epsilon\psi-\epsilon\iota\hat{\omicron} + (I)YONTES$ . Cf. Skr. *svapīta-* (59) 'gone to sleep'.

c)  $\pi\tau-\acute{\omicron}\mu\epsilon\nu\alpha$  "going to drink". The startform was  $PI[YEI]\hat{\omicron}YO-MENA = bibere_{iens}$ .

d)  $\delta\rho\alpha\iota\upsilon\epsilon\iota\varsigma$  "thou art for doing". I see in  $\delta\rho\alpha\upsilon-$  the blend of an infinitive  $DR\bar{A}M$  (like Skr. *sthām*,<sup>2</sup> RV. 9, 85, 11, cf. Wolff l. c. 89) and  $DR\bar{A}I$  (as in Skr. *prati-māi* 'imitari': *pra-mé* 'formare'). But the division  $\delta\rho\alpha i-\upsilon\epsilon\iota\varsigma$  is also possible, cf. § 85.

e)  $\kappa\tau\alpha\nu-\acute{\epsilon}\omicron\nu\tau\alpha$  (§ 309) "him that would slay" (Lang Leaf, Myers). For  $\kappa\tau\alpha\nu-$  see § 17;  $-\acute{\epsilon}\omicron\nu\tau\alpha = Lat. euntem$ .

*Latin seek-and-search group; pf. in-ivi.*

66. Latin also has an abnormal group of verbs meaning 'to desire, seek', with perfects in  $-ivi$ . Hitherto, in agreement with most scholars, I fancy, I have thought *cupivi* the original on which the others were modelled. But in view of its cognates (see Walde s. v.) *cupire* is as abnormal flexionally as *\*cupire* would be. The verbs to start with are *quaesivi* or *petivi*, with posterius  $\hat{\omicron}ivi$  'I have gone'. In  $quaes\hat{\omicron}$  and  $pet\hat{\omicron}$  I suspect that we have participials rather than infinitives. The derivation of  $quaes\hat{\omicron}$  from a nominative in  $-s^s$  (§ 1) explains the problem of retained  $-s-$  in Latin (note also *quaeso* from  $quaes\hat{\omicron}[es]o$ , as in § 67). I recognize in  $qu-aes\hat{\omicron}$  a compound of the preposition  $SKU: \xi\acute{u}(v)$ : root  $SEK^w$  (see Fay AJPh. 33, 397<sup>1</sup>) +  $AIS (eis)$  'pursuer' (cf. Fay IF. 26, 27 sq. on  $\alpha\acute{\iota}\mu\omega\nu$  'hunter'). The prefix  $skw = co-$  implies a body of searchers rather than an individual, and the plural  $quaes[es]\hat{\omicron}ivimus$  may have been the prior form (cf. *petes\hat{\omicron}sunt* § 67).<sup>3</sup>

<sup>1</sup> It should be of common knowledge that the infinitive is of either voice, and why (cf. e. g. Fay AJPh. 15, 221; for the fact cf. Speyer. l. c. § 216 b, and [unconsciously] Goodwin op. cit. § 771).

<sup>2</sup> In AJPh. 16, 16 I explained *āuhām* as 'to the milking', i. e. "mulgeat", from a cry, quasi "ad mulgendum!" Also note Bloomfield's translation (AV. 5, 30, 13) of  $\xi\acute{\alpha}\rho\iota\tau\alpha\mu\ \acute{a}\varsigma\upsilon\alpha\ \acute{s}\acute{a}\mu\upsilon\upsilon\delta\acute{\alpha}\mu$  by "His body shall collect itself (corpus eius <se> colligat).

<sup>3</sup> My derivation of *accerso* in TAPA. 37, pp. 5, 24, seems to me still entirely convincing, and the assumption of anticipation of  $r$  in *arcesso* still not improbable. But *arcesso* may be of different origin from *accerso*, for instance from

*The thematic vowel: ESTI conjugation; root-conjugation.*

67. The injunctive future aorist desiderative complexes studied under *rex^ero* (8 sq.) were relatively late Indo-European. The combinations represented in the *φέπεις* type were probably old and moribund at the time of the upbreak. What we know as the *o/ε* conjugation was early also, but formed, as I hope to show, out of complexes with infinitives and participials (agent nouns) with *ESMI*, analogically modified by the *EIMI* complexes. Later complexes with *ESMI*, that is complexes that show the -s nominative prius, are also found, as in Skr. *rākṣ^ati* 'protects': *ἀ-λέξει*. These have gunated forms as compared with the vriddhied type of *δειξω*, the zero-grade of Skr. *dikṣ^āt* (14). Note also Skr. *dveṣ^[ES]mi dveṣ^[ES]i dveṣ^[ES]ti*, plural *dviṣ^mās* etc., graded like *i-mās* 'imus'. The mode of flexion here is absolutely identical with a complex like Herodotean *ἐνίρεξ̄ ἐοῦσα*, whence we might have had *\*ἐνίρεξ̄^[εσ]τι* 'parturit'. Cf. Skr. *dāṣṭi* 'honors' (or *tāṣṭi* 'builds') from a vriddhied prius *DĒK̄s^[ES]TI*; or Lith. *sēst* 'sedet' from *sĕ(D)s^[ES]TI*. The pervasion of the plural by the singular in these complexes will have been due to the formations with infinitive prius (cf. §§ 4, 38). In words like Lat. *fers* I see nouns with (a secondary or retained) nominative -s (see § 17); i. e. *fers* is from *BHERS^[ES]I*, Skr. *bhārmi* from *BHERS^[ES]MI*, with loss of s between consonants. Formations of this date should have had in the plural *BHER-ES* and in a few Latin words that plural not only survived but went into the singular. The type is found in *expetes^sunt* (or *expetes^unt?*, 74) whence *expetes^so* (cf. § 66 fn.).

68. The IE. paradigm of the complexes with *G^WHEN* or *G^WHENEI* (§ 38) would have been, with hapologic shortening,

Sg. <i>G^WHEN^EIMI</i>	<i>G^WHEN^EISI</i>	<i>G^WHEN^EITE</i>
Pl. " <i>^EIMOS</i> (IMOS)	" <i>EITHE</i> (ITHE)	" <i>EYONTI</i> (I)YONTI

The actual survivors of these complexes have been noted above (59, 65).

69. In the *ESMI* complexes also we may even count on the infinitive prius; cf. *āstam . . ran* § 38; and Av. *Yimo asti bərəθe* (V. 2, 7) *Y. est ferendo* ("ist in besitz"), i. e. *fert, adipiscitur*. But a participial might also be admitted, with the feminine *BHERĀ*,

*\*ad.seques sunt.* The prius would have meant 'pursuers, apprehenders' (cf. *mustela mures adsequitur*). Now supposing *d* analogically reinforced in the compound a secondary regressive assimilation to *\*adseques* may have resulted, and thence *arcessunt*, a synonym of *accersunt*. Note in the Avesta the zero-grade form *a-sk-arə* 'sie vergingen' (Bartholomae Grund. Iran. Phil. 1, 310, 15).



neuter BHER, as well as the masculine. From BHERĀ, 2d sg. BHERĀ'SI (see § 51), came the *ā*-forms called subjunctives, but cf. Lat. *-bam -bas -bat, eram eras erat*, which were probably never subjunctives at all (81 fn.). As in *expetes-sunt* (66) the masculine plural BHERES<sup>^</sup> may have existed and have gone into the singular (where neuter BHER was perhaps already to be found)—with loss of its -ES in the 2d plural—by an analogy yet to be shown (70).

*The Paradigm with ESTI.*

70. Pl. BHERES<sup>^</sup>[ES]MOS BHERES<sup>^</sup>[ES]THE BHERES<sup>^</sup>[ES]ONTI.<sup>1</sup>

Of these forms there is at least one that remains, whether the posterior was ESTHE or STHE, quite intact, viz.: in Greek *φέρεσθε*, 2d pl. middle. In the singular the paradigm, with a suffixless infinitive or neuter participial prius, was

Sg. BHER<sup>^</sup>ESMI      BHER<sup>^</sup>ES(S)I      BHER<sup>^</sup>ESTI.

With the 2d sg. Skr. *bhāraṣi*<sup>2</sup> is identical. Thus there existed in the proethnic speech rival singulars BHER<sup>^</sup>EISI and BHER<sup>^</sup>ESI, BHER<sup>^</sup>EITI and BHER<sup>^</sup>ESTI, resulting in an analogical 3d sg. BHER<sup>^</sup>E[S]TI. In the plural BHER<sup>^</sup>EITHE stood beside BHER<sup>^</sup>ESTHE, resulting on the one hand in Skr. *bhāra[s]tha*,<sup>3</sup> on the other in Lith. *ėi<s>te* 'itis'. In Greek, BHERESTHE survived as a middle because of *σθ* in infinitives and forms of *τιθημι* (82). In 1st plural BHERESMOS, S was dropped after the pattern of BHER<sup>^</sup>(E)ĪMOS (68), and BHEREMOS then deflected to BHEROMOS. On the model of EI<sup>^</sup>MOS to EY<sup>^</sup>ONTI (Lat. *eunt*) the pair BHEROMOS and BHERONTI came into being—unless ENTI (deflected to -ONTI) be recognized in a word with suffixless infinitive prius like Skr. *bhan<sup>^</sup>anti*: Lat. *dan<sup>^</sup>unt* (: Av. *dan* § 38); cf. § 38 fn., 51.

71. The 1st person BHERŌMI is still unaccounted for. This will have come from BHERESMI as BHEROMOS from BHERESMOS. The secondary ending without *-i* will have appeared in the form E)BHEROM : BHERŌ : Skr. *ahām* : *éγώ(ν)*. Observe this ending *-om* also in the pronouns *ayām* (as a copula in RV.; see § 46), *idām* etc. For the phonetics of *éγώ(ν)* cf. *δῶ*: Skr. *dam-*, stem or suffixless

<sup>1</sup> Or BHERES<sup>^</sup>ONTI; see § 51. The penultimate o is due to deflection.

<sup>2</sup> In Armenian all 2d persons, if projected back to the mother-speech, end in ESSI, and are explained by Meillet (Gram. § 87) as due to the analogy of ESSI = Hom. *έσσι*. This is scarcely more probable than to suppose that BHER<sup>^</sup>ESSI, not BHER<sup>^</sup>ESI, survived in Armenian.

<sup>3</sup> The aspiration may well have belonged at first to the 2d plural (E)STHE, wherein we have the element ST(H) (see § 51), and not to 2d pl. \*EITE 'itis'.

locative or genitive with lost (E)S, in the compound *dám-patis* 'im Hause Herr'; cf. Av. *dqm*, *šv-đov*.

*The perfect endings; elliptic perfect forms.*

72. If the three stems of the Sanskrit perfect participle [cf. 40 fn.] from EI 'ire' had representatives in Latin they would be *ivōms-*, *īvos-*, *īyus-*, with probable doublets, due to levelling, *īyos-*, *īvus-*. The Latin correspondent of Skr. 1st. sg. middle *\*īye* would have been (as it is) *īēi* and thence—with intrusive *v* from the participle doublets—*īvi*.<sup>1</sup> From Skr. 3d pl. active *īyús* we should expect in Latin *\*īus*, but we actually have *ierunt*. This *-runt* I take as the equivalent of Skr. *-ran* of the 3d pl. optative, but sporadically found in other forms also; see the lists in Dottin's *Les Désinences Verbales en R*, p. 19. The equation of Skr. *dadīran* (3d pl. opt. middle) with Lat. *dedērunt*, OLat. *dedrot*, would be perfect were it not for the length of *ī*, but we have *ī* in *ā-cakrīran* plupf. : *cakrīrē* pf., and in *ā-jagmīran* : *jagmīrē*. Note also that Skr. *da-dhūs* is matched by Av. *dā-darō*. Now I take *īyús* to end in original *-s* not *-r* and to be a haplological form of the participle in the nom. plural *īyuṣas*<sup>2</sup> (cf. *emuṣám*, *cakrūṣam*, acc. sgg. with weakest stem), with omitted copula, say, ESONTI or ESON, i. e. *īyuṣ[as]^(ēson)*. For the type of perfect cf. *ἐμοῦ οἱ νόμοι ἀπεγνωκότες εἰσὶ* (Lysias) "the laws have acquitted me" (Goodwin l. c. § 45).<sup>3</sup> The corresponding form in Avestan, accidentally not attested, would have been *\*īyarō* = Umbr. *ier* (92). These forms belong with Skr. *īyārṣi tyarti* 'is it', which are blended out of the roots *i* and *ar*. The ending *-ar* was productive in Avestan and in the Gāthas appears as *-arōš*, *-š* being the nominative *-s* of the tautological noun *\*īyarōš*, cf. the gen. sg. of agent nouns in *tarōš* from *-TOR(E)S*. (On Skr. *-tur* see § 89.) A similar shortening would have produced a nom. pl. *\*īyarōs* from *\*īyar(e)s*. The same root *ar*, with a byform *īr*, is also to be recognized in the Skr. endings *-ire -iran* already mentioned. The forms in RONT(I), like Lat. *dedērunt*, have an infinitive prius in *-E(I) + RONTI : ER :: Skr. yanti* to EI. These complexes with RONT(I) and other forms of ER were never fully developed, but range most widely with the Skr. roots

<sup>1</sup> Was this one of the chief sources of the *-vi* perfects in Latin?

<sup>2</sup> Inversely after the relation of 3d plur. *īyús* (pf.) : *\*īyuṣas* (ptc.) a participle EYONTES (Lat. *euntes*) was created to EYONTI (Lat. *eunt*).

<sup>3</sup> Entirely analogous, it would appear, to the Amharic constructive mood; cf. *hēdo* (he\_having\_gone) *-al* (he\_is) with Lat. profectus est. See Alone's Short Manual p. 21.

ḡī 'to lie' and duh 'to milk' (see Dottin, l. c. p. 22), and precisely because of the availability of the phrases 'to go to bed' and 'to go to milk'.<sup>1</sup> Outside of Sanskrit, cognates of the auxiliary verb ER 'ire' are found in Eng. *art* 'es' and perhaps in Lith. 3d sg. (dual, pl.) *yra* 'est'.

73. Returning to Lat. *dedē̃runt*, its prius was the infinitive DEDAI (cf. Skr. *ḡrad-dhē* § 38), which, under the conditions assumed for *tegebam* (43), would have yielded *dedē̃runt* in the complex. In *dedē̃runt* the prius is DED[A<sup>X</sup>I] + (E)RONTI. In *dedē̃re* I equate *-rē* with the *-re* in Sanskrit *ḡakrīrē*, taking *-ē* as the samdhi variant of *-EI* (§ 1, 1).

74. The assumption that Skr. 3d pl. pf. *īyus* is a pf. participle, with omission of the copula, meets its full justification from the Italic dialects. There the 2d sg. *benus* 'venisti' is from *benus's*, like Lat. *rēctū's* etc. in Plautus; and 3d sg. *benust* is from *benus'(e)st*. In the 3d plurals Osc. *angetuzet*, Umbr. *haburent* (if these are not analogy forms, cf. Buck Elem. Buch § 193), either the participle in *-us* + 3d. pl. *set sent* 'sunt' lost one *s* before rhotacism set in, or we have to recognize a form ENT(I) 'sunt', as suggested for OIr. *it*: Doric *ivri* (51). On the future perfects Umbr. *benuso covortuso* see § 92.

75. In Lat. *dedē̃imus*: Skr. *dadē̃imā* we have a posterius in IMOS (cf. on *vomimus* § 59). The prius *dedē̃* will have been submitted to some analogy, probably of the 2d plural below. The Skr. duals *-athus -atus* are the *-athas -atha* of the ordinary thematic flexion, influenced by the *-us* of *īyūs* etc. Likewise in Av. 3d dual *-alar* we have the trace of *\*īyar<sup>s</sup>*. In Latin *dedē̃stis* the dual *sthes* (: *stha* § 51) is still alive and the prius is an infinitive. The 2d singular of the "contracted" type in Latin, as in *adduxti*, ended originally in STHAI, a diphthongal infinitive (sc. *es*) preceded by the agent noun *dūx* or *\*doux*. In *nostī* (see also on *ἀ-γνωστος* § 80) we may have an infinitive prius ḡNŌI, like the Avestan forms in § 4; or an agent noun ḡNŌS (16). This STHAI, besides being preserved in *δόσθαι* etc. (82), is open to clear vision in the Avestan sentence *tūm no Aθraom zaotā̃stē* (imperative-infinitive) = *noster*, O A., *tu flamen\_stare*. This use of *stē* (from STHĀ not ES, see Fay AJP).

<sup>1</sup> Notwithstanding the tendency of recent years to replace the "milkmaid" by the "suckling", it may be remarked that if the agent suffix TER means 'faciens' (see §§ 88-89) then Skr. *duhi-tār* 'daughter' originally meant 'in\_mulcendo faciens' (unless here *-TĒR-* = 'iens': Skr. *tārati*), whereas *θύγα-τήρ*, with secondary accent for *\*θύγα-τήρ*, had originally an accusative prius DHUGHOM reduced, with loss of aspiration before the nasal, to DHUGM. Cf. *λάβον* in 82.

33, 381, 9) is only a special case of a combination found in RV. 6, 63, 4:

- a) ūrdhvó vām agnīr adhvarésu *a sthā t*  
 c) prá *hótā* gūrtāmanā urāṇāḥ  
 sursus noster Agni in sacrificiis *stetit* (gnomic)<sup>1</sup>  
 porro *flamen* gaudi\_mens delectus

Certainly *zaotā stē* is not to be separated from *zaotarēm stayata* in Yt. 10, 89 = flaminem constituit. As everybody's mind has been committed in favor of -THA instead of -STHA in *oiotha*: Skr. *vēttha* 'nosti', ready acceptance for -STHA—an explanation that I advanced in AJPh. 16, 16—is not to be expected. Certainly -THA had been proethnically generalized from consonantal combinations wherefrom the s had been extruded as, say, in Goth. *skalt* 'shalt'. This generalization aided in the introduction into Skr. 2d singulars like *ni-nāy-itha* of *itha*, 2d pl., = 'itis'; here *ni-nay-* is an infinitive to the root NĒI (Skr. *nī*, see § 85). Still the range of -*oṭha* in Greek (v. exx. ap. Brugmann Gr. Gram.<sup>3</sup> § 411, 3) makes for -STHA, and we have further flexion forms of STHĀ in Homeric *ἐγγήγορθε*σι (posterius = STHĀNTI: Lat. *stant*), impv. *ἐγγήγορθε*. To the 2d sg. in -s)THA we owe the aspiration in *κέκλοφ-a* and its kind (2d sg. \*κε-κλοφ-[σ]θα).

#### Conjugation complexes with STHĀ.

76. Lithuanian has a somewhat large body of presents in -*sta-*, as to which see Wiedemann Gram. § 181. These I derive from the root STHĀ inflected as STHO/E, cf. Skr. *tī-ṣṭhati*, Lat. *sisto*. Their general sense is inchoative, but the frequentative might have developed as well; cf. the participial combinations cited above (3-4)<sup>2</sup> and Speyer VSS. § 205, b. The Avestan form *zaotā stē* (75) is

<sup>1</sup>The "gnomic" tenses are survivals from the tenseless period. They lived on in proverbs (cf. Gildersleeve l. c. § 255, for the range of usage) because sentences of proverbial content brought their tenselessness down with them from the primitive time. Cf. on Skr. *asmī* = ego in fables (53). Note the gnomic use of *erit*, the form combined with *rex* etc. (8 sq.), retaining its tenselessness in Plautus Mo. 1041:

qui homo timidus *erit* in rebus dubiis nauci non *erit*,

followed by a line revealing the antiquity of what really is a sort of proverb:

atque equidem quid id esse dicam *nauci* nescio.

<sup>2</sup>Note the combination of 'stare' with a participle in *σῆ δὲ μάλ' ἐγγὺς ἰὼν* (Iliad, 4<sup>o</sup>); cf. with a participial *φονέα με φησὶ . . . καθέσταναι; ἀπαρνος δ' οὐδένης καθέστατο* (Sophocles). In Latin we have *restant fodantes* (Ennius); *stabant orantes, perstabat* memorans (Aeneid); *stat* expectans (Cicero. Cat. 4, 2); *potentes stamus*, i. e. sumus (Propertius 4, 22, 21).

typical of how the combinations might have looked at first. Homeric  $\psi\epsilon\upsilon[\delta\sigma]\sigma\tau\eta\sigma\epsilon\upsilon\varsigma$  (T 107) = "thou shalt play the cheat" is every whit as plain as Lat. *auctor es/eris*. In the Homeric frequentatives  $\nu\epsilon\upsilon(\sigma)\sigma\tau\acute{\alpha}\zeta\omega\upsilon\upsilon$ ,  $\epsilon\lambda\kappa\upsilon(\sigma)\sigma\tau\acute{\alpha}\zeta\omega\upsilon$ <sup>1</sup> the posterius contains the *d* of  $\sigma\tau\acute{\alpha}\delta$ -a 'stagnantem'—a D that has come in from the *sedeo* sept—inflected after the YO/E class. In Latin, *gu(s)stat* contains a prius  $\widehat{G}\widehat{U}S$  'tasting'; and *vastat*, from *vapstat*, belongs with Av. *yasčā vāstrā vīvāpat* "und der die weideländer verwüstet" (*quisque prata vastat*).

*The texo-plec[s]t(h)o group in Latin; frequentatives.*

77. In *va(p)sstat* I see a relatively late combination (cf. Germ. *feststeht*) of a participial prius with *stat*. There was an earlier flexion type with *STHO/E* preserved, in a curiously compact semantic group, viz.: in Lat. *flecto, plecto, necto*, verbs meaning 'to plait, bind' or the like; also, as nobody has hitherto recognized, in *texo* from IE.  $\text{TEKS}^{\sim}\text{STHO}$  'I weave' ('I wattle')—a house; see Meringer Wört. u. Sachen 3. 52. In Latin *texo*: Skr. *tekṣati* T(H) was lost, perhaps by dissimilation with the initial T (ST-); but in Greek  $\epsilon\acute{\epsilon}\kappa\tau\omega\upsilon$  'builder, wattler' -*κτ*- is the due form for -*KSTH*-, as in  $\epsilon\acute{\epsilon}\kappa\tau\omicron\varsigma$  '6th': Skr. *ṣaṣṭhás*, cf. -*ct*- in *flecto, plecto, necto*. It is not to be determined whether in these words *STHO/E* meant 'to weave' (cf. e. g. Walde s. v. *stamen*), with an accusative prius; or meant 'to stand', of the attitude of the weaver wattler twister, with an infinitival prius. There was always occasion, at the junctionpoint of compounds, for varying treatment of heavy consonant groups according to the semantic preponderance of one or the other member in the mind of the word-user. Note cases like  $\epsilon\acute{\epsilon}\kappa\tau\omicron\varsigma$ : Lat. *sextus/Sestus*, OHG. *wast/wahst*. In the combination *KST* the unhampered product was *KT*, but *KST*, and subsequently *KS* or *ST*, are analogy or recombination products. This seems to be proved by OBulg. *pletā*, with *t* from *KT*,<sup>2</sup> but infin. *ple[k]sti*<sup>3</sup> 'flectere'.

<sup>1</sup> But  $\beta\alpha\sigma\tau\acute{\alpha}\zeta\omega$  contains an accusative  $\beta\acute{\alpha}\rho[o]\varsigma$  +  $\sigma\tau\acute{\alpha}\zeta\omega$  in transitive value = 'stands up, weighs', cf.  $\lambda\omicron\tau\omicron\nu$   $\sigma\eta\sigma\alpha\iota$  etc.

<sup>2</sup> For *K* not *R* we must look to Lat. *plēcto* 'I beat', from a vriddhied noun  $\text{plēks}^{\sim}$  'beater' (cf. Lith. *plėkiu* 'plēcto') + *STHO/E*; cf.  $\tau\acute{\upsilon}\pi\tau\omega$ , same sense, 'I whip', noting Eng. *whip*, action noun, = 'driver'. The noun stem  $\text{plēk}$  meant 'rod' or 'switch' (Lat. *verber*) as used in wattling or basket-making; also in beating, cf. Eng. *lashes* = 'plēctit' (= binds with a lash) and 'plēctit' (= beats with a lash). In Skr. *praç-na-s* a *Ṛ*-final is found. Note the *Ḡ*-final in  $\text{plāyios}$  'obliquus',  $\text{plāyios}$  'latus' (named from the 'basketry' of the ribs). Perhaps *praç-na-s* 'basket' (with *r*=L) is to be correlated with *praç-nā-s* 'question' (: Lat. *prec-es*), with *r*=R. The original *r*-stage is found in  $\text{pōrokos}$  'fishing-net',  $\text{pōrokos}$  (Homer) 'band, hoop'. The *l* variety would be due to rhyme with the *flecto* sept. On the face

78. In Skr. *cēṣṭati* 'stirs', *veṣṭate* 'wraps' we have frequentatives from  $\bar{K}\bar{E}I$  and  $WEI$  (see Uhlenbeck Wbch. s. vv.), or rather complexes with  $\bar{K}\bar{E}IS^{\wedge}$  and  $WEIS^{\wedge}$ , nominatives, +  $STHO/E$ ; but the conditions of the loss of aspiration are not clear. On the other hand, the aspiration lies clear to sight in *αισθάνω* 'I perceive', prius  $AIS$  (see on  $QU-AIS^{\wedge}$  § 66), 'accipiens, capiens' (see Thes. Ling. Lat. for these as verbs of sense perception) +  $\sigma\theta\acute{\alpha}ν-\omega$  (see on Lat. *dānunt* § 70). Is *ἀμυπράνω* 'I miss' from  $\bar{N} + M\bar{K}\bar{R}S^{\wedge}$  (: Skr. *mṛṣāti* 'touches') = non- $\bar{t}$ angens +  $STHAN\bar{O}$ —with aspiration subsequently shifted to  $\delta$ ? The frequentative note is not altogether vanished in  $\epsilon[\delta\sigma]σθίω$  = edens<sub>sto</sub>; but (*F*) $\epsilon\sigma$ -*θημένος* is a compound of *F* $\epsilon\sigma$ - 'vestis' with a participle of *τίθημι*. Cf. on *ἔν-νυμι*, 85.

*IE. ARK(I)-STHOS 'cave-dweller; bear'.<sup>1</sup>*

79. The *texo* sept and the *ursus* sept constitute the best proof yet offered for  $-(K) p$ ,<sup>2</sup> but in *ἄρκτος*, as in *τέκτων*,  $\kappa\tau$  goes back to  $KSTH$ . I start from  $ARK-I-STHOS$  reduced to  $ARK-STHOS$  by gradation (§ 1, 3). The complex meant either 'ad arcendum stans', of the bear's posture in "hugging" (and so was eventually a "superlative"; see *AJPh.* 31, 409 sq.); or more likely 'in arce

of it, 'question' and 'reed' (for plaiting) are not correlated concepts, but if one bethink himself of the sticks used in drawing lots (? or of the *cortina*, cf. Fay in *Cl. Rev.* 11, 298) the correlation may become evident. If, as Lobeck taught us, *ἀνείλε ἢ Πυθίη* (=respondit Sibylla) got its sense from the picking up of the lot-sticks, then the casting of those sticks was tantamount to proposing a question, making a petition. The Pythia played (*spielle*) jackstraws and worked *spells* with marked *spillikins* (? runic *buch-stübchen*). On the non-Germanic cognates of Eng. *spell* see Fay *AJGerPh.* 6, 427. The prayersticks of the American Indians (see *Handbook of Am. Ind.* 2 s. v.) furnish a general analogy to the Pythia's spillikins. Note that as in jackstraws so in the game of jackstones children still keep alive the old games of divination.

<sup>1</sup>On  $-STHI$  as an infin. posterius see § 82. The retention of  $s$  in the group  $KSTH$  will have been due to the influence of the (separable) infin. suffix; on the tenacity of suffixal endings see Verner and Bartholomae, cited in *AJPh.* 33, 383.

<sup>2</sup>There is a curious censure of Arabic lexicographers (see *Encyc. Brit.* 24, 727) for putting down 'tearer' and 'mangler' as names for lion, because the poets have employed these words to describe the lion.

<sup>3</sup>Most of the material gathered in Brugmann's *Grundriss*<sup>2</sup> 1, § 920 for  $p$  really shows complexes with  $STH\bar{A}$ . (1) The *kṣi-t-s* sept, meaning 'dwelling', is blended from the roots  $\bar{K}\bar{E}I$  'to lie' and  $STH\bar{A}$  'to stand'. Lith. *ssei-mýnas* comes solely from the roots  $\bar{K}\bar{E}I$ ; OSax. *sethal* either has  $s$ - from  $KS[T]$ - (with dissimilation due to the following  $T$ ?) or its  $s$ - comes from the *sedeo* sept. (2) Boeot. *δκαλλος* will owe its  $r$  either to general irradiation from the parts of the body with  $STH$  (see Fay *AJPh.* 34, 23 sq. §§ 59-75) or to the specific note contained in *oculi stantes* (Ovid),—*eminentes* (Cicero). (3) In *κτάομαι κτήμα* 'property' we may have to recognize a \**κῶομαι*: Lith. *tḗkti* 'to come in to one's possession'. (4) In *κίλος* 'still' we have a blend of  $STHLOS$  and of some like derivative from the root of Lat. *quies-*, a root that looks, after all, to be cognate with  $\bar{K}\bar{E}I$ , with the palatal guttural. Perhaps the root was  $\bar{K}(W)\bar{E}I$ . For Lat. *silet* and Gothic *-silan* I recognize an initial group  $\bar{K}(W)STH-$ .

stans', of the habitat of the cave bear. The arx was a mountain fortress or stronghold, originally a cave; cf. *arca* 'chest', *arcānus* 'secret', *arcera* 'covered wagon'. The further reduction in Lat. *ursus* (from  $\text{RK}[I]\text{STHOS}$ ) would seem to show a double weakening before the accent, 1st of I, 2d of AR to  $\text{r}$ . On Lat. *rs* from  $\text{RKSTH}$  see § 80. The shorter form in *ἄρκος* will have come, with haplology, from  $\text{AR}[KI]-\text{KOS}$  'in specu cubans'; cf. Skr. *giri-ḥas* 'in monte cubans' with *giri-sthās*.

*The past participle in -(S)T(H)OS.*

80. If we start with an infinitive  $\text{BHUDH}\acute{\text{I}}$  (suffixless  $\text{BHUDH}\text{?}$ ) = Skr. *budhī* and add  $-\text{STHOS}$ , the complex  $\text{BHUDH-I-STHOS}$ , with loss of I before the accent (§ 1, 3), would yield Skr. *buddhās*; i. e., supposing s to have been lost in this or some other heavy consonant group. So  $\text{KER}[I]\text{STHOS}$  'factus' would have yielded Skr. *\*kṛthās*, and  $\text{UK}^{\text{W}}[I]\text{STHOS}$  Skr. *\*ukthas*, and we actually do have *ukthām* 'carmen', a sacred word with retained TH. In Skr. *bhaktām* 'divisum' TH would reduce by Grassmann's law to *t*. From words like this the unaspirated suffix seems to have been generalized in Sanskrit, or even earlier in Indo-Iranian. In roots ending in  $-\text{s}$ , in such participles as Skr. *uṣṭā-s* : Lat. *ūstus*, Skr. *juṣṭā-s* : Lat. *gūstus* (noun), the reduction, whether by haplology or before the accent, of  $\text{GUS-I-STHOS}$  to  $\text{GU}(s)\text{STHOS}$  had led to the conception of the ending as  $-\text{T(H)OS}$  further to reinforce form-complexes like those represented in Skr. *bhaktā-s* and *ukthā-m*, wherein s had also been extruded from a heavy consonant group. Exceptions to Bartholomae's law like Av. *basto* : Skr. *baddhās* 'vinctus' (but *vərəzdā* : Skr. *vṛddhās* 'senes') may be due to the greater semantic prominence of  $-\text{STHOS}$  in a complex long felt as 'in vinculis stans'. In Latin participles like *mulsus*, *pulsus* (? cf. *census*)  $\text{STH}$  in the group of three or four consonants yielded s; cf. *ursus* (79) from  $\text{RKSTHOS}$ . The passive force of the  $-\text{STHOS}$  complexes came from the infinitive prius. This is to interpret  $\text{BHAG-I-STHOS}$ , say, by 'in

idivendo (divisione) stans' and  $\text{BHUDH-I-STHOS}$  by 'in

expergendo (vigilantia? or *ad* *vigilantiam*) stans'. Other complexes of the infinitive prius +  $\text{STHOS}$  yielded the superlative (see § 79). Sporadic exemptions from the generalization of  $-\text{TO-}$  rather than  $-\text{ST(H)O-}$  are to be recognized in *ἄγνωστος* (Odyssey) : Lat. *ignotus* and in Latin *pāstus* (prius the infinitive, not root, *pāi*, see § 4) : *ἄπαστος* (which may be from  $\text{PĀ}[SI]$ , like Lat. *dāre*, +  $\text{STHOS}$ ) = non in

edendo stans. In compounds (like *ἄγνωστος*, *ἄπαστος*) archaisms of form or meaning are often retained.

*The Aorist in -STHĀS (-STHĒ-S).*

81. The forms  $\acute{\epsilon}\text{-}\gamma\upsilon\omega\sigma\text{-}\theta\eta\varsigma$  : Skr.  $\acute{a}\text{-}j\tilde{n}\acute{a}s\text{-}t\tilde{h}\acute{a}s$ , generally supposed to have drawn their s from the actives  $\acute{\epsilon}\text{-}\gamma\upsilon\omega\sigma\text{-}\epsilon\ \acute{a}\text{-}j\tilde{n}\acute{a}s\text{-}am$  (i. e.  $\tilde{G}\tilde{N}\tilde{O}\tilde{S}^+ + \tilde{E}SA$ , see § 18; on  $\text{-}j\tilde{n}\acute{a}s\ \acute{a}\text{-}\gamma\upsilon\omega(\tau)s$  with passive sense from the reciprocal see Fay IF. 29, 418), may rather be  $\acute{\epsilon}\text{-}\gamma\upsilon\omega\text{-}\sigma\theta\eta\varsigma$ , with  $\text{-}\sigma\theta\eta\varsigma$  : Skr. injunctive  $sth\acute{a}s = Lat. stas$ .<sup>1</sup> The prius would be  $\tilde{G}\tilde{N}\tilde{O}[SI]$  (like Lat. *fāre* § 39) or  $\tilde{G}\tilde{N}\tilde{O}I$  like Av. *vōi* (§ 4; cf. Gāthic *fra-xšni*, Bartholomae Gr. Iran. Phil. § 260, 1) and the complex would mean 'ad\_nosendum stas'. The loss of s- from (S)THĀS and its generalization to -THĀS would be analogous with the same loss in the past participles (80). Out of 10 random examples chosen by G. Meyer (Gr. Gram.<sup>3</sup> p. 615) to exhibit the preponderance in Homer of  $\text{-}\theta\eta\upsilon$  aorists over  $\text{-}\eta\upsilon$  aorists 5 would have lost s in the heavy consonant groups—unless in  $\delta\iota\epsilon\text{-}\sigma\chi\acute{\iota}\text{-}\sigma\theta\eta$  it was the  $\text{-}\delta$  of the root that was lost. It is true that the proper Greek dialects certify  $\tilde{E}$  in the ending  $\text{-}\theta\eta\upsilon$ , but this means that the vocalism of the  $\acute{\epsilon}\text{-}\mu\acute{\iota}\gamma\eta\upsilon$  type (61) has preponderated. Note parallel Homeric forms like  $\mu\acute{\iota}\gamma\eta/\mu\acute{\iota}\chi\theta\eta$ . As for the etymological character of  $\sigma\theta$  in  $\acute{\epsilon}\text{-}\gamma\upsilon\omega\text{-}\sigma\theta\eta\varsigma$ , it must be judged by the *st* of *nostī* (75) and the  $\sigma\tau$  of  $\acute{a}\text{-}\gamma\upsilon\omega\sigma\tau\omicron\varsigma$  (80).

*Infinitive Complexes with -STHAI/-STHI.*

82. Such complexes come clearly to light in Av. *bərəθe* and *bərəθi* (exx. in §§ 4, 69) from BHRSTHAI/I, with s lost as in Skr. *caturihā-s* '4th' (see AJPh. 33, 398 § 38, noting the haplogy in *sapta-[s]thā-s* '7th'). The TH of *bərəθe* (cf. *ukthā-m* § 80) is certified by the TH of Skr. *bhr'hā-m* 'res divina, sacrum', while in *bhr'ti-s* TH yielded *t* in the group THY (see Fay AJPh. 34, 15 § 42 a). In the Greek infinitive  $\phi\acute{\epsilon}\rho\epsilon\text{-}\sigma\theta\alpha\iota$  (? prius BHERESI, like Lat. *regere*, +STHAI, with haplogistic loss of SI) STH is also certified. The equation of Av. *dastē* 'dare, facere' with  $\theta\acute{\epsilon}\sigma\theta\alpha\iota$  and  $\delta\acute{o}\sigma\theta\alpha\iota$  is perfect, cf. OBulg. *plesti*, 77. I derive from participials DHES and DOS +STHAI. Of these, DOS appears in the Vedic compound (vocative) *dravino-das* 'bonum\_dans' with prius entirely like Lat. *facinus* in formation (85); cf. also nom. sg. *go-da-s* 'bovi-dans' in Manu. From such vocative use DOS became, by omission of the copula, an imperative; cf. Lat. *macte virtute (esto)*. These forms DOS and DHES are also certified in the Skr. imperatives *dehī* and *dhehī*, wherein (D)Hf is an optional or movable suffix omitted in  $\delta\acute{o}s$  and  $\theta\acute{\epsilon}s$ . The Skr. 2d pl.

<sup>1</sup>Is it to the  $\tilde{a}$  of the injunctive STHĀS that we owe the vocalism of *erās*, *-bās* (but see 69)?



mid. impv. *dāddhvam* shows the normal Sanskrit treatment of D(H)DH. Note the perfect equation (*F* lost in the heavy consonant group) between *θείσθαι* and Skr. *dhāddhvam*. It was because of *θείσθαι* that *θείσθαι*, as well as some other *σθ* forms like *φέρεσθε* (69), was allocated to "middle" function. As for the impv. ending *-dhvam*, its *dhv* is to be connected with the *du* of Lat. *per-duis, creduas*, while its *am* is an accusative ending like the ending of *λάβων* (72 fn.). The restriction of the form to the 2d plural was due to pronoun forms like Skr. *vām* (really a precasual form, see § 50) : Lat. *vos*. It may be that *dhvam* is to be identified ultimately with the Plautine optional *-dum* with the imperative.

*The middle person-ending -ME-DHI/-ME-(S)THA.*

83. The IE. 1st pl. middle is represented by *-μεθα/-μείσθα* : Skr. *-mahi*, Av. *-maidī*. Here we have, I think, two different combinations of the pronominal element *me* (: 1st sg. *-MI*) + *DHI*, the optional ending of the 2d sg. imperative just mentioned; while in the Greek endings we have *ME* + (S)THA, 2d sg. ending of *οἶσθα* etc. (75). Thus we better classify the facts than by calling the *σ* of *-μεσθα* a contribution from 2d plural in *-εσθε*.

*The nasal conjugations: complexes with SNĒI 'ducere'.*

84. For some years past I have been studying tautological combinations and have especially applied this principle to the explanation of the nasal verb flexion (cf. AJPh. 25, 369-389; 26, 172-203; 26, 377-408; also Class. Rev. 20, 253 sq.; Cl. Quart. 3, 272 sq.; KZ. 42, 152 [*kṛṇōti*]; 45, 112 [Chinese tautological compounds]; AJPh. 32, 408 [Hungarian examples]; add Malay synonym pairs of loanwords, see Misteli l. c. 2, 237<sup>1</sup>). For the nasal verbs I supposed e. g. that Skr. *badhnāti* meant 'tie-binds' or the like. Note the pretty case of *δεικ-νῦ-μι* with *δεικ* = monstrator and *-νῦ(ς)*<sup>1</sup> = nutans.

85. By the examination of the Sanskrit root *nī* we may learn how (S)NĒI 'ducere, trahere' became fitted for use as a somewhat general auxiliary verb. This Sanskrit root means 'ducere, ziehen, trahere', and the intransitive senses of 'ziehen' (as to which see Paul Wbch.) are not extant in Sanskrit. But *apa* + *nī* = devestir and *snāyati* = vestire, i. e. 'to draw on' (clothes), cf. Eng. *drawers* of the nether undergarments. Outside of Indo-Iranian the specialization of sense found in *ducentes* subtegmina or *trahere* lanam (vel-

<sup>1</sup> Loss of *σ* in *-νῦ(σ)τι* and *-νῦ(σ)μι* as in BHERE(S)TI (70).

lera), *trāma* 'woof', prevailed and thus we reach the widely disseminated European root SNĒI/SNŌU 'to spin, weave' etc.; cf. *νεί νήματα* (Hdt.) with *deducit* aranea filum (Ovid). In Greek further specializations are found in *νῆειν ξύλα* = 'to draw (whence pile) logs' (cf. Bacch. 3, 33 *νῆσσο* = "rogum exstruendum curavit"); [cf. *στόρυμμα* 'I strew-pile']; *χέρεσσι, νέων* = *pulling* (i. e. swimming) with his hands, cf. Skr. *nāvam* (with  $\bar{A}$ ,<sup>1</sup> though the object is cognate) *nayati* = *navem ducere* (i. e. to *pull*) and Germ. *ziehen* = 'to pull (a boat), *remis ducere*'; *νέομαι* (Homeric *νεύμαι*) 'eo' (intransitive by ellipsis of the reflexive object, cf. Lat. *ago*, Germ. *ziehen* from *sich ziehen*). Gr. *νείαι νείραι* (Odyssey): Lat. *nīs* 'nes' (Festus) are root flexion forms with the original diphthong, cf. Skr. *ne-mī-s* 'tire', i. e. 'inductum'. In Sanskrit *nī* was specially used for bringing to sacrifice (cf. the OLat. ritual question *agon*) attended by song (note *nītha*); cf. the root *nāth-* (from SNĒ[S]TH § 76) 'to keep sacrificing', whence 'to beseech, precari', with Umbr. impv. *per-snimu* 'precator';<sup>2</sup> *persnīs* 'precatus' from PERK<sup>^</sup> 'precans' + SNĪTOS 'aditus, adductus' (deponentially taken): Skr. [s]*nīlā* 'ducta (in matrimonium)'.<sup>3</sup> The parallelism of the Skr. *nā* and *no* verb classes easily explains itself on the basis of composition with the root SNĒI/SNŌU. In *ζών-νυμι* and *ἔν-νυμι* we have the object nouns *ζωσ<sup>^</sup>* and *Fes<sup>^</sup> + σνῦ*: Skr. *snāyati* 'vestit'. For the noun object prius see Fay AJPh. 32, 408. In compounds like Skr. *vli-nāti* 'crushes': Lat. *vellit* 'pulls, plucks' the prius was *vli* (cf. Av. *fra-xšni* § 81) 'ad\_premendum'. In a verb like this, while we may still feel *nā/nī* as tautological, yet its force is scarcely more than the force of an auxiliary verb, ad\_premendum ducit = premit. The participle of *vli* is *vlinā-s*; cf. Lat. *vellus* 'fleece', tautological from WEL + NOS, NOS meaning 'tractum' (cf. in Tibullus *tracta* = flocks of wool). This word NOS 'tractum', in the generalized sense of 'possessio' had a rich extension in the IE. tongues in such words as Skr. *āp-nas-*,

<sup>1</sup> This  $\bar{A}$  will be due to levelling between \*NĒUS and its gen. NĀW-OS.

<sup>2</sup> Or better define the verb according to 77 fn. by 'sortes (i. e. *preces* = spillikins) ducere'.

<sup>3</sup> In Skr. *sañ-rāj-nī* 'empress' we have in *-nī* either a cognate of *nīlā* 'nupta' or else -GNĪ, another flexion form of *gnā* (: *γυνή*) 'wife' (of a god). For *-nī* we may cite *πότνια πότνια* (? originally 'potens\_ductrix'), but Lat. *regīna* looks like RĒGNĪ combined with RĒGNĀ, whence RĒG[N]I-NA, while the *NI* in Skr. *pātnī* may have come proethnically by irradiation from RĒGNĪ. On the basis of *regnum*, however, I decide for *NI* rather than *GNĪ*, for I see in the -NO- of *regnum* a derivative of *NEI* 'trabere' with the sense of Lat. *tractus* = domain. In Lat. *venenum* 'poison'—but doubtless first a love-potion only—we have the compound *venes* + *sno-m*, clearly = 'amorem ducens'.

*drāvi-nas*, ἀφενος, κτήνεια, Lat. *fenus*, *pignus* (further exx. in Meillet Mém. Soc. Ling. 15, 256), most of which either mean 'bona' or connote forms of property. It was from words like *ulīna-s* that the -NO-suffix of past participles was derived. As for Skr. *drāvīnas-*, its root will be found in *δραίνεις* (65), its type in *facinus*.

*The buy-and-sell group; SNĒI and EI.*

86. The formulaic usage of *nī* in Sanskrit is illustrated by the example *vi-kṛayaṁ nayati* 'mercatum ducit, vendit' (cf. *vi-kṛtiṁ nayati* = ad\_mutationem, sc. animi, ducit). Similarly *krī-ṅā-ti* 'buys' is made up of a locatival *krī* 'mercatum' (supine) + *nāti* 'ducit'. This leads to the interpretation of (έ)πριάμ-ην by PRI<sup>Y</sup>MM<sup>^</sup> + Ē(I)M; cf. with passive sense Lat. *vēn(um)ibat*: ὠν<sup>^</sup>έμαι, which comes from a locatival prius (cf. the Avestan noun locatives in § 4) *Fωνει<sup>^</sup> + έ(γ)ομαι*. In *πρίη, πρίηται* (subjunctives) we have a dat.-loc. infinitive *πρίη<sup>^</sup>* with copula omitted in 2d singular but represented by -Ē(I)TAI in the 3d. In (έ)-φέρόμ-ην etc. we have an infinitive BHEROM + Ē(I)M (cf. on έμίγ-ης 61) 'ibam' or Ē(S)M 'eram'. True, ā is certified by the proper dialects, but its vowel color will be due to competing forms in -(σ)θην, before the analogy of the -ην aorists was submitted to (81). There was also a permanent competition of Ā and Ē in ἴστην and έτίθην.

*Sanskrit-Latin gerundials from infinitive + NYO.*

87. The Sanskrit gerundives in -*enya-* have an infinitive prius + -NYO- '(se) ducens, ziehend'. Thus note in RV. 10, 120, 5 *prapāśyanto yudhē<sup>^</sup>nyāni bhūri* = prospicientes certamini\_ducentia (prize of combat, Griffith) multa and the common form *vāre<sup>^</sup>nya-s* (note the conflicting accent and gradation of *yudhē<sup>^</sup>* and *vāre<sup>^</sup>*) = ad\_optionem [se] ducens'. In the gerundives of the type of *karaṅṅīya-s* 'faciendus' I recognize *karam<sup>^</sup>*, weakened to *karm<sup>^</sup>* before -*ṅīya-* 'ad factionem (se) ducens'. The ultimate gerundial sense will have come from the infinitive prius (see e. g. Speyer VSS. 216 c; cf. also Bartholomae Wbch. s. v. *ah* 277, 3). Names like Lat. *Cupiennius Herennius* (cognate with Umbr. *heri* 'vult') look, Etruscan influence apart, to be of this formative type. On -*nm-* from -*MN-* in Latin see Fay Cl. Quart. 4, 87 sq. There is also nothing in the Italic dialects (v. exx. in Von Planta Gram. 1, 201 sq.) to prove MN from any of the *mn* combinations to be found there.

## The agential suffix -TĒR/TŪR.

88. When Prellwitz, Wbch. s. v. *ρείρα*, derives the agent suffix TOR from the root TER he is substantially right. It is a pity that he did not go further, however, and compare for its generalized sense of 'facere' O Bulg. *tvoriti* : *tvorü* 'creatura, forma', which shows that the root is to be written TWER/TER. The strongest sort of evidence for the antiquity of the sense 'facere' results from the comparison of Slavic *po-tvorü* 'magic' with Skr. *kṛ-tvarī-s*<sup>1</sup> (AV.) 'sage'. After Jevons' discussion (see Anthropology and the Classics p. 98) of verbs of 'doing' in the sense of doing magic, the Whitney-Lanman note on *kṛ-tvar-īs* (AV. 4, 18, 1), viz. that *kṛtvarīs* borrows a special sense from *kṛtyā* 'magic', merely attests Professor Lanman's unconscious recognition of a first-class instance of tautological composition between the two roots of 'doing', KER and TWER—doubling perhaps their effect as what the American Indians would have called "medicine". In *kṛtvarīs* we find the tertium comparationis necessary to establish the correlation of -tor in Lat. *cultor* with -tura in *cultura* (with *u* from *wē*, see Fay AJPh. 34, 16 § 44 fn.).

89. Now Sanskrit also certifies to a stem-grade -tūr- for the agent suffix, to-wit in *yantūr-am* ("strong" acc. sg.) 'datorem'; cf. also the neuter *sthātūr* 'stativus': *sthātār-* 'auriga'. Also in every agent noun genitive in -tur we have testimony to -TUR-+ the genitive ending -[E]S (72). In the large group of adjectives in -tur- (nom. -tūr), like *aplūr-*, lit. 'opus faciens' but = 'operosus', we have further testimony to the "stem" -TUR- : -TOR/-TWER.<sup>2</sup>

<sup>1</sup> I note in passing that masc. *kṛtvan-* 'faciens' exhibits dissimilation of *r-r* to *r-n* and suggests a source for the N/R variation found in *πίλον*, fem. *πίερα*, etc.

<sup>2</sup> The ending -TUR-O- appears in Lat. *satur* 'full', with sequel meaning from 'eater, having eaten'. All the Plautine usage reveals the connotation of 'gormandizing', e. g. Cp. 812, *satur* homost, *habet profecto in ventre confidentiam*; Poen. 804, *extis sum satur factus probe*; Mc. 750, *non estis cenaturi? : iam saturi sumus*. The Σάτυροι, like their big-bellied leader Σειληνός, were probably merely *saturi*. Then the Doric title of Τίτυροι described the dancing satyrs, and is to be derived from the root T(W)ĒI : Lat. *quatio* (see Fay IF. 32); cf. Eng. *shake a leg* = dance. The root of *satur* was PšōU (though cited by Hirt ap. Walde s. v. *satur* as sōU-T), as Av. *fšav* 'fett machen', *fšao-nay-* 'feist' show, though the initial P was lost prior to Greek ἄδην. To the same root belongs Lat. *sāgna* 'fattening', with a secondary short ā (see Fay IF. 26, 32 and cf. Pedersen vglch. Kelt. Gram. § 126, 3, who notes the Latin shortening of pretonic ā in early Celtic loanwords). In *sagina* we have an infin. prius PSAI + *agīna*, cognate with ἄγνέω (i. e. infin. AGĪ + NEYO : Skr. *ndyati*, cf. § 85), especially used of driving cattle, while Av. *fšav* explicitly means 'saginare'.

*The Latin Desideratives in -turio.*

90. The nominatives in *-tur* form a precious testimony for the Latin desideratives. Thus *esurio* is from \**ēsuri*, parallel with *esor* 'eater', and *parturio* is from a feminine \**parturi* + *io*; cf. Skr. *iyati*, sporadic for *áyati* 'it'. Note the syllabic reduction in \**pār(i)tūri* as compared with *pāritūra*. Aeolic *μάρτυρ* 'witness' (agent noun to the root in Lat. *memorat*, see § 58) gives further certification of *-TUR* and *μαρτυρῆω* is nothing but *μάρτυρ* followed by the Greek flexion of *ΕΥΟ* corresponding to the type of Skr. *áyati* (though *ΕΣΟ* is phonetically admissible). The prius in Lat. *ligúrio* was the pf. ptc. (*ū* reduced from *wō*), unreduplicated like *εἰδώς*, but otherwise corresponding to Skr. *ririḥwāms*.

*Latin centurio.*

91. Applying the above analysis to *centurio* and writing a start-form \**cent[um-*t*]urio* 'hundred-leader', we get a military term suggestive of Skr. *yantār* 'marshal', *sthātār* 'auriga'; cf. the compounds *pṛtsu-tūr* 'in proeliis vincens', *viṣva-tūr* 'omnia vincens', *su-pṛa-tūr* 'bene-pro-festinans', *ratha-tūr* 'bigas-celebrans', *vṛtra-tūr* 'hostes-superans'. These words can leave no doubt of the belongings of *τυρ-* in *τύρ-αυγος*.<sup>1</sup> In *centum-turio* the posterius *-turion-* is a tautological complex of *TUR-* ('vordringend zum kampf' in RV.) + *ĪVEN-* (cf. Av. *ay-* in military usage, Bartholomae Wbch. 148, 4), nearly related to the "comparative" *tariyas-* 'durchdringend' (cf. on the *Ἰνεπίων*: Lat. *superior* type, Fay AJPh. 31, 424) and also to *turīya-* of the '4th' or "captain" (i. e. "princeps") finger (l. c. p. 426 § 63; 417 § 36).

*The Latin passive; quispiam sentences.*

92. After the demonstration of the grade *-TUR-* to the agent suffix *-TÖR-* the last obstacle is removed against the explanation of the Latin deponent-passive: *hoc mihi dator* (sc. *es sit*) came to be understood, thanks to the ellipsis, as *hoc mihi sit datum*. The same interpretation as a passive was also given to *hoc mihi datur*

<sup>1</sup> I see in *τύραυγος* a compound, prius *TURM*, acc. sg. of an action noun meaning something like 'raid'; cf. Skr. *tūr* quasi 'raider', *tūrī-s* 'überlegene kraft', *tūr-* 'celeritas'. The posterius was *-SNO-* 'dux'; cf. *SNĒI* 'ducere', § 85. We have the same posterius in *κοίρα-[σ]νος*, which precisely corresponds with Germ. 'heerzog'. It is found again in Lat. *satellites* 'attendants on a king'. Here the prius is the agent noun *KSA-TEL* (see on the L-form of the *TER* suffix, Brugmann Gr.<sup>2</sup> 2, I § 247) 'ruler': Skr. *ḥyatrid-m* 'regnum', first compounded with (s)NO- 'dux' (cf. the modern title of *duke*); then \**satellos* 'regidux' was affected by suffixal irradiation from *equites* and the like. Or *SNES-*: *SNĒI-*: Skr. *dhas*: *dhā-*?

(sc. *est*)—wherein *datur* is like *esur* in *esurio* (90). Words like *hortatur*, *hortator* (cf. also on *proditor*) remained in the voice of *auctor est* (5). In the Italic dialects (forms most conveniently collected in Dottin op. cit. 36 sq.) the 3d sg. and plur. forms end in *-tir*, i. e. the *-TĒR* of *δοτήρ*; in *-tur*, i. e. the *-TŌR* of *datōr*; in *-ter*, perhaps vocative to the *-TĒR* nominative; and in *-tar*, by samprasāraṇa from *-TUR*, which was Mommsen's explanation for the *-ter* forms (Unterrital. Dial. 235, ap. Zimmer in KZ. 30, 277). In Umbrian the 3d sg. *ferar* will have been developed from 3d sg. act. *\*fera* (cf. *dirsa*, *teŕa*) precisely as in Latin *feror* was developed from *fero*. The Umbrian 3d pl. futures (perfect) *benuso*, *couortuso* are plural nominatives, with loss of final *-r*, from the participles in *-us* (74); cf. the *-ES-* stem nominatives *tuderor*/*tudero*. The retained *-s-* of *benuso* will be due to the retained *-s* of *benus*: *benust* (73). Thus the forms like *benuso[r]* are precisely equivalent to *\*zyuṣ[as]* invoked above to explain Skr. *īyūs* 'ierunt'. In Umbr. *ier* (not 'ibitur' but 'itum est', see the instance in Dottin 39) we have a precise equation with Av. *\*iyar*<sup>2</sup> (72)—or with Skr. *īyūs*. It is proper to mention here that Zimmer l. c. rendered *ier* by 'on va' (3d pl. active).

93. Into the Celtic forms I cannot explicitly go, but in his discussion of the Italo-Celtic deponent (KZ. 30, 224 sq.) Zimmer may be held to have demonstrated that this construction in Celtic properly belongs under the rubric of *quispiam*-sentences (mansätze), cf. his citation (p. 255) from O'Donovan's Irish Grammar: "For this reason some Irish scholars have considered the passive Irish verb to be a form of the active verb, expressing the action in an indefinite manner, as *buailtear me*, i. e. some person or persons, thing or things, strikes or strike me". What is that but this, that *hoc mihi datur* started with the sense 'hoc mihi quispiam dator est'?

#### *The Latin Infinitive in -IER.*

94. Over fifteen years ago in the Classical Review I offered an explanation of the old infinitives in *-ier* as containing in *-ie-* the present system suffix *-(I)YE-* and in *-r* an apocopated *-re*. To be sure of representing my actual meaning I quote a couple of sentences: "I propose to take the *-ie-* verbs as a starting-point, and so explain *de-ripiet*' (Men. 1006) as an abbreviated infinitive to a *-ie-* stem. Thus *-rapier*, and *rapere* would belong, the first to a *-ie-* stem, the second to an *-e-* stem. It is common enough in Sanskrit for a root to have both *-ya-* and *-a-* present systems, and this state

of things appears in Latin also, at least with the verb *venio* (cf. Brix, Trin. 41)".

95. This passage has been curiously misunderstood by Stolz, who thus criticises it (Lat. Gram.<sup>4</sup> p. 297): "Ganz ungerechtfertigt ist Fay's annahme eines Inf. *de-ripiet* aus \**de-ripiere* von einem *ie*-stamme (*rapere* soll der eines *e*-stammes sein!), vgl. . . . (IFA. 8, 209)".

96. Now I was trying to make a statement that would be clear to classical scholars not Sanskritists and impatient of comparative grammar; and having mentioned previously the pair *bibere/biber'*: *bibo* I thought that explaining *de-ripiet'*: *deripio* would be the clearest way to state my point; and in speaking of the -IE- and -E- stems I had predominantly in view the Latin flexional system as stated in the non-comparative Lat. grammars. I looked for a scholar of Stolz's specialistic knowledge to interpret my meaning in the terms of his own science, but I see that I must have been enigmatic.

97. What I supposed then I suppose now, viz. that *-ripiet'* came from a verbal noun RA\*PYES- and that *rapere* came from a verbal noun RA\*PES-. In Indo-Iranian there is no lack of such nouns in -YES- in infinitival function. Macdonnell's Vedic Grammar § 585, 1 gives *puşyás-e* 'to thrive', *sáhyas-e* 'to conquer', both in most obvious relation to their present systems, viz.: *puşyati* (with secondary accent for \**puşyáti*) and *sáhyate* (classical passive; cf. *sahyāmi*). Note also *dhāyas-e* 'to cherish' (: *dhāyati* 'suckles'), *bhiyás-e* 'to fear' (: *bhāyate* 'fears'), *ḡriyás-e* 'to be resplendent'. In the Avesta -ES- stems occur in a suffixless locative, and Bartholomae (Gr. Iran. Phil. § 260 a), after citing the suffixless Gāthic *avo* 'juvare', adds: "ferner aus praesensstämmen: Gāthic *varəzyo* 'zu wirken'", with a cross-reference to the *ya*-class presents. For a locative ending in -ESI cf. Av. *pairi-tačahi* 'circumcurrere'. Let not Professor Stolz imagine that I am concerned whether the name infinitive be admitted for these Avestan forms or not. I am just as well content to call them verbal nouns. But I insist on the fact that both Sanskrit and Avestan verbal nouns attest the IE. forms dat. -YES-AI (? -EI), loc. -YES/-YES-I, evidently in some sort of relation to verbs with -(I)YE- flexion; and that these forms justify me in writing a pre-Latin *rapyes/rapyesi*, whence the form *-ripiet'*. That its *-r* ending caused it to be interpreted as a passive, the infinitive being itself substantially of either voice at will (65 fn.), was noted sufficiently in my original paper. I may here add that *rapitē-bam* may be derived from *rapyes~fam* (but see § 43).

*The Latin posterius -īvos.*

98. In *nocīvus* (or *internecīvus*) I see an infinitive prius  $\text{NO}\bar{\text{K}}\text{-EI} + (\text{E})\bar{\text{I}}\text{-VOS}$ , the pf. ptc. of 'ire' (72), if not  $\text{EIVO-S}$ : Skr. *ēva-s* 'festinans'. We have a comparable formation in Lith. *neszē̃yas* 'porter', i. e. 'portare\_jens'. In the forms like *nocuus* the posterius had the due grade *-oivos*. This is also the way to account for the *u* in *nocuī* (see on *noc̃eo* § 56), which will have had for its posterius in the complex not  $*\bar{\text{I}}\text{YAI}$  (72), but a correctly graded perfect  $*\text{OYAI}$ , like *oīda*. But it may be that *nociuos* is made up from a prius *nocī* 'nocere' + *wos*, quasi 'manens' (cf. § 40 fn.). If we assume a variant dissimilation of successive ST groups the morphological correlation of Lat. *statiuus* with the Skr. pf. ptc. *tasthivās* presents little difficulty. With the *i* of *statiuos* cf. the *i* of Vedic (unreduplicated) *ṣvās-ivas-* 'snorting' (? ∪ - ∪ from ∪ ∪ ∪). In *intempes(s)tiuos* the posterius is  $-\text{STH}\bar{\text{I}}\text{WOS} : \text{STH}\bar{\text{A}}\text{I}$  (cf. Fay AJPh. 33, 378, 4 sq.)

## APPENDIX ON NOUN FLEXION.

99. Analogous to the complexes that led up to thematic conjugation were complexes leading to thematic declension. Declension, like conjugation, consisted in the allocation of the infinitivals, suffixless and diphthongal, to the expression of the case relations. The cases were infinitives, but the infinitives were pre-casual, general locals, as in Bantu (50). The subsequent infinitive was an interjection, a call, a summons, an imperative. Take e. g. *āyei* as a summons "ad agendum", like the cry "ad arma". The development of the sense of leader, *dux*, *āye*, Skr. *nāya* (with  $-\text{E}$  for  $-\text{EI}$  by § 1, 1), becomes perfectly transparent. It is all of record in Trimalchio's cry of *Carpe, carpe* (Petronius 36). [The gradual loss of the infinitivals, though not susceptible to proof, may perhaps be admitted. Note the paucity of infinitives in Classical Sanskrit as compared with the wealth of those formations in Vedic Sanskrit and Avestan. Herein Latin, say, runs with Classical Sanskrit. The elimination of the IE. free infinitives must have resulted from their gradual fixation first in formulaic complexes, then in grammatical forms.]

100. These calls with the diphthongs in  $-\bar{\text{ā}}\text{i}$ ,  $-\bar{\text{ē}}\text{i}$ , perhaps  $-\bar{\text{ō}}\text{i}$  (see § 103), formed the basis of thematic inflection. In the Indo-Iranian group  $-\text{AI}$  is preserved in the vocative of the  $-\bar{\text{a}}$  declension, *kānye* : *νύμφα* (see § 1, 1), possibly also in *γύναι*. Note besides the *ā* of *δέσποτα*, *agricola*, *collēga*, nouns earlier in type than the  $\bar{\text{a}}$ -gender; cf., with  $\bar{\text{ā}}\text{i}$  or  $\bar{\text{ō}}\text{i}$  diphthong, Lith. *tē̃vai* 'pater'. Account is also to be taken



of the phenomenon known in Sanskrit grammar as *pluti* (cf. Wackernagel ai. Gram. I §§ 255-257), the prolongation i. e. of vocalical  $\bar{a}$  to  $\bar{a}3a$ , of vocalical  $\bar{e}$  to  $\bar{e}3ya/\bar{e}3i$ . I interpret  $\bar{a}3a$  to mean the protraction of  $\bar{e}i$ .

101. The calling forms in  $\bar{a}i$ ,  $\bar{e}i/\bar{o}i$  account at once for a number of the case forms. Taking *\*Musae* as a typical vocative, in a sentence like *tibi \*Musae donum est* we account for the interpretation as a dative; while *tibi \*Musazi factum est* reveals how the instrumental arose. When a noun like  $\gamma\eta$  had passed from the sense of 'bearer' to the sense of 'earth', Terra, in a sentence like *tibi, \*Terrae, vinum fundimus*, we realize how the vocative became a dative-local. With a "locative" infinitival like  $\chi\epsilon\iota\bar{p}\text{-}i$ , originally = 'ad\_prensandum,'<sup>1</sup> the functions of instrumental dative locative remained undifferentiated.

102. The summons in the diphthong infinitive, let us say *\*carpei/ \*carpoi* 'ad carpendum', when addressed to several, became a plural as in Greek  $\text{-oi}$ , or a dual as in Skr. feminine *kánye*, neut. *phále*; and these diphthong forms are earlier than the  $\bar{o}s$   $\bar{e}s$  plural nominatives. In the name  $\kappa\lambda\upsilon\tau\alpha\text{-}\mu\acute{\eta}\sigma\tau\eta\eta$  'famosa\_comminiscens' we have in  $\kappa\lambda\upsilon\tau\alpha$  one of the early diphthong case forms, whence the later sandhi form  $\kappa\lambda\upsilon\tau\acute{\alpha}$  (see § 1, 1), neuter plural.

103. From the precasual cries in  $\bar{a}i$  came the  $\bar{a}$  declension nouns like  $\rho\acute{o}\eta$  'flumen', for which Collitz (BB. 29, 81 sq.) has already rendered probable, in my opinion, the stem-form  $\bar{a}i$  (cf. the reduction feminine byforms in  $\bar{i}$ , noting for this vowel stage Kretschmer as cited in §59). From cries in  $\bar{o}i$ , the vocatives like  $\Pi\epsilon\iota\theta\omega\acute{i}$  and  $\text{'H}\chi\omega\acute{i}$ . came the nouns in  $\bar{\omega}$  (cf. J. Schmidt KZ. 27, 369 sq.); and from  $\bar{e}i$  cries such nouns as Lat. *fidēs*, *caedēs*. The  $\bar{i}$  stems, known in Bartholomae's grammatical works as  $\bar{a}y$  stems, may be based on locatives in  $\bar{i}$ , unless  $\bar{i}s$  is pronominal like  $e\bar{s}/o\bar{s}$  (104).

104. The vocative must have long done duty as nominative also, but in the "vowel" declensions a nominative  $\bar{s}$  arose, I surmise, as follows. After an original vocative like  $\text{POTEI/POTOI}$  'domine' stood the demonstrative  $e\bar{s}$ , as found in  $e\bar{s}mi$  (48), whence by subsequent fusion  $\text{POTEYES}$ . A cry of the briefest type, e. g.  $\widehat{GHER}$  "ad prensandum", would have yielded  $\widehat{GHER}\text{-}e\bar{s}$ , as in Skr. *harás* 'greifer, destroyer' but *\*hára-s* 'griff'. From  $\widehat{GHER}\text{-}e\bar{s}$   $\widehat{GHEROS}$  arose by deflection and finally, after  $\bar{GHEROS}$  came to be widely

<sup>1</sup> Cf. OLat. *vola* 'hand', i. e. 'ad prensandum': the root of Skr. *vlínāti* (85).

used in composition, ĠHOROS. Two types now existed, a calling form ĠHER with a nominative ĠHER-ES beside it, and a calling form ĠHER-ĒI with a nominative ĠHEREY-ES. Of these, ĠHER-ES/ĠHOROS was finally allocated to the singular and ĠHEREY-ES to the plural, the one coming to belong, in course of time, to the -o declension, the other to the -i declension. To the latter was given a nom. sg. in -IS, wherein the demonstrative IS, parallel with ES, is perhaps to be recognized. The well-known interchange of the -o and -i stems in Latin, often distributed between the simplex and compound, may perhaps shed a glimmer of evidence into this glottogenic gloom.

105. The proof that the demonstrative ES came to be attached to a cry and converted it to a nominative can certainly not be rendered in the present state of our knowledge, but it is at least worthy of note that in pre-Semitic scholars have analyzed their extant nominatives in the same way, writing as a type, by way of explanation of the -U nominatives, \*malik-hū 'rex ille', see Brockelmann l. c. § 117 a. In Indo-European -s, and not -ES, came to be abstracted as the ending of the nom. sg. This I take to have been because, when ĠHER-ES was still spoken, ĠHERE, the samdhi form of ĠHEREI, came to be associated with ĠHER-ES as its vocative and, the difference being an -s, this was seized upon as the nominative formant.

106. As for the genitive "suffixes"<sup>1</sup> -ES (consonant) and -SO/-SYO (o-stems), it may be noted that SO is formally identical with the IE. article, (n. sg. m.) and ES is also a demonstrable nominative (48). In the oldest Sanskrit we find *syás* alongside of *sá(s)*. I suggest that a late Indo-European who said RĒĠES DOMOS was echoing an ancestor whose thought was RĒĠ ES DOMOS 'king, the house'. The possessive relative was at first inferential merely, as in French in *la porte Saint Martin* (cf. Misteli op. cit. 2, p. 96). A still later Indo-European who said NEROS(Y)O DOMOS echoed ancestral NERO S(Y)O DOMO(S) 'man, the house'. Like the so-called stems used in composition, NERO and S(Y)O are forms prior to the adoption of nominative -S (104).

<sup>1</sup> In view of AJPh. 34, 237, this paragraph is respectfully offered for the consideration of Professor Gildersleeve.

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a. Are either participals (agent nouns) or infinitives (action nouns); uncertainty between these as in *κατα-κταν<sup>έουσι</sup>* and *μεν<sup>έω</sup>* 17; infin., not ptc., in Lat. *ama-bo* 40. These infinitives are "bases" 55 fn.

*Participial prius.*

b. *Gradation* in *priora*: *prius* a vriddhied nom. sg. in *-s*, as in *δεικ<sup>ς</sup>*, in Lat. *dix<sup>is</sup>* = *dicens<sup>sis</sup>*, *dux<sup>is</sup>* = *ducens<sup>sis</sup>*, etc., 14, 21, 24; gunated in Skr. *dveṣ<sup>ḥ</sup>* 'hating' 67; reduced to zero in Skr. *dikṣ<sup>ḥ</sup>* *dukṣ<sup>ḥ</sup>* Lat. *caps<sup>ḥ</sup>* *raps<sup>ḥ</sup>* 12–14; of *E*-grade in *rēgs<sup>ḥ</sup>*, *ḍ*-grade in *cleps<sup>ḥ</sup>* 10, 12; of deflected or *o*-grade in *moneo* 56, *doceo* 59, etc.

c. *Prius* an *accusative* in Skr. *ḥrad-dhe* 'cor dare', in Lat. *au(s)-dī* = *aures<sup>ḥ</sup>* dare; cf. Vedic *akṣi-dan* = *oculos detis* 38; in *ζών-νυμι* and *έν-νυμι* 85.

d. (?) *Prius* a *nom. without -s* in Skr. *aḥ-* 34, *θεν<sup>ḥ</sup>* *έει* 37, *φέρ<sup>ḥ</sup>* *εῖς* 57, 69; *pet-* in Lat. *peto* 66.

e. *Prius* a *nom. in -s(s)* in Lat. *quae<sup>ḥ</sup>* 66.

f. *Prius* a *mute stem nom.* in *-s*, type *έπιτεξ<sup>ḥ</sup>* *έουσα* 67; hence came by haplology the root conjugation of verbs, see § 67; Skr. *rdṣ<sup>ḥ</sup>* *atī*: *άλέξει* 67; *rex<sup>erit</sup>* 7–8, *lux<sup>erit</sup>* 9; in combination with *STHO/E* (76 sq.) *TEKS* in Lat. *texo*, the *texo-necto* group 77; [reduplicated mute stem *prius*, Skr. *cikits<sup>ḥ</sup>* 'monstrans', cf. *pīpas<sup>ḥ</sup>* 'bibens' 28].

g. Prius a *nom. in -s* from a root ending in a vowel, Greek βης; hence came, particularly, the SKO/E conjugation 26-27, 52; GWOS in Skr. *gdachati*: βάσκε, δός[ES]κον, φάς[ES]κε; Lat. *pās*[es]co 26; *gnōs*[stī] 75; cf., with mute stem, *prks* in Skr. *prkchati* 52; reduplicated in *didaks*[ES]κω 52.

h. Prius a *liquid stem āyeps* > *āyep* 17, Lat. *vels* vers 12.

i. Prius an -ES stem, 1st of agt. noun, *ψευδής*[ES]ω; 2d of action noun, *μελής*[ES]ω 18; (?) *tegēs* bam 43.

j. Prius an -I stem (nom. -IS) in Skr. (a)*vedis*[ES]am, ἦδ[ES]ε(σ)α, Lat. *dediss* es 25; *ēpīs*[ES]κω 26-27.

k. Prius an adj. -O stem (nom. -OS) in Lat. *crud*[os]escit *luc*[os]escit 27; with feminine in -Ā in Skr. (subj.) *bharāsi* 51, 69, cf. *vesperascit* 27; (?) prius a neuter BHER 69.

l. Prius an agent noun in -TUR (without -s) in *μαρτυρέω* 18, 90, Lat. *ēsur*io, feminine in -TURĪ in Lat. *parturio* 90; cf. agt. noun in -TŌR in Skr. *dātāsmi* 11, Lat. *auctor sum*, *proditor* 5.

m. *Number of the prius*: singular ousts plural in Skr. *dātāsmas* 'daturi sumus' 11, in Lat. *rex*erimus 15 sq., 23.

n. Singular varies with plural in *leg*[es]erimus, interchanging with -*lex*erimus 11.

o. Singular identical with plural in root nouns with long vowel, e. g. in the βήσω type 16.

p. Plural prius in Lat. *expetessunt* 67-69 *kwes*[ES]imos 59; *ἀγγελ[ES]έ(σ)ουσι, μεν[ES]* 17.

*Infinitival prius.*

q. General: on the suffixless locative 50 sq.; its gradual loss 99.

r. Monosyllables WEM 'vomere' 59, *θεν* 38, *μένει* 17; *θαν*οῦμαι 27, *κατα*-*κταν* 17, 27; Skr. *vl*nāi 85, cf. Av. *fra-xšmī* 81; Skr. *dāi* in *dā-syati* 'dabit' 39; *sthāi* in Lat. *stābo* 40 *gnōi* in *nōsti* 75.

s. Dissyllables: (Vedic) in -i 37, *duhi* 34, *aḥ(ē)* in *aḥimahi* 34, *bravī* in *bravītu* 60; *naḥi*ḥyati *hani*ḥyati 37; *vadhi*ḥṣa 'caedatis' 25; *vart(i)syati* 39;—with a diphthong, *ισται*ḥτην 61, *φερει*[EI]σι 57, *μυ*[EI] in *μύγη, μύγειν* 61; Lat. *audī* 38, 40, \**ad*-*ciyei* in *acciebo* 40, \**pacei* and \**proficei* in *paciscor profisciscor* 27, \**sciyei* (or \**sciyi*?) in *scibit* 40, \**tegei* in *tegebat* (?) 43; Balto-Slavic *vidai* (or -oi) in O Bulg. *habdis* 55;—in -OM in (ē)φερόμεν 86; in -ām 65; in -(E)s-I in Skr. *han*[as]iḥyati (?) 37, *dā*[sī] syati 39; (ē)γνώ[si]σθης 81.

G. ELLIPTIC FORMS.

a. By ellipsis of the auxiliary verbs the priora were themselves felt as finite verb forms 5; ellipsis with Skr. infinitive, Latin historical infinitive, cf. on *agimīni* 6.

b. 1st sg. a dative infin. in -AI, Skr. *duhe* (pres.) Lat. *videi* (pf.): *οἶδα*[I] 57; cf. Skr. *vi-kri-ṇe* 52; 2d sg. in -SAI, Skr. *bhār-as-e* 57; 3d sg. in -EI, Skr. *duhe* (pres.) *οἶδε*[I] (pf). 57. Note also 1st, not 2d sg., *kṛ-ṇe* in Skr. 57; 2d sg. in -*stha*(ē) 75; 2d plural Skr. *vida* is also from an infin. in -AXI, cf. Lat. *agimīni* (6), 57. Similar infinitives are found in Balto-Slavic 2d sg. in -ei 60, in Lat. *noli* 56-57, cf. on 3d sg. *μέλει* 58; long diphthong in *φέρη* 58, *πρήη* 86; form in -(E)s-I in Lat. *fare sequere* 39; in -OM in *λάβον* 82.

c. Ellipsis with participial prius gives Skr. *rāt* 'regit' (regas) 20, 22; Skr. *dātā* = dabit 22; Lat. *proditor* sc. *sit* 5. The Latin passive, see *infra*; pf. ptc. prius as full verb form, Skr. *īyus* 72, Umbr. *benuso* 74, 92.

#### H. The EITI conjugation.<sup>1</sup>

a. Standard paradigm G<sup>WHEN</sup>+ -EIMI EISI EITI, pl. (E)ĪMOS (E)ĪTHE EYONTI/IYONTI 48, 68; (?) cf. *δραλν-εις* 65; also  $\bar{E}(I)M \bar{E}(I)S$  etc. in forms like *ισται-ην* ( $\acute{\epsilon}$ )*μιν-ην* 61, ( $\acute{\epsilon}$ )*φερόμ-ην* 86; cf. *πρίηται* 86, *ισται-ήτην* 61; Skr. -ĀIS -ĀIT endings 62; EYO EYES(I) EYET(I) flexion in *Φεμ-εω ζητέω doceo* 59, *moneo* 56, *queo nequeo* 59; in *amarēs* 61, *dedīsses* 25.

b. Infin. -*iti* in OBulg. *nos-iti* 59; 2d/3d sg. -*is -it* 56, 59, 62; Skr. *abravit* 60; -ĪTO, 3d sg. injunctive and ĪMAHI 1st pl, 34; ĪMOS in *dedimus* 74-75; 2d pl. -ITHA=2d sg. in Skr. *ni-nay-itha* 'duxisti' 75; ptc. -ĪTOS in Lat. *sōpitus*: Skr. *svāpīta-s* 59.

c. -(I)YĒ- forms 31-32, 34, 36; Skr. *dhare-yā-tām* 61; (I)YONTI in Lat. *rudīunt* 59; ptc. stems EYONT- and IYONT- in Greek desideratives *κραν-έοντα ὀψείοντες κακκείοντες*, mid. IYOMENA in *πιομένη* 65; OIYAI in Lat. *noc-ui* 98; *ivi* in Lat. perfect 59, 66, 72 fn.; Lat. fut. *ibit* 40; Lat. desideratives in -*io*, type *esurio parturio* 89; cf. *ligurio* 90; pf. ptc. of EITI in pre-Latin *īwōs-/īyus-*, whence *īyos-/īwus-* 72.

#### I. The ESTI conjugation.

a. Based on living complexes like *ἐπίτεξ ἑούσα* 67; ESMI ES(S)I ESTI forms 48, 51, 69-70; - $\ddot{O}$ (S)MI and - $\ddot{E}$ (S)TI 70-71 (cf. Lith. *ėi < s > te* 'itis' 70). Procope forms 's 'st etc. 31, 51; 2d sg. *eis/eis* 44.

b. ESO ESES(I) ESET(I) flexion in *rex-ero deiš* [ES] $\omega$ /*deišē(σ)ω* Skr. (*a*)*dīkṣ[as]as* 8 sq.; in general 51; in Skr. desideratives 28; pre-Greek ESEIT(I) 38; 1st pl. (E)SOMOS yielded *sumus* and *erimus* 32 fn.; 2d dual Skr. -*stām*, 2d pl. -*sta* in *vadhī-ṣṭa* 'caedatis' 23, 25; 3d pl. SENTI 32 fn., (E)SONTI 51, ENTI 51, 70, 74.

c. Augmented preterit ĒSA (ĒSM) in ( $\acute{\epsilon}$ )*ψεδόης* [ES] $\alpha$  18; ĒSOM in OBulg. *vidē-achŭ* 42; cf. *dederat* from DED[IS] ESĀT 25.

d. Future-Optative paradigm -SYETI -SYĒT 37; the optative (E)S(I)YĒM (Ē)SIVĒS (E)SIVĒT 32; Greek 3d pl. *είεν* 32 fn.; -*ειης* in *μυ-ειης* 61; Goth. optative *sīyazip* from a blend of S(I)YĒTE and ESOITE: *ēoi* 32 fn.; Lat. *simus sitis sis* 33, 59.

e. Lat. *erās* 62.

#### J. Root conjugation from ESTI conjugation.

a. See in general 67; exx. Skr. *dveṣ* [ES] $mi$  'invidus<sub>sum</sub>', *dāṣṭi* 'celebrans<sub>est</sub>' from DĒKS [ES]TI, Lat. *fers* from BHERS [ES]I, Lith. *se'st* from sĒ(D)S [ES]TI. Gradation in root conjugation 67.

#### K. The ESĶETI conjugation.

a. Lat. *escis escit*, *ἔσκε ἔσκειν* 52; *εὔρις* [ES] $\kappa\omega$  etc. 27.

#### L. The STHO/E (STHĀ) conjugation.

a. Person endings from STHĀ: STHA[I] in *οἶσθα*, Lat. *nostī* 75; -*με-θα/-με-σθα* 83; cf. also under preverbal flexion, supra B.

<sup>1</sup> On the copulative value of EITI see 44.

- b. Tense-complexes: αἰς(σ)θάνω 'capiens\_sto', cf. ἀμαρ[σ]τάνω 'non\_tangens\_sto' 78; 2d pl. STHE in ἐγρήγορ[σ]θε; 3d pl. STHANTI in ἐγρηγόρ[σ]θασι 75; pres. formant STHO/Ε in Lithuanian 76, cf. OBulg. *pleta* 77; STO/Ε in Skr. *ceṣṭati veṣṭate* 78; -STHĀT in Lat. *gustat va[ɸ]stat* 76-77; aor. (ἐ)γνώ(ς)σθης: Skr. (a)jñā(s)sthās (cf. on the -θην: -ην aorists) 81.
- c. Infin.-impv. -STHAI in δο(ς)σθαι: Av. *dasē*, cf. Av. *berə[s]θε φέρεσθαι* θέσθαι 75, 77 fn., 82; -STHĪ in Av. *berəθi*: OBulg. *plesti* 77 fn.
- d. Past ptc. -TO- from -STHO-S 80, cf. ἄγνω(ς)στος ἄπα(ς)στος.
- e. Superlative in -STHOS 80.

M. Nasal conjugations.

- a. Skr. complexes with *nī* 'ducere' remaining unwelded in *vi-krayāñ nayati* 'mercatum ducit', *vi-kṛīñ n.* 'ad mutationem d.' 86; the SNEI complexes in Sanskrit 85, cf. on *ḍpai-veis* (?) 65. The SNEU complexes 85; Skr. *caṅnōti* 59.
- b. Gerundials: Skr. *vare-ṅya-s* 'optari (se) ducens', *kara-ṅya-s* from *karm nīyas* 'fieri (se) ducens', cf. Lat. Cupien-nius Heren-nius 87.

N. The NO/Ε conjugation.

- a. Lat. *danunt*: Skr. *danas*, Skr. *bhananti*, -σθάνω contain an infinitive prius in -N, followed by the thematic endings (70-71) 26 fn., 38 fn., 70, 78.

O. The BHŪ conjugation.

- a. Lat. -*bo* fut. 38, 40; -*bam* impf. 43; *rapie-bam* from *rapyes-bam* (?) 97.

P. The ER conjugation.

- a. 3d pl. ending -(E)RONTI 'ierunt' 72-73.

Q. The WES conjugation.

- a. Skr. auxiliary verb *vas* 40 fn.; pf. ptc. in *wos* 72, 98.

R. VOICE, THE ITALO-CELTIC PASSIVE.

- a. These forms arose, with ellipsis of the copula (5-6 etc.), from agent nouns in TUR/TÖR 88 sq.; impv. *dator* = usual form of agt. noun, indic. *datur* the -TUR form 92; dialect forms in -TIR = agt. noun in -TĒR; those in -*ter* the vocative of the nouns in -TĒR (?); in -*tur* agt. nouns in -TÖR; those in -*tar* a samprasāraṇa form of -TUR 92. Celtic passive 93. Lat. pass. infin. in -*ier* from -YES(1) 94 sq.

S. MOOD FORMS.

- a. Impv.-infin. in -SI 39; -*ā* subjunctive has a feminine prius 69; -*YĒ*-opt. = a long-vowel subj. 31; -OI- opt. a deflected grade of -EI- indic. 62; Lat. *sis sit* 24, 33; Lat. *ē*- future=opt. 64.

T. NOUN FLEXION (99-105), cf. *Syntax*.

- a. General: shift in declension form 51; monosyllabic root nouns, their instability 10; cries and calls, dissyllables in diphthongs 99, monosyllables 104; precasuals 99, vocative diphthongal 100; diphthong case endings 102; vocative

yielded the other diphthongal cases, dative, instrumental, locative 101; vocative yielded nominative 72, 104; nominative -s of relatively late adoption 34, 104-105; demonstrative formed by adding the demonstratives ES and IS to a vocalic base 104-105; nominative plural = vocative singular 102; plural from singular 102, 104;  $\bar{A}I$ ,  $\bar{E}I/\bar{O}I$  declensions 103; genitive has articular endings ES so/syo 106.

#### U. PHONETICS.

a. General: Bantu concords 53; instability of monosyllables 10; emotional potentiality of long vowels and diphthongs 35; in the vocative (Skr. pluti) 100; vowel harmony 43.

b. Haplology: 1st of letters, [s]TH 16,  $\iota$ o, 82 (Skr. *sapta*-[s]t $\bar{h}$ a-s '7th'); 2d of syllables, 28 (Skr. *cikits*-[as]at, *pīpas*-[as]ati); Skr. *dā*[sī]-syati 39, *dīks*-[as]at 13; *deī*[ES]ω 14; *didā*[ES]κω 52; *dos*-[ES]ke 26; *ēpous*-[ES]κω 26-27; *μev*[ES]έ(σ)ουσι 17; Lat. *caps*[ES]it 12; *crud*[os]escit 27; *gu*[sī]stos 80; *lux*[ES]it 12; *pās*[ES]cor 26; *quæs*[ES]o 66.

c. Procope in ESTI paradigm (not gradation) 31, 51.

d. Syncope of IE. pretonic vowel  $\bar{I}$ ; in gen. sg. and nom. pl. in (E)S 72, 89; in Skr. *var(i)*syati 39; in ARK(I)STHOS 'ἀρκτος' 79; double syncope in  $\bar{R}$ KSTHOS 'ursus' 79; in *k̄p(i)sthos* 'factus' 80.

e. Gradation:  $\bar{i}$  from  $\bar{E}I$  59, 62, from  $\bar{Y}\bar{E}$  33; long and short vowels in noun flexion 10;  $\bar{A}$  by levelling of  $\bar{a}$  and  $\bar{E}$  85;  $\bar{o}$  from  $\bar{O}M$  ( $\epsilon\gamma\omega$ : Skr. *ahm* :  $\delta\omega$  : Av. *dam*) 71.

f. Samdhi forms of final diphthongs showing loss of the  $\bar{I}$  (U) element  $\bar{I}$ ; cf.  $\acute{\alpha}\gamma\epsilon$  :  $\acute{\alpha}\gamma\epsilon\iota$  (see 99-100),  $\nu\acute{\iota}\mu\phi\alpha$  : Skr. *kānye*;  $\acute{o}\lambda\delta\alpha$  : Lat. *videi*, *oītha* : *vidisti*;  $\kappa\lambda\upsilon\tau\acute{\alpha}$ - $\kappa\lambda\upsilon\tau\acute{\alpha}$  102.

g. Consonants: heavy groups 77; KSTH-> *ks* 79 fn.; > *s*- 79 fn.; KWSTH-> *s* 79 fn.; KSTH> *kt(h)* 77; RSTH> *rt(h)* 82; > Lat. *-rs-* 80;  $\bar{k}/\bar{h}$  77 fn.;  $\bar{p}$  questioned 79; STH not  $\bar{p}$  in Lat. *texo ursus* 79;  $\bar{s}$ ->*ss* when final in a (separable) complex  $\bar{I}$ .

h. Sanskrit:  $\bar{a}$  as a weak grade of  $\bar{a}$  26 fn.;  $\bar{i}$ -, not  $\bar{a}$  in fut. 37; Bartholomae's law, exceptions to 80;  $\bar{t}/\bar{i}\bar{h}$  78, by Grassmann's law 80; -THY-> -TY- 82; D(H)DH> *dhk*, not *sdh* 82;  $\bar{m}/\bar{n}$  in Skr.  $\bar{a}m$  for  $\bar{a}n$  19.

i. Greek:  $\bar{a}$  for  $\bar{E}$  86;  $\bar{E}$  in aor.  $\bar{o}\eta\nu$  secondary 81;  $\kappa\tau$  from  $\bar{K}$ STH- 79; aspirate in 2d pf. due to  $\kappa\acute{\epsilon}\kappa\lambda\omicron\phi\alpha\varsigma$  etc. replacing  $\ast\kappa\epsilon\kappa\lambda\omicron\phi[s]\theta\alpha$  75;  $\bar{r}$ - from  $\bar{s}$  retained 16 fn.

j. Latin: Vowel levelling in, 43; procope in *vespera*'scit 27; pretonic  $\bar{d}$ < $\bar{a}$  in *sūgēna* 89 fn.; final diphthong in iambic word like *humi* 43;  $\bar{e}$ < $\bar{A}I$ ,  $\bar{E}I/\bar{O}I$  in hiatus 40, 64;  $\bar{e}$ < $\bar{E}I$  55, 64; *oe*<*au* in *oboedio* 38 fn.; *oe*< $\bar{U}$  in *Cloetemestra* 38 fn.;  $\bar{u}\bar{o}$ s< $\bar{O}I$ WOS 98. Consonants, secondary  $\bar{d}$ s->  $\bar{(d)}$ z- in *arcesso* 66 fn.;  $\bar{N}$ N-< $\bar{m}$ n- 87;  $\bar{r}$ s- ( $\bar{t}$ )< $\bar{R}$ KSTH 80;  $\bar{x}$ t-< $\bar{k}$ sth- 77.

k. Umbrian  $\bar{s}$ - retained in *bennuso* 92;  $\bar{(s)}$ s->  $\bar{r}$ - in Italic 74.

l. Old Irish: Was  $\bar{s}$ - lost in this tongue in proclisis? 51 fn.

#### V. DERIVATION AND ETYMOLOGY.

a. Suffixes:  $\bar{(s)}$ N $\bar{I}$  'ductrix',  $\bar{(s)}$ NO- 'tractus', 'trahens' (in *venenum* = *amorem ducens*), in past ptcc. 85, and fn.;  $\bar{N}$ OS- 82, 85; N/R variation 88;  $\bar{N}$ OR/TUR :  $\bar{N}$ TWER 'facere' in OBulg. *tvoritii* 'facere'; cf. Lat. *cul-tura* 88-89;  $\bar{s}$ TH- in parts of body 79 fn.



b. Sanskrit: *-t* determinant in *dyu-t* 'splendere' 21; *asti* beginning a fable 53; *kṛtvāris* 'sagae' 88; *kṛi-nāti* = mercatum ducit 86; *kṛpitis* 'regnum' 79 fn.; *tar-īyas-* 'vehementer iens' 91; *tur-īya-* '4th' <'captain, princeps' 91; ✓ *dan* 38 fn.; *dam* an infin. not a gen. sg. 38 and fn.; (a) *dyāut* 'splendebat' 21; *draviṇas-* 'bonum, divitiae' 85; *d(h)ehi* <*d(h)as-dhi* 82; *nāth* <SNĒ(s)TH = sacrificans stare, *nī-tha* 'carmen' 85; *nī* <*snīi* 'ducere trahere', specialized in the European branch as 'nere flectere' 85; *nī-mi-s* 'tire' <inductum 85; *bravīmi* 'dico' : Lat. *memoro* 59; *dhānanti* : Lat. *fantur* 26 fn.; *mo(s)-gīs* = rapiens\_sīs 25; *vñ-nāti* 85; *çakndti* : Lat. *queo* 59.

c. Avestan: *-āi* in infinitive 56; infin. *dan/dam* 'dare' 38; *f̌sav* 'saginare', *f̌sao-nay-* 'saginatae' 89 fn.

d. Greek: *ἀγί-νέω* 'agere\_duco' 89 fn.; *αί(ς)-σθάνω* 'capiens\_sto', *ἀ-μαρ-[s]ράνω* 'non\_tangens\_sto' 78; *ἀρκτος* 'bear' <ARKISTHOS 'cave-dweller', *ἀρ[κί]-κος* 'in arce cubans' 79; *βάρ[ος]* ~ *στάζω* 76; *δι-δόν-αι* 38 : Skr. *dan* 38; *δάς* 'da' = agt. noun vocative 82; *δραiv-* (in *δραiv-εις*) a blend of *δραiv-/δραiv-* 65; *ἐλκυ(ς)στάζων* 'trahj~stans' 76; *Φεμ̄-έω*, *Φεμ-* an infin. of ✓ *wĒ* 'flare' 59; *ἐν-νυμι* (*ζών-νυμι*) 'vestem (cingulum) traho' 85; *ἐσθίω* 78; *ἰσθι*, originally 'sta', not 'es' 51 fn.; *κοίρα-(σ)νος* 'heer-zog' 91 fn.; *κτάομαι κτήμα* from \**κταομαι κτημα* 79 fn.; *κτίλος* 'still', blend of the roots of *quies* and *stare* 79 fn.; \**μελῆς* 'cura' 18; *νείται* : OLat. *nīs* 'neš' 85; *νεύμαι* 'eo' 85; *νευ(ς)στάζων* 76; *νέων* 'nans' <'pulling' 85; *νηέειν* 'struere trahere' 85; *ξί-ν* 'with' for \**σκυ-ν* : ✓ *σεκω* 66; *ὀκταλλος* (Boeot.) 'eye' 79 fn.; *πόρκος* 77 fn.; (ἐ) *πριάμ-ην-* 'mercatum\_ibam' 86; *Σάτυρο-οι* 'comedones' 89 fn.; *στῆρ-νυμι* 'I strew-pile' 85; *Τίτυροι* 'Salii' 89 fn.; *τύραννος* <TURM + SNOS 'copiam ducens' 91 fn.

e. Latin: Suffix *-Iwos* 'going' in *inter-nec-ivus* etc. 98; *arces*~ (in *arcesso*) 'pursuers' 66 fn.; *arc-s*, originally 'specus' 79; *auctor* 5 fn.; *cen[tum]turio* 'centum\_ducens' 91; *dan-unt*, infin. prius 70; *-ducere* 'trahere' : Skr. *duh* 'mulgere' 13 fn.; *en*, interjection > demons. pronoun 50-51; *gnārus* 'sciens' <GNĀNOS- 9 fn.; *gu(s)stat* 'tasting\_stands' 76; *nequeo, queo* : Skr. *çakndti* 59; *plec(s)to* 'lashing stands' 77 fn.; *quaeso* 66; *reg(n)ina*, reduplication of *-NĪ/NĀ* 85; *sagīna* from PSA(Y) 'edere' + AGĪNĀ quasi 'actio' 89 fn.; *satellites* from KSATEL 'rex' + SNO 'ducens', with irradiation from equites 91 fn.; *satur* 'comedo', from PSATUR 89 fn.; *silet*, cf. 79 fn.; *sōpire* from SŌP(ΕΙ) 'ad somnum' + 'ire' 59; *va[ρ]stat* 'rapiens\_stat' 77; *-vis* 'wilt' < *sivelis* > *silis*, with restored *v*, *sivis* 55 fn.

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