Nostratic grammar: synthetic or analytic?

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§ 1. The criteria determining the original analytic status of a grammatical morpheme can be defined as follows.

[1] Mobility: in the daughter languages the same morpheme sometimes precedes autosemantic words and sometimes follows them (e. g. the pN *mA* that forms participles and other deverbal nominals in daughter-languages is found both before and after the verbal root).

[2] In some daughter languages the morpheme is still analytic or has phonological evidence for its former analytic status [e. g. the N morpheme *bA* (that forms animal names and other nouns of quality bearers) survives in proto-Uralic *-pa*; since the N intervocalic *-b-* yields pFU *-w-*, while the word-initial *b-* yields U *p-*, the Uralic suffix *pa* must go back to a separate word].

[3] A grammatical morpheme of daughter-languages is etymologically identical with a separate word (e. g. the 1st person ending *-mi* of the IE verb is identical with the N pronoun *mi* that is preserved as a pronoun in daughter-languages).

Sometimes other typological features (position in the word) may be taken into account. For instance, if in Semitic and Cushitic (Beja) verbs the feminine marker (*-ī*) is used in the 2nd person only and is separated (as a suffix) from the person marker (prefix *t-*), it is natural to suppose that it goes back to an address word (Hebrew *tiħyī* 'you' [f. sg.] will live' < N *ṭ{ü}* 'thou' + *χay{ü}* 'live' + *ʔ{ä}yV* 'mother'), which is typologically comparable with the gender distinction of a yes-word in spoken English: [*yesɜ:*] (< *yes, sir*) vs. [*yesm̥*] (< *yes, madam*). Turkic *baṣ-ım-da* 'in my head': *-ım* < N *mi* 'I', hence *-da* goes back to a separate word.

I. Nostratic etyma of the grammatical morphemes in daughter languages

A. The origin of case endings and preverbs

§ 2. ***nu**, postp., adverb and preverb 'from', postp. 'of'. It functions as a postnominal genitive marker in U *-n, pM *-nu (*minü 'my', *cinü 'thy', *modunu* 'of a (the) tree'), Tg *ηī (< *-n- + adjectival sx. *-kī), pT *-η, the J postposition *no*, Omotic genitive ending *-nV, Sidamo -ni. The genitive marker ***nu** was used in constructions "noun + ***nu** + noun underlying later endings of oblique cases" (as in English *for my father's sake*) and thus became a presuffix of oblique cases. This usage is preserved in pIE heteroclitic nouns (Hittite instrumental case *wete-n-it* 'with water' < N ***wete nu yu⌊⌋t⌐i⌐**, where the noun is ***yu⌊⌋t⌐i⌐** 'company, with') and in the D presuffix ("increment") of the oblique cases *-iṇ-. The meaning 'from, away' is preserved in the Lithuanian preposition *nuõ* and Latvian *no* [*nũo*]'from, off, out of', in Berber *n (analytic particle 'away': Kabyle *awi-n* 'carry away'), as well as in compound endings: Greek -θεν, Turkic *-t|an/*-t|än (both from N locative ***da** + ***nu**). Evidence for the original analytic status: [1] mobility, [2] preservation of the analytic status (Baltic, Berber, Japanese).

§ 3. ***mA**, postposition denoting a direct object > accusative in IE, Uralic, Omotic *-m, proto-Mongolian *-ma-yi (with a new acc. ending *-yi) in pronouns (*ci-mayi 'thee'), proto-Japanese *wo* > Japanese *o* (postpostion), North Tungusian and Amur Tungusian *-ba/-be ~ *-ma/me (acc. ending), Written Manchu *be* [accusative postposition or suffix; according to the old descriptions (Harlez, Zaxarov) it is a postposition, according to recent comparativistic descriptions (Cincius, Benzing, Sinor) (influenced by the synthetic status of *-ba/-be in other Tungusian languages?) it is a suffix, but its phonology and usage point to its (former or actual?) analytic status: it is not connected with the nominal stem by vowel harmony or inner sandhi; the speakers of Manchu treated it as a separate word, which is reflected in the traditional Manchu spelling: *morin be* 'equum' with the final letter -n and not *morimbe (cf. Haenisch M: 41-2); if there are several coordinated direct objects, the accusative marker *be* follows the last noun only: *abka na śun biya edun aga akyan talkiyan be tuwaci* 'wenn man Himmel und Erde, Sonne und Mond, Wind und Regen, Donner und Blitz betrachtet' (Haenisch M 42), which also suggests its analytic status. Evidence for the original analytic status: preservation of this status or its traces in Japanese and Manchu.

§ 4. The origin of the nominative case markers. Nominative case markers are found in IE (*-*s* of the active [→ masc.] gender]), Semitic (*-*u* in sg.), East Cushitic (*-*i*), Kartvelian (*-*i*). All of them go back to demonstrative pronouns or demonstrative particles (→ focalizing markers of the theme → markers of the grammatical subject). These dem. pronouns and particles are: [1] **sE** 'he\she' (> IE *-*s*), [2] **{h}u** 'iste', dem. pc. (> Sem. *-*u*), [3] **{h}i** 'iste' (or 'hic'), dem. pc. (> Kartvelian *-*i* [nom.], East Cushitic *-*i* [marker of the theme ≈ marker of the subject case]). All of them still function as pronouns or definite articles (or as initial parts of pronouns) in many daughter-languages [N **sE** 'he\she' > IE *so* (dem. prn. of the animate [masc.] gender), Finno-Ugric *sE* 'he, she', S *šūʔa* 'he, that'; N **{h}u** > IE *ʔu-* / *ʔou̯-/ *we-* / *wo-* 'iste', deictic pc. (> Old Indian, Avestan *ava-*, Sl *ovъ* 'jener', etc.), Beja *u* (def. article of masc. in the nom. case), Finno-Ugrian *u-* (> Hungarian *o-da* 'dahin', *ott* 'there'), Turkic *o* 'jener dort', Drav. *u* 'iste']; N **{h}i** > IE (Hier. Luwian *ī* 'this'), Samoyed *i-* and Kartv. *[h]i* 'iste', Korean *i* 'this', D *i* 'hic (the nearer to the speaker)', etc. The pN analytic status of all these etyma is obvious.

§ 5. **{y}iyo** 'which', 'that which, related to' (individualization through relation). It underlies [1] suffixes of relative adjectives ('related to...') in daughter-languages [NaIE *-(i)yo-* id. (> OI *pitr(i)yaḥ*, Gk πάτριος, L *patrius* 'paternal, related to father', OCS *člověčъ*, R *человечий*, Tocharian A *mań-i* 'of the moon, lunaire'), S *-iy-* and Eg. *-y* (sx. of relative adjectives), Uralic ≈ *-ī ~ *-yV* id. (> Ostyak *χȯḍi˙* 'house-..., belonging to the house', Hungarian *isten-i* 'divine', *tegnapi* 'of yestersay, gestrig', Tundra Nenets *t́ēi* 'gestrig', etc.), [2] suffix of the genitive base > branches of IE (Latin *amīc-ī*, *vir-ī*, Ogam Irish *maq-i* 'son's, of the sun'), S *-i* (genitive case ending), Beja *-i* id. (*wi-ʔōr-i bāba* 'pueri pater'), North Omotic *-i* id. The etymon in question is found also in the function of a separate word, a relative pronoun [IE ´*yo-*, rel. pronominal root (> OI *ya-s*, Greek ὀ-ς, Sl *jъ-že* 'which' rel.), Finno-Ugrian *yo-* 'which' (rel.), which proves its original status as a word. What is still to be elucidated is the possible relation between this **{y}iyo** and the interrogative pronoun **ya** 'which?' (> Svan *yä- ~ ya-* 'who?', Mongolian *ya ~ *ya-n* 'what?', Tungusic *ya* 'what?', D *yā* 'what?, which?', Chadic: Musgu *yà* 'where', Hausa *yằyà* 'how?').

§ 6. ?? **h{a}ya** 'for', directive-designative pc. > IE *-*ei̯* 'to', ending of the dative case [> *ped-ei̯* 'to the\a foot' (> OI *pád-ē*, L *ped-ī*), *mātr-ei̯* 'to the mother' (> OI *mātr-ē*, L *matr-ī*, OCS матери *mater-i*), etc.], HS: S *ʷ-hay* > Gz *-hē*, ≈ directive-locative pc.: *kʷəllə-hē* 'everywhere', *kʷalla-hē* 'in every direction' (*kʷəll-* is 'all, every'), Alt: Tung. *-ya* as a designative pc. (Lamut, Ne-

gidal *mō-yā-n* 'tree (wood) for him') and probably Mong. *-yi*, accusative ending, Drav.: Tamil, Old Malayalam accus. ending -*ai̯* and Brahui dative-accusative ending -*e*, Kartv. *a-*, causative (designative) verbal px. [that follows the personal prefix for objects ('me, thee, him')]: OG, G *a-*, Mgr, Lz *o-*, Sv *a-*. e. g. OG *m-a-su* 'er tränkte mich, gave me a drink' (*m-* 'me' + *a-* + *su* 'drink'), Sv. *χ-a-tre* 'er tränkte ihn' (*χ-* 'him' + *a-* + *tre* 'drink'). The change dative → accus. (observed in Mong. and Drav.) has parallels in many languages [Spanish *veo a* J*uan*, Persian *rā*, Aramaic *l-*, Georgian -*s* (dative case used for direct objects as well)]. If the questionable Kartv. cognate *a-* is valid, the mobility criterion points to the original analytic status of **h{a}ya**.

§ 7. **t{ä}** 'away (from), from', ablative (separative) pc. > IE *-de* / *-T* (neutralized phoneme *-dE* + *-d* + *-t*), separative (ablative) case ending (> Cretan Greek τῶ-δε 'from here', Gl βρατου-δε 'ex merito'; *-T* 'from' > OI ´*ma-d*, Old Latin *mē-d* 'from me'; with the *-o*-stems *-ōT* / *-ēT*: OI *vr̥kād* 'from the wolf', Delphian Greek Ϝοίκω from home', Old Latin -*ōd* 'from', Gt *hvaÞrō* 'from where?', Blt *-ā* (> Lt -*o*, Ltv -*a*) and Sl *-a* (gen.-abl. of the *-o*-stem): Lt *tõ* 'of (from) this', *vil̃ko* 'from (of) the wolf', Church Slavonic *těla razlučiti sę* 'to separate <u>from</u> the body'; U *-ta/*-tä* 'from'; D *-ṭi* 'from'. It survives as a separate word in IE *dē* 'away (from), from' > L *dē* prep. 'from', OIr *di*, *de* 'from ...down, from ... away', etc.

§ 8. **bayV** 'place', 'to be (somewhere) = estar' > HS: S *bi* 'in' and instrumental 'with' (preposition → prefix), Beja *-b*, locative case sx., IE *-bʰei̯/-bʰi*, locative pc.: Gk Hm -φι, case pc. with the meaning of instrumental, locative, dative, ablative; marker of instr., dat. and ablative in several lgs.: IIr *bʰis* instr. pl. (> OI -*bhiḥ*, Av -*bīš*, OPrs -*biš*), *-bʰayas* dat.-abl. pl. (> OI -*bhayaḥ*, Av *byō*), L -*bus* abl. pl., -*bis* in *nobis, vobis*, etc. The same etymon is preserved as a word in Egyptian *bw ~ by.t* 'place', Cushitic *bay-* (> Sd *bayi-ččo* id., and Chadic *bV̄yV̄* 'place' (> Bolewa *beyi*, Karekare *biyi*, etc.;), in Mong. M *bayi-* 'stand, stay, be' and in Tung. *bi̯ā* 'lying-place (within the house/hut), bed' (> Udehe *beä*, etc.). The analytic origin of the IE, Semitic, Beja, Qwara locative affixes is obvious.

§ 9. **d[oy]a** 'place (within, below), inside' (→ locative pc.) > IE *-dʰe* locative ending ('in') in adverbs: *ku-dʰe* 'where?' (Old Ind. *kuha*, Sl *kъde*), Gk πρόσθε(ν) 'in front, before', IE *-dʰi* (OI´*adhi* 'on', Gk πόθι 'where?', ὀικοθι 'at home'), A: Turkic *-t|a/*t|ä* (loc. case ending), HS: Cush.: Agaw *-da* id., U: Tundra Yukagir locative -*da* in *qa-da* 'where?', *ta-da* 'there', Ostyak *ko-t* 'where?', D *-ṭṭ{u}* (locative-ablative case ending), K *-da* 'towards, to X's place, chez'. As a separate word it survives in South Cushitic (Iraqw *di*,

Burunge *da* 'place'), in Berber **d* (preposition 'in', directional particle **d* 'her-'), Tungusic **dō* 'inside'.

§ 1O. ***mENV*** (= ***mEńV***?) 'from' > HS: Sem. **min* (or **minu*?) 'from, out of' > Bibl. Hb., Bibl. Aram., Jewish Aram. *min ~ mi-* + gemination of a consonant, Phoen. *mn ~ bn*, Syriac *mɛn*, Arabic *min*, Sabaic *mn*, Tigre *mɜn*, Mehri, Jibbali, Soqotri *mɜn*, Eblaitic *minu* id. || Eg *m* 'aus etw. heraus, von einem Ort an' || K **-man*, ending of the ergative case > Old Georg. *-man*, Georg. *-m*, *-ma*, Svan *-m* id. | IE: Narrow IE **-mos*, ending of ablative-dative pl. > Lt. *-mus*, *-ms*, Slavic **-mъ* (> OCS *-mъ*, etc.) id.; NaIE **-mis* instrum. pl. > Lt. *-mis*, Slavic **-mь* (> OCS *-mь*, etc.); Narrow IE **-mis* x **-mos* > Germanic dat./abl./instr. pl.**-miz* > Old West Germanic {Kluge} *-m(i)s* (in n. pr. V*at-vims* 'Vatviabus', A*flims* 'Afliabus', S*aitchamim(i)s* 'Saithamiabus'), Gothic, Anglo-Saxon *-m*, Old Norse *-mr* ◊ The final **-s* in **-mos*, **-mis* may go back (through the infl. of other cases of pl.) to IE **-(e)s* of pl. (< N ***{ʔ}Vśa*** 'they') ◊ The loss of **-N-* in IE may be accounted for either by the reg. change N **ń* > IE **i̯* (if the N etymon is ***mEńV***) or by reduction in a grammaticalized (hence unaccented) word → morpheme.

§ 11. ***yu⊥⌐ₗtᵣi¹*** 'with, beside' (⊥ = unspecified consonant) > IE: Ht *-it* 'with', K **-it*, ending of the instrumental case, A: Tungusian **-ji* (< ***-di*) id., D **-ṭV*, ending of the sociative case. As a separate word it survives in HS: Semitic **ʔittV* id. > Akkadian *itti*, *ittum* 'with, along with', 'by' (agens of passive verbs), Bibl. Hebrew *ʔeṯ* 'with' (*ʔitt-* before pronominal endings: *ʔit ´t-ī* 'with me', etc.) and in U: Finno-Ugric **yuttV* > Ugr **yuttV* 'with' > proto-Vogul **yŏt*, proto-Ostyak pOs **yŏt* 'with'.

§ 12. ***ʔVrV*** (> ***rV***) - theme-focalizing (topicalizing) particle > A **t´e-r{a}* id. (marked topicalizing case, sg. of **t´e-* 'der, das') > M **te-re* (theme-focalizing case <> stem of obl. cases **te-gün*) 'that' (used also as 'he'), Tg **tere ~ *tarV* 'that, he' || IE: nom.-acc. ending **-r* in heteroclitic nouns: nom.-acc. sg. **wodo(:)r* 'water' (> Ht *watar*, Gk ὕδωρ, AS *wæter*, OHG *waßßar*, etc.) <> gen. sg. **wed-n-os ~ *ud-n-os* (> Ht *wetenas*, Gt *watins*, Gk ὕδατος [≈ **udn̥tos*], etc.) || HS: Eg *ʔyr* 'as for' (topicalizing pc., preceding the topic word). Since this particle remains analytic in Eg, it is likely to have been analytic in pN.

§ 13. ***ʔiṉ{A}*** 'place' (→ 'in' in daughter-lgs.) turned into a locative suffix in Uralic and Kartvelian: Ur. **-na/*-nä* 'in' (F *koto-na* 'at home'), Kartv. **-na*, **-n* 'in', surviving in adverbs: Old Georg. *ši-na* 'inside', *çi-na* 'in front (of)', *ze-na* 'above', *uḳ(u)a-na* 'behind', *gušin* 'yesterday', etc.), HS: Omotic **-n* (locative ending in adverbs (Gofa *gaça-n* 'in the middle', *giddo-n* id., 'in between', *bolla-n* 'above'); Alt.: proto-Mongolian **-na/*-ne*: **qoyi-na* 'in the

rear, back', *dotu-na adv. 'inside', *gada-na 'outside', etc.'; Drav. *-iṇ, *-ṇV 'in' (e. g., Old Telugu -ə(ṇ), -ṇi: perumatəṇ 'in the west', bāraṇasi-ṇi 'in Benares'); IE *-en/*-ne, locative sx.: Ht -an id. (andan 'inside', appan 'behind', piran 'in front'), Vedic ´kṣām-an 'on earth', Latin super-ne 'upwards, from above', in-fer-ne 'below'). But in some languages it remains an autosemantic word (Turkic *īn 'holeair of an animal', Manchu un 'straw-littered bedding-place in a pigsty'; Finno-Ugrian *{i}n|ṅV 'place' > Old Permian, Ziryene in 'place', Old Hung., Hung. [dial.] eny 'geschütztes Ort') or functions as a preposition (S *ʔina 'in' > Akk. ina ~in 'in', Eblaitic in 'in', Berber: Nefusi in 'in'; IE *ʔen/*ṇ, *ʔeni in' > Greek ἐv, Latin, Gothic, Anglo-Saxon, OHG in, Lith. Lt į̃, etc.). The analytic origin is obvious.

§ 14. The origin of the genitive case markers: [1] ***nu** (see above), [2] ***{y}iyo** (see above), [3] the pronominal particle ***ha** 'ille' or ***he** 'that' + pronominal ***sE** 'he\she' (see above); the meaning of genitive is expressed here syntactically: in groups "noun N₁ + nominal N₂" the noun N₁ functions as genitive, so that the nominal phrase "N₁ ***ha\e sE**" means '*N1's that'*, i. e. 'that of the N₁' (the meaning of ***ha\e** reduced to that of an article) > IE *-os/*-es (preserved best in the nominal inflection of consonantic stems) > OI -as (g of consonantic nouns, e. g. rajñ-as "king's"), Gk -oς (id.), L -is (< *-es), OLt -es (ákmen-es 'of stone', móter-es 'mother's', dukter-és 'daughter's'), Lt -s (akmeñ-s, dukteř-s), pSl *-e (e. g. OCS камене kamen-e 'of stone'), Gt -s (gumin-s 'person's'), Ht -as (halkii̯-as 'of corn'), K *-iṡ (~ *-ṡ ~ *ʷ-aṡ), marker of the genitive case > OG, G -is, -s, Mg -iš, -š, Lz -š, Sv -iš (~ i̯š), -äš (-aš) id. In order to understand this construction, we must keep in mind that sequences of demonstrative pronouns (and demonstrative particles) had syntactic properties of nouns (unlike singular demonstrative pronouns. cf. below § 51, point 6). Very archaic forms are present in the IE heteroclitic nouns: *-nos ~*-nes in Ht pahhuenas 'of fire', witenas 'of water', OLt wạndenes id., OI yaknas 'of liver' - cp. nom. yakṛt); the underlying N word group is N₁+ ***nu hV sE** [= ***nu** gen. + deictic ***ha** or ***he** + pronominal ***sE** = lit. "the N₁'s he", i.e. 'that of the N₁']; the deictic pc. and the prn. function here as nominalizers of a phrase (***wete nu hV sE** literally means 'that of the water'). A combination of several genitive markers may be discerned in the IE genitive form *tosyo ~ *tes(y)o (of the demonstrative pronoun *so / *tod) > Old Ind. ´tasya, Gk τοῖο (~ τοῦ), Gt Þis, as well as in Latin ist-īius and in OCS česo.

§ 15. ***šawV** '(in the) middle' > IE: Narrow IE *-su, locative pl. ending (→ 'among' → 'in the middle'), e. g. *wḷkʷo(i̯)-su 'among wolves' (with the pl. marker *-oi̯- from the declension of demonstr. prns.) > OI vṛkē-ṣu, Old Lith.,

Aikštaitis Lith. *vilkuo-su* (Standard Lt *vilkuo-se* with the change **-u > -e* under analogical influences), Slavic **vьlc-ě-χъ* (> OCS *vlьcěхъ*), Gk λύκοισι [transformation **-su > -σι* due to the infl. of the locative sg. ending **-i* or of the Gk locative marker *-φι < *-bʰi*] 'among wolves', Narrow IE **sūnu-su* 'among sons' > Old Ind. *sūnu-ṣu*, Aikštaitis Lith. *sunuo-su*, Standard Lt *sunuo-se*, Sl **sinъ-χъ* (> OCS *sinъхъ*), Narrow IE **toi-su* 'among \ in these' (m. pl.) > OI *tēṣu*, OCS *těхъ*, Lith. *tuose* || K **šowa-* or **šuwa-* 'middle, in the middle' > Old Georg. *šuwa- ~ šowa-* 'middle' (*šuwa ɣames* 'midnight'), etc. || HS: Central Cush: Awngi *ӡšew*, Damot *šAwī*, Kunfäl *šew* 'heart' || Uralic: Finno-Ugr. **š|sawta* 'lungs' > Lowland Cheremis *šoδo*, Highland Cheremis *šoδ* id., proto-Lappish **sōvtē* 'gill(s) (of a fish)' || Alt.: Tund. **saya(n)* 'interstice between fingers (toes)'. It is obvious that IE **-su* goes back to a N word.

B. The origin of plural forms

§ 16. ***yE** (= ***y{i** }?) 'these, they' (animate plural deictic element) > IE **-i̯*, plural marker of animate gender (> Narrow IE m. and f.) of dem. and interr. pronouns, e. g. **to-i̯* 'these' [animate gender] > Old Ind. *tē*, Loth. *tiẽ*, OCS *ti*, Old Russian *tě*, Russian *te*, Goth. *Þai* id., Greek (Bœetic, Doric, Homeric) τοί (masc. pl. article), etc.; the pattern was later adopted by thematic nouns and adjectives in Latin, Greek, Lith. and Slavic (Latin *-ī*, Greek *-οι*, Lith. *-ai*, Slavic **-i*) || Uralic **-yi/-ʔi* (> *-i-*, *-i̯-*), pl. marker in oblique cases > F *koulu-i-ssa* 'in schools', North Lappish N *sul´lu-i-d* accus. 'islands', Kamassian *ӡaɣa-ʔi-m* 'rivers' (acc.) || Altaic: Tung. **-ye*, pl. of the interr. pronoun **ŋ{uy}* 'who?' > Ewenki, Negidal *nī-yə ~ ŋī-yӡ*, Lamut *ńī-yӡ ~ ŋī-yӡ*, Orochi *ńī-yӡ* 'quiénes?' || HS: Old Eg. *y-*, pl. marker of dem. pronouns: *ypn* 'these' m., *yptn* 'these' f. (<> *pn* 'this' m., *tn* 'this' f.), *ypf* 'those' m., *yptf* 'those' f. (<> sg.: *pf* m., *tf* f.), *ypw* 'these' m., *yptw* 'these' f. (<> sg.: *py > pw* m., *ty > tw* f.); Berber **ī-*, nominal px. of m. pl.: **ī-ɣūnāb* 'feathers'; Beja *yā / ā* 'the' nom. pl. m., *yē ~ yi / ē ~ i* acc. pl. m. The mobility criterion suggests the original analytic status of this etymon.

§ 17. ***{ʔ}Vś V** 'they' > IE: [1] **-es* (< ***-ʔes*), nom. pl. (animate gender) (with consonantic stems: Old Ind. *-as*, Greek *-ες*, Gothic *-s*, Latin *-es*), [2] **-n-s* (< **-m* acc. + **-s* pl.), acc. pl. (animate gender) || Kartv. **-Vs* > Megrel *-es / -is*, Laz *-es*, verbal ending of 3 pl. aor. || Alt.: Chuvash *-əś ~ -əźə* 'their', *-əś* (3 pl. ending of verbs); Mong. **-s*, pl. of nouns (Middle Mong. *üge-s* 'words', *ere-s* 'men') || Ur.: Ziryene *-ӡś*, pl. of adjectives: *ӡeńid-ӡś* 'short' (pl.) || HS: West Chadic {Kraft} **sun* 'they', **su(n)* 'their, them' (in some Ch lgs.

postnominal, pre- and post-verbal) (> Hausa *su* 'they, them, their', Bolewa *su* 'they', -(*s*)*su* 'their', Fyer *són*, Bokos *sín*, Dwat *suŋ* 'they'). The original analytic status of this etymon is evidenced by its mobility and by its survival as a word in Chadic.

§ 18. ***ʔa{h}a** 'thing(s)', collective pc. of inanimate (≈'de ça') > IE *-*ḫ* > *-*ə*, ending of pl. ntr. (nom.-acc.) > OI -*i* (*asti* 'bones'), Av -*i* (*nāmə̄ni* 'names'), Gk τέτταρ-α 'four' (pl. ntr.), OI *cátvār-i* id.; in the paradigm of thematic nouns *-*eh* [= *eA₁] (the stem-final vw.*-*e* + pl. ntr. ending *-*h* = *A₁*) yields: (1) NaIE *-*ā*, e. g. *yŭgā pl. ntr. (nom.-acc) 'yokes' > Vd *yŭgā*, Gk ζυγά, L *iuga*, Gt *juka*, OCS *iga*; Anatolian IE *-*a* id. > Hittite, Luwian -*a*; Drav. *-*a*, inanim. pl. ending in pronouns of the 3rd person (Ml *iv-a* id.); HS: Semitic patterns of nomina collectiva (> Arabic, Old South Arabian and Geʿez "broken plurals": Arabic *ʔa12ā3*- (*ʔaqdām*- 'footsteps' ← sg. *qadam*-, *ʔasmāʔ*- 'names' ← *ʔism*- 'name', *ʔabwāb*- 'doors' ← *bāb*- 'door') and *ʔa12u3*- (*ʔanfus*- 'souls' ← *nafs*- 'soul', *ʔawğuh*- 'faces' ← *waǧh*- 'face'), Gz patterns *ʔa12ā3* (*ʔaznāb* 'tails' ← *zanab*, *ʔadbār* 'mountains' ← *darb*), *ʔa12ū3* (*ʔahgūr* 'cities, towns' ← *hagar*, *ʔaḥkūl* 'fields' ← *ḥukl*), *ʔa12ə3* (*ʔaṣḥəl* 'cups' ← *ṣāḥl* [*ṣaḥl*], *ʔabḳəl* 'mules' ← *baḳl*), OSA pattern *ʔ123* (*ʔhgr* 'cities' ← *hgr*); Sem. *-*ā*, pl. of fem. and inanimate nouns: pred. gender *-*ā* (> WS pl. f. ending of the form of state → new perfective: *mawit-ā pl. f. 'are dead' → pl. f. 'died' > Arabic *mātā* id.), in nom., acc. and gen. this *-*ā*-form has a substantivizing ending *-*t*- (nom. *-*t-u*, acc.-gen. *-*t-i*, with the determiner *m it is nom. *-*t-um*, acc.-gen. *-*t-im*): **layl-ā-tu/i* 'nights', **layl-ā-tum/tim* 'the nights' > Hebrew *lēl-ōṯ*, Akk. *līl-ā-tum/tim* ~ *līliā-tum/-tim*. Both in IE (Old Indian, Greek) and in Sem. (Arabic) the noun forms with the reflexes of ***ʔa{h}a** are treated syntactically not as plural, but rather as singular: if the subject is an ***ʔa{h}a**-"plural", the verbal predicate is singular. This suggests that the original function of ***ʔa{h}a** is to form collective nouns. The word group ***mi ʔa{h}a** 'what thing(s)?' (with the interr. pronouns ***mi** 'what?') gave rise to inanimate interrogative pronouns ('what?'): Semitic *mah 'what?' (> Ugar. *mVh*, Arabic Ar *mah* ~ *mā*, Hebrew *ma* + gemination of the initial consonant), Berber *maH id., Finno-Ugric *ma, Chuvash *ma* 'what?'. The mobility criterion proves the original analytic status of this etymon.

§ 19. ***n/n̄{ä}**, prn. of collectivity and plurality > IE: "primary" verbal ending *-(*e*)*nti* 3 pl. [◇ *-*ti* 3 sg.] and "secondary" verbal ending *-(*e*)*nt* [◇ *-*t* 3 sg.] [*t in the 3 pl. ending is from 3 sg. (generalization in the forms of the 3rd person) ‖ Kartv. *-*en*, verbal ending of 3 pl. (Old Georgian *čam-en da swam-en* 'edunt bibuntque'); *-*n*-, marker of pl. in the casus rectus (OG -*n*- (*ḳac-n-i* 'men') ‖ HS: Sem. *-*ān*- > Arabic -*ān*-, sx. of collectivity (*fursān*-

'riders' ⟡ *fāris-* 'a rider'), Geʿez *-ān* (pl. of masc. nouns and adj.: *ḳasīs-ān* 'priests'), Akkadian *-ān-* (suffix of "individualizing plural": *il-ān-ū* 'personal gods'); Sem. *-na*, marker of the rel. mood in 2 pl. m. and 3 pl. m. of verbs > Central Sem. ending of imperfective indic. (in 2/3 pl. m.) (Ar *-na ta-ktub-ū-na* 'you [2pm] write \ will write', *ya-ktub-ū-na* 'they [m.] write \ will write'); B pl. ending of nouns *-an*, *-īn*; Cushitic (Agaw, East Cush.) *-an*, nominal sx. of pl.; Chadic pl. marker *-n* in pers. pronouns || Alt.: Mongolian *-n*, pl. suffix of nouns (Middle Mong. *noqa-n* 'dogs'), Tung. *-(a)na* / *-(e)ne*, pl. of kinship terms and other animate nouns || The same N morpheme is found in the initial position in Finno-Ugric pl. of dem. pronouns (Finnish *nämä* pl. 'these' ⟡ *tämä* 'this', *nuo* pl. 'those' ⟡ *tuo* 'that', *ne* pl. 'those' ⟡ *se* 'that') and in Old Eg. abstract forms [< coll.] and in Middle Eg. plural forms of dem. pronouns [Eg *pʔ* 'this, the' m. ⟡ *tʔ* f. ⟡ *nʔ* abstr. (MEg. pl.), *pw* 'this' m. ⟡ *tw* f. ⟡ *nw* abstr. (MEg. pl.), *pn* 'this [near me]' m. ⟡ *tn* f. ⟡ *nn* abstr. (MEg. pl.), *pf* 'that' m. ⟡ *tf* f. ⟡ *nf* abstr. (MEg. pl.). The mobility criterion proves that the N morpheme was a separate word.

§ 2O. ***1/ḷarwV*** 'together, many' > K *larw-* > G *larv-i* 'a field sown by different kinds of seed', *larva* v. 'baste together (**сметать**)', Upper Bal Svan sx. of pl. *-larw* (*mu-larw* 'fathers' ⟡ *mu* 'father', *di-larw* 'mothers' ⟡ *di* 'mother') || Alt. ***la/är*** > Narrow Turkic *-lar* / *-lär* ({Grønbech 1979} sx. of nomina collectiva   plural sx. of nouns and finite verbs)' (Gabain 195O, 84: "in sorgfältigen Handschriften [of OT] wird dies Formans mit dem Nomen nicht verbunden geschrieben"); Mong. *-nar* / *-ner*, suffix of pl.; it may be genetically identical with Written Mong. *nar* in *nar-mai* 'all, everything'; Manchu *lar seme* 'densely, in multitudes' || ?? Drav. *-nar* > (unless a variant of the sx. *-ar*): Old Tamil *-nar*, *-ńar*, pl. sx.: *vilai̯-nar ~ vilai̯-ńar* 'merchants', *makir̂-nar* 'chieves of the agricultural tract', *munai̯-ńar* 'warriors', *ki̯ḷai̯-ńar* 'relatives', *vinai̯-ńar* 'farmers, servants', *pakai̯-ńar* 'enemies'. The formative of pl. in Turk., Mong., Svan and (?) Old Tamil is obviously of analytic origin because it is identical with autosemantic words (Georgian, Manchu).

§ 21. ***rV yE*** (= ***rV y{i}ʔ***), a compound prn. of plurality \ collectivity > IE *-ēr/*-r̥*, 3 pl. ending of the non-active paradigm of the verb > Ht *hi*-paradigm, Narrow IE perfect > Old Ind. *-ur*, Av. *-arə*, Tocharian B *-āre*, A *-ar*, Latin *-ēre*, *-e(:)runt* (e. g. NaIE *wid-r̥ ~ *wid-ēr* 'they have seen' > OI *vídur*, Av *vīðare* id., L *vidēre* 'they saw') || Kartv.: Svan *-är*, *-īr*, *-ēr*, *-äre*, sx. of nominal pl. || HS: Cush.: Sidamo *-ri*, *-re*, pl. of adjectives and pronouns || Alt.: Tung.: Manchu *-ri*, pl. sx. of nouns, Nanay *mзpз-ri* acc. pl. of the refl.

pronoun 'sich, **себя**'; Turkic *-ŕ, pl. marker in pers. pronouns: *bi-ŕ 'we' (> Narrow Turkic *biz, Chv e-ḇir), *si-ŕ 'ye, vos' (> Narrow Turkic *siz, Chv әсир e-ẓir) || Ur.: Old Yukagir mi-r 'we', Finno-Ugric *-rV, sx. of collectivity: Highland Cheremis lülpər 'alder-grove, alder-forest' (<> lülpə 'alder'). We suppose that this marker of plurality / collectivity goes back to a N compound: theme-focalizing **rV** + pluralizing **yE** (= y{i}?) 'these, they'.

§ 22. **tV** - marker of plurality ('together'?) > K *-ta, plural ending in the oblique cases > Old Georgian, Georgian -ta id.; *-t, sx. of pl. subiecti in verbs of the 1st and 2nd person > Old and New Georgian, Megr., Laz -t, Svan -d; the same sx. functions (in all K lgs.) as a verbal marker of pl. obiecti (with morphological positional limitations that differ in different lgs.) || HS *-t-, marker of plurality (coalesced with the *t-endings of different origin and functioning, incl. *-t of the fem.-and-inanimate gender, N **ṭǟ** [dem. prn. of non-active objects] [q.v.] and N **{ʔ}atV** 'female, woman' [q.v.]) > Cush. *-(V)tV/*-VttV, sx. of pl. || Ural. *-t-, , pl. of nouns || Alt.: Mong. *-d, pl. ending of nouns. In this case the analytic origin of the morpheme is suggested (but not proved) by its position in Katvelian verb conjugation, where it is separated from the marker of person: Old Georgian vi-km-t 'we do' (vi- 1st person subiecti + -km- 'do' + -t pl. <> vikm 'I do', h-kmen-it 'fecistis' <> h-kmen 'fecisti', Svan χw-ari-d 'sumus' (χw- 1st pers., -d pl.) <> χw-ari 'sum'. The same is true when -t denotes the pl. of the object: Old Georgian mo-u-ḳlav-t 'he has seen us'. It means that the pl. marker cannot go back to a synthetic part of a personal pronoun.

§ 23. **ʔ{o}mV** 'kin, clan, everybody'. This word is the source of the IE ending of gen. pl. *-ōm, of the *-Vm-plural in several Cushitic languages and in the Drav. suffix *-um 'all': IE *-ōm, e. g. with *-o-stems: Gk λύκ-ων, OHG wolf-o, Lt vilk-ū̃, OCS влъкъ wlьk-ъ 'of wolves', Vd carāth-ām 'der beweglichen', L deum 'of gods'; with *-n-stems and *-r-stems: OI śun-ām, Gk κυν-ῶν 'of dogs', L homin-um 'of men', Lt akmen-ū̃. OCS камень kamen-ъ 'of stones', Gt tuggōn-ō, OHG zungōn-o 'of tongues'; in several lgs. the ending *-ōm was lengthened due to metanalysis: OI -nām, L -ōrum (OI vr̥kānām, L lupōrum 'of wolves'); HS: East Cush.: Dasenech -am ~ -ām, Arbore -mé ~ -má, endings of pl.; South Cush.: Iraqw -ēmo id.; Drav. *-um 'all' > Tamil ellā-m 'everything, everybody', yāvum 'everything', Td -m 'all, any', etc. The same etymon survives as a root in many languages: HS: S *ʔumm-(at-) 'kin, clan' (Hebrew ʔumˊm-ā 'tribe', Arabic ʔumm-at- 'many people; people, nation'); East Cush.: Af ummān 'all, every' || IE *ʔ|Hom- 'every, all' > Latin omnis id., Armenian amén amên 'all', etc. || Alt.: Mong. *omug ~ *obug 'clan', Turk.

ōba 'clan, extended family' || Uralic **{o}ma* > Taz Selqup *ǭmɨ* 'tous les autres'.

C. Origin of verbal affixes

§ 24. ***mi** 'I' > IE and Uralic **-mi*, **-m* (1 sg. marker in verbs), Kartv. **m-* 'me' (verbal prefix). These affixes go back to a N pronoun (i.e. a word), because ***mi** survives as a pronoun in almost all daughter-families.

§ 25. ***ṭ{ü}** (> ***ṭi**) and its assibilated variant ***ś{ü}** (> ***śi**) 'thou' gave rise to verbal endings of the 2 sg. in many langages (incl. IE **-si* and *-s*) and survive as pronouns in almost all branches of Nostratic.

§ 26. ***HoyV** (= ***hoyV**?) 'by me, my' underlies the IE ending **-H* in 1 sg. perfecti, the Ht ending *-hi* (and possibly the laryngeal component of the Narrow IE ending **-ō* of 1 sg.), the HS (Semitic, Cushitic) **ʔ-* (1 sg. prefix), Sem. **-ya ~ *-ī* 'my' (possessive sx. of 1 sg.), Kartv. **hw-* (> Georgian *v-*, Svan *χw-*) (verbal prefix of 1 sg. subiecti). It survives as a pronoun in Eg *wy* 'I'. This fact and its mobility points to its original analytic status. For more details see Dolgopolsky 1984.

§ 27. ***n/n̓{á}**, prn. of collectivity and plurality > IE: verbal endings of 3 pl. **-(e)nti* and **(e)nt* 3 pl. (see above).

§ 28. ***n/n̓aʕi** 'to go' (→ 'to go to do sth.') > IE **-n-* (infix of the verbal present stem) || HS: possibly Beja *-n*-present, unless it goes back to the construction **ʔan* + verbal stem || Alt.: Tung **-nā-/*-nē-* (verbal sx.) 'go to [do sth.]' > Ewenki *duku-nā-* 'go to write' (from *duku-* 'write'), Ude *wakča-na-mi* 'I go to hunt', WrMc *taci-ne-* 'go to learn'. This N root survives as a word in several languages: Eg *nʕy* v. 'go\travel (somewhere)', K **n-* v. 'want, desire, wish', etc. (for more detals see Dolgopolsky 1992).

§ 29. ***c̣/c̣i**, ***ć/ći** or ***ĉ/ĉi**, marker of verbal frequentativity / iterativity > IE sx. **-sḱ-*, marker of iterativity / frequentativity (> Hittite iterative/durative sx. *-sk-*, Narrow IE **-sḱ-* as a marker of the imperfective aspect ("present") (e. g. **ĝnō-sḱ-ō* 'I recognize, know') || Uralic: FU **-će-*, suffix of frequentative verbs: F *-tse*, Vefsen Lappish *-š-*, sx. of durative verbs and verbs of state, Moksha *-śə-*, Erxa *-śe-*, sx. of frequentativity || Alt.: Mong. **-ci-*, sx. of verbal intensity, Tung. **-ci-*, sx. of intensive and durative verbs. It is likely that this N particle goes back to some aux. verb (forming a construction that meant ≈ 'used to..., tries to...'), e. g. to the verb ***ĉih{i}** 'to carry' [> Jibbali *ŝhy*, Mehri *ŝhw|y*, Shilh *asi̯*, Izdacen *asi* 'carry', Middle Korean *cí-* 'carry on the back, bear', Arbore *sihis-* (imv. *síh*), Kartv. **c̀-*, Drav. **cī- / *ciy-* 'give'].

§ 3O. ***{ṣ}Ew[0]V*** 'to want', 'to beg' (→ desiderative) > IE: NaIE **-s-*, **-sy-*: [1] volitive sx. **-s-* 'want to' > Old Ind. *-s-* in *śuśrū̄-ṣatē* 'he wants to hear', Old Latin *viss-ō* > Latin *vīs-ō* (**weid̯-s-ō*) 'want to see', Goth. *ga-weisō* 'I visit' (→ 'want to see'); [2] in several lgs. this **-s-*, **-syo-* changed into a marker of future: Greek *-σ-* in δείξω 'I shall show', λείψω 'I shall leave', Old Latin *dixō* 'I shall say', *faxō* 'shall do', *capsó* 'I shall take', Lith *duos* 'will give', Old Church Slavonic *bišęšte-je* 'future' || Alt. sx. with voluntative or optative meaning: Mong. **-su*[:] / **-sü*[:] (**ora-su* 'let me enter!'), Turkic **-sun* / **-sün*, 3 sg. optative, Tung. **-su*, marker of imperative (2 sg., 3 ss.) in several archaic verbs. This N etymon survives as a verb in Turkic **săb-* 'love', (?) Sem. **šwʕ|γ* 'cry for help' (for more details see Dolgopolsky 1992).

§ 31. ***H{e}ṭV*** 'make' (> causativizing morpheme) > A **°eťV* > T **et-* v. 'make' > OT *et-* v. 'make, create, perform, organize'; ?? HS ***ʔt* > Chadic **taʔ-* v. 'make' (> Daffo-Butura *taʔ* 'build', Buchuma *ḍa*, Bata *ta* 'make'); ? Sem. **ʔty* > Arabic *ʔty* (pf. *ʔatā*) 'undertake (a thing), make (it)'. This N word was grammaticalized in Uralic, Alt. and Drav. to a causativizing suffix of verbs: Ural. causativizing verbal sx. **-tt-* > F *-tta-/-ttä-*: *istuttaa* 'setzen, pflanzen' (<> *istua* v. 'sit, sit down'), etc.; Alt.: Turkic **-t-*, causativizing and transitivizing sx.: OT *-t-*: {Cl.} *oqı-t-* 'make so. recite\read' (<> {Cl.} *oqı-* v. 'recite\read'); D **-tt-*, causativizing sx.: OTm *selutt-* v. 'make so. enter' (<> *sel-* v. 'enter').

§ 32. ***SuwYV*** 'to push, cause' (→ 'to ask for', → causative) > IE **seu̯h-/*suh-* > Narrow IE **sewǝ-* = 'set in motion' > OI *sū-*: *súvati* 'sets in motion, vivifies, urges', Hittite *suwāy-* 'push, urge'; Alt.: Tung. **sub-* = 'push' > Manchu *subada-* 'push each other', etc.; (?) Drav.: D **°co{v}-* > Kannada *sō*, *sōvu*, *sōhu* 'drive off, chase away', etc. |||| This N word was grammaticalized as a marker of causativity: HS **sV-* > Sem. **šV-* prefix of causative verbs (S̲-stems), Eg. *s-* id., Berber **sV-* id., Cush. px. **-sV-* id. [following the personal pxs.] (in verbum finitum of the prefix-conjugated verbs), sx. **-sV-* [preceding the sxs. of person-gender-number] (in verbum finitim of the suffix-conjugated verbs and in some nominal forms of verbs); ? Alt.: Japanese (incl. Ryukyu ds.) *-s-*causative: J *noko-s(u)* 'leave behind' <> *noko-r(u)* 'remain'.

§ 33. ***t{a}wV*** 'head' (→ 'oneself') > Kartvel. **taw-* 'head' > Old and New G *tav-*, Laz *ti-* 'head', Megrel *ti-ša* 'to himself, home' (lit. 'into head'); HS: Omotic: Sezo *tu-wi*, Chara *toya* 'head'; South Cushitic: Iraqw *ti* 'oneself; each other'. In HS and in Anatolian IE this N word turned into a reflexivizing affix: HS: Sem. prefix **t-* and infix **-t-* (following the first radical) with the reflexive (→ reciprocal, passive) meaning: Akk. *iCtaCVC*, Arabic

yaCtaCiCu (VIII form), Biblical Aram., Jewish Aram. *yiṯCəCi/eC*, Syiac *nɛṯCóCaC*, Geʿez *yətCaCaC*, etc.; Berber **tw-* ~ **t-*, prefix of passivization (Twareg *twəǵrъw* ~ *tъǵrъw* v. 'be found'; Cushitic **-t-*, reflexivizing (→ passivizing) prefix of prefix-conjugated verbs (e. g. Beja present *-ētlīw* 'burn oneself' from *-liw* vt. 'burn') and the first element of the suffixal part of suffix-conjugated verbs (Sidamo *as-iḍ-* v. 'make for oneself, make oneself' ◇ *as-* v. 'make'); IE: Hieroglyphic Luwian *-ti* 'sich', Luwian, Lycian *-ti* (reflexive particle), Hittite *-z, -za* id.

§ 34. ****woy[ʔ]E* ~ **wo[ʔ]yE*** 'power, ability' > IE **weiH-* > NaIE **weiə-* / **wī-* 'strength, force' > OI *´vayas* 'energy, strenghth, power', Gk ἴς (with a long ῑ) 'strength, force', L *vī-s* (a̲ *vim*) 'force, strength, power' || HS: Sem. **wʔy* > Arabic *waʔy-* 'strong beast', *wʔy* (pf. *waʔā*, 3m ip. *ya-ʔī*, n. act. *waʔy-*) 'promise, threaten' || U: FU **woye* 'be able, (?) be strong' > Finnish *voi-*, Est. *või-* 'be able', Finn. *voi-ma*, Est. *võim* 'power, might', etc. || A: Turkic **ū-* or **u[:]y-* > Old Turkic *ū-* 'be able, capable' ||| This pN word may be the source of the passivity / intransitivity marker in daughter-lgs.: HS **wV-* ~ **-u[:]-* > Eg. *-w*, verbal suffix of the passive form || Sem.: (1) **w-* as the additional first radical of verbs of state and quality: **w∣yṭb* 'be good' (> Hb., Aram., Syriac *yṭb*) - cp. **ṭāb-* 'good' (> BHb *ṭōb3*, etc.); (2) **-u-* ~ **-ū-* as an apophonic prefixnfix of passive.: Central Sem. **y-u-12a3-* 3 m. passive of the basic stem [> Arabic *y-u-qtal-u* 'he is∖will be killed'], **y-u-ša-12a3-* 3 m. pass. of the caus. S̲]-stem (> BHb *y-ɔ-šlam* 'it will be completed∖restituted', Ar *y-u-slam-u* 'he will be kept safe'), etc || U: FU **-wV-* (~ **wVy-*?), passivizing and intransitivizing verbal sx.: Finn. *-u-/-y-* (*näky-* 'be visible' ← *näke-* 'see', *kaatu-* 'fall, overturn' ← *kaata-* v. 'fell'), Est. *-u-/-i-* (passive / intransitive: *kordu-* 'repeat oneself, recur' ◇ *korda-* vt. 'repeat'), Norw. Lappish *gaw´dnu-* 'be able to be found, exist' ← *gawd´nâ-* 'find', Erzya *kadovo-* 'remain' ← *kado-* 'leave, desert', etc. || A: Turkic **-u-/*-ü-*, suffix of reflexive verbs and of denominative verbs of quality ('become X'): Old Turkic *säš-ü-* 'losmachen' ← *säš-* 'lösen', *bay-u-* 'become rich' ← *bay* 'rich', etc. || Tung. **-bu-*, verbal sx. of passivity (and causativity): proto-Tung. **ŋūn-bü* 'be said, cause to say' > Nanay *umbu-* 'be said' ← *un-* 'say' || Gilyak: Amur Gil. *v-*, Easy Sakhalin Gil. *w-*, prefix of the reciprocal voice ◊ Illich-Svitych 1967: 364 (**woj{H}л* **сила**: IE, T, BF), Illich-Svitych 1971: 13 s. v. **Пассив** *wл*.

§ 35. ****me[y]n̄U*** 'oneself, one's own', 'body' > IE: NaIE **monwo-/?*menu-* 'alone' > proto-Greek **μόνϝος* > Greek: Attic μόνος, Ionic μοῦνος id. || Hittite *minu* 'alone' || HS: Eg. *mn* 'a such and such' ({Vc.} 'un tel') (x N ****män̄u*** 'man, male') > Bohairic Coptic -ман *-man* in пафман *papʰman*, паѳман *patʰman*, etc. 'a certain person ∖ thing' || Cush.: Dahalo *móni* 'self', East

Cush.: Sidamo *mann-imma* 'body' || ? Berber **-mān* 'soul, person' (x N ***män̄u** 'man, male') > Ahahhar *imān* pl. 'soul, person', *imān īn* 'myself', Kabyle *imān*, Nefusi *imān* + ppa. '-self' (myself, himself, etc.', Ghadamsi *iman* (reinterpreted as grammatical pl.) 'person', '-self' || A: Tung, **mēn* 'oneself, one's own' > Ewnki *mз̄n* 'one's own', *mз̄nзkзwn* 'oneself', Solon *mз~*: id., Lamut *mз̄n* 'one's own', Negidal *mз̄n* id., *mз̄n* + ppa. 'oneself (sich, **себя**)', Orochi *mзmi* id., *mз̄n* 'one's own, to oneself', Udehe *mзniŋī*, Orok *mзnз̄* 'one's own', Udehe, Nanay *mзnз*, Ulcha *mзn(з)* id., 'oneself (selbst, **сам**)', Manchu *meni meni* 'anyone, each, by oneself (**всякий, каждый, сам по себе**)' || Mong. **mön* 'the very same, real, true' || Drav. **mēn̠i* 'body' > Tamil *mēn̠i*, Malayalam *mēni* 'body, shape, beauty', Telugu *mēnu*, Kolami *mēn*, Naykri, Nayki, Parji *men*, Gadba *mēnu ~ mēn*, Gondi *mēndur*, Kurukh *mē̃d ~ mēd*, Malto *mēϑ* 'body', Konda *mēndol* 'human body' ||| This N root may underly reflexive-passive formatives in the IE and HS verb: IE: Narrow IE **meno-/*-mno-*, suffix of medial-passive participles > Old Ind. *bōdha-māna-ḥ* 'wachsam', Greek πευθό-μενο-ς 'aware', participia praesentis mediopassivi from Old Ind. *bōdh-*, Greek πευθ-; Latin *fē-mina* 'woman' (→ *'sucked one'), *alu-mn-us* 'nursling, foster-child' (→ *'fed one'), as well as 2p passivi *-mini* (finite verb form → participle); Slavic **-mъ* m., **-ma* f., **-mo* ntr. (OCS **везомъ** *vezo-mъ*, prtc. praesentis passivi 'transported'), Lith. *neša-ma-s* 'carried'; possibly Anatolian IE: Luwian *kes-ama-* 'combed', Hier. Luw. *asīma-* 'loved' || HS: Cush. **m-*, prefix of the passive-reflexive (and collaborative) form (stirp) of verbs: Saho *-umuʕug-* 'be burried' ← *-uʕug-* 'bury', *-imfiteħ-* 'be untied' ← *-ifteħ-* 'untie', *-ommokōm-* 'take part in a race' ← *-ukum-* 'win'; in Beja it means 'do together with sb., help doing sth.' (→ reflexive'): *-mōlāw-* 'burn sth. together (with sb.) <> *-liw-* vt. 'burn', *-mdabāl-* 'gather together (with sb.)' <> *-dbil-* 'gather'; in Afar this affix is a sx.: *fiyyīme* 'be swept' <> *fiye* 'sweep', *kamadime* 'be tied tightly' <> *kamade* 'tie tightly' || Berber **m-* , px. of the reciprocal-reflexive-passive stirp: Rif *m-ẓarn* 'ils se sont vus' ← *-ẓar-* 'see', Twareg *mъnkъḍ* 'être coupé' ← *ənkəḍ* 'couper', *mъkš* 'be eaten' ← *ъkš* 'eat', *makъr* 'be stolen' ← *akər* 'steal', with the meaning of reciprocity: *mъǵъn* 'faire halte' ('kneel together with the camels') ← *əǵən* 'kneel' (of camels) || Alt.: North Tung. **-m-* > Ewenki *-m-*, verbal sx. of the passive voice: Aldan Ewenki *cukca-m-* 'be broken' ← *cukca-* 'break', Podkamennaya-Tunguska Ewenki *yaŋgu-m-* 'be broken' ← *yaŋgu-* 'break', Lm *-m-*, sx. of the passive voice; Greenberg 2000:237 mentions M sx. of reflexivity *-ßen* that I have not been able to find in the available literature.

D. Origin of nominal derivational affixes

§ 36. ***mA**, marker of nominalized syntactic constructions (= subordinate sentences), nominalizer (originally a prn.) that formed analytic equivalents of nomina actionis, nomina agentis and other derived nouns > IE *-*mo*-, sx. of denom. and deverbal derivates: NaIE *dʰū-mo-s 'smoke' (← *dʰū- 'to blow'), Hittite *werite-ma* 'fear' (noun) || Uralic *-*ma*/*-*mä*, derivational sx. of deverbal and denom. nouns\adjs. and of prtcs. (e. g. FU *oδa-ma n. 'sleep, dream', **śur(e)-ma* 'death') || Alt.: Turkic *-*m* / *-*ım* / *-*im* / *-*um* / *-*üm*, suffix of nomina actionis (Old Turkic *öl-üm* 'death', *ičim* 'a single drink'), Mong. *-*m* in nomina actionis, etc. || Drav. *-*may*, sx. of derived abstract nouns (Tamil *poṛu-mai*, Malayalam *poṛu-ma* 'patience, self-control', Old Kannada *mudi-me* 'dominance') || HS *mV-, prefix of derived (mainly deverbal) nouns > Sem. nomina actionis **ma*12*a*3- [Arabic *maʔkal*- '(act of) eating', Hebrew *maʔᵃk̲āl* 'food'], Sem. *mV- (a prefix of participles), Eg *mV*-, px. of derived (deverbal and denom.) nouns (nomina loci, instrumenti), etc. || Kartv.: *m-, *me-, prefix of participles and nomina agentis > Old Georgian *m-çe* 'helper', *m-dgom-i* 'who stands'; *m-...-*e*, *me*-...-*e* and *m-...-*el*-, circumfixes of participles. The mobility of the etymon proves its original analytic status.

§ 37. ***ṭi**, syntactic pc.: it is combined with verbs to build analytic *nomina actionis* > IE: NaIE *-*ti*-, sx. of *nomina actionis*, e. g. **mn̥-ti-s* 'thought' (abstract noun) (from *men- v. 'think') > OI *mati-ḥ* 'mind, intellect', Av *mainiš* 'memory', Latin *mens* (gen. *mentis*) 'mind', Gothic *ga-munds* 'Andenken, Gedächtnis', OCS *pa-mętь* id., NaIE **ĝnō-ti-(s)* 'knowledge' (← *ĝnō- v. 'know') > Greek γνῶσις 'knowledge, inquiry', OI ´*pra-jñā-ti-ḥ* 'knowing the way to' (n. abstr.), OHG *ur-c(h)nāt* 'recognition, agnitio', OCS *po-znatь* 'cognitio', as infinitive: OCS *zna-tь*, Lt. *žinó-ti* 'to know' || HS *-*t*- and *tV-, suffix and prefix of *nomina actionis* : [1] suffix *-*t*- > Sem. *-*at* id., suffix of deverbal abstract nouns, in numerous patterns, e. g. in the pattern *1*V*2*a*´3*at*-: Hebrew *cᵊd̲ā´k̲ā* 'righteousness', Syriac *yᵃd̲aʕ´tā* 'knowledge', Arabic *ḥarakat*- 'movement'; Eg -*t* [*-*Vt*], sx. of nomina actionis (and other abstract nouns) in different nominal patterns; B nomina actionis (used also as infinitives) of the form *tV-...-*Vt*, where the prefix *tV- goes back to the prefixed article and therefore does not belong to the N etymon in question, but the sx. *-*Vt* may belong here; Cush.: Bilin -*At*, -*t*, sx. of abstract nouns: *bír-At* 'heat', *fAŕh-At* 'joy', *gÁn-it* 'age', Beja -*ti*, sx. of nomina actionis: ´*tamti* 'act of eating'; [2] HS *tV-, prefix of deverbal abstract nouns: S *tV- id.: Arabic masdar *taδkār-un* 'to remember, das Erinnern' (← *δkr 'remember'),

Geʿez *tafdāl* 'Vollendung', Hbrew *tagˊmūl* 'compensation', Syriac *takluˊšā* 'fight' || U *-tV ~ -ttV, sx. of nomina actionis (→ infinitive): Finnish sx. of the "1st infinitive": -ta/-tä, -da/-dä, Chulym Selqup *oldöt* 'Anfang' (cp. *oldam* 'I begin'), etc. || Alt.: Turkic *-ti/*-tɪ, a rare sx. of deverbal nouns: Old Turkic *ögdī* 'praise' n. from *ög-* v. 'praise'; Tung. *-te in *bu-te 'death, illness'. The original analytic status of the morpheme is proved by its mobility.

§ 38. ***ṭV**, marker of passive participial constructions (verb + ***ṭV** = analytic construction with the meaning of past participle or passive verbal adjectives) > IE: NaIE *-to-, marker of verbal adjectives (mostly with passive meaning), which in some daughter lgs. were incorporated into the verbal paradigm as passive participles: NaIE *ĝnō-to-s ~ *ĝn̥-to-s 'known' || Ur.: FU *-VttV nomina patientis (obiecti) [> passive participle and sim.] >> F *laulettu* 'sung', *tehty* 'done', Hung. *olvasott* 'gelesen', etc. || Alt.: Turkic *-t ~ *-tu/*-tü ~ ? *-ti, sx. of deverbal adjectives with passive meaning: *ögi-t 'ground grain', etc.; Tung *-ta / *ʷ-te, sx. of derived nouns (passive result of an action): Ewenki *ɜmȝn-tɜ* 'remainder' (i.e. 'what is left') || HS: *ṭV- prefix with the original meaning of nomen obiecti cannot be distinguished from metonymic usage of nomina actionis with the prefix *ṭV- (see above): Hebrew *taǵmūl* 'compensation' is both a nomen obiecti and a nomen actionis. Therefore the mobility criterion cannot provide decisive evidence.

§ 39. ***n̄V**, marker (pronoun) that formed analytic equivalents of passive participles (→ derived passive verbs): IE: NaIE *-no-, sx. of passive partiples and deverbal adjectives: NaIE {Brg.} *pl̥̄-ˊno- ~ *plē-no- 'filled, full' > [1] *pl̥̄-ˊno- > OI *pūrˊṇa-ḥ*, Ir *lán*, Gt *fulls*, Lt *pílnas*, OCS плънъ *plъnъ*, [2] *plē-no- > L *plēnus*, OI *prāṇa-ḥ*; productive sxs. of daughter-languages: OI *bhind-ăna-ḥ* and pf. prtc. *bibhid-ăn-ʼs ← bhid-* 'bind', Gmc *-ono-/-eno-: Gt *waúrÞ-an-s*, OHG *gi-wortan*, ON *orðenn* 'geworden', Gt *bit-an-s* 'bitten', OCS несенъ *nes-en-ъ* 'carried, getragen', забъвенъ *za-bъv-en-ъ* 'forgotten' || HS: S px. of passive-reflexive derived participles and verbs: [1] *na-, px. of passive-reflexive participles and (in WS lgs.) of the new perfect (→ verbal adjectives) of the passive-reflexive N-pattern (Hb niphʿal, Ar 'infaˊala, 7th form): BHb *ni-šˊbār* 'broken', *nišˊbar* pf. 'was broken', Ak *naprusu* [verbal adj.'] 'divided'; [2] *-n- (following the personal px.) in the finite verb (Ak praet., WS new imperfective): Hb *yiššāˊber* (-šš- < *-nš-) 'is \ will be broken' (new imperfective), *wayyiššāˊber* '(and) was broken', Ar *ya-n-qaṭilu* 'is \ will be killed', Ak *ipparis* (-pp- < *-np-) 'was divided'. In Ar the pf. form was restructured on analogy of the ipf., hence -n- in the pf.: *ʔin-kasara* 'was broken into pieces', *ʔinhazama* 'was beaten' || K {K} *na-, px. of past passive participle: OG *na-ban-i* 'washed, gewaschen', *na-guem-i* 'beaten'. *na-ḵuet-i*

'abgeschnitten', *na-šob-i* 'born', Sv *na-ḳwem* 'getragen' (of garments), *na-sdug* 'geflochten' || A: Tg: Ewk *-na/-nɜ/-no*, result of an action: *dukū-na-w* 'written by me' (lit. 'my written') ← *dukū-* 'write' || T {Cl.} *-(V)n*, e. g. OT [MhK] {Cl.} *tevrēn* 'threads which are twisted to make waistbands' ← *tevir-* v. 'twist'. The mobility criterion proves the analytic origin of the affixes in question.

§ 40. ***ʔVnṭV*** 'he', relative 'he who, that which' (in daughter lgs.: → a sx. of participles and derived nomina) > IE *-ent-/*-ont-*, suffix of active participles || HS: Cush.: Bilin *-Antā*, suffix of nomina agentis (*fÁd-Antā* 'seaman', *ǯíb-Antā* 'seller', *kúw-Antā* 'murderer') || Uralic: Samoyed *-ntä*, sx. of active participles and nomina agentis (**ilä-ntä* 'living, alive') || Alt.: Turkic *-nt′ɪ/*-nt′i*, sx. of participles or deverbal adjectives || Drav. *-VṅṭV*, sx. of gerund. Survives as a word in Berber *ʔu|inta* (? ~ *nVtta) 'he, she, it' (Twareg *ənta*, etc.), Sem.: Gz *ʔənta* rel. prn. f. 'who, that which' (reinterpreted as f. due to the consonant *t*).

§ 41. ***ç|ća* ~ *c|ća*** (= ***Hiç|ć|c|ća***?) marker of relative constructions [(in descendant lgs.: → sx. of adjectives \ singulatives (→ diminutives)] > IE: Narrow IE *-isko-*, sx. of relative adjectives: Gmc *-isk-*, Lt *-iška-*, Sl *-ьsk-* || HS: East Cush.: Oromo *-ičča* ~ *-iča*, Burji *-aččo*, *-iččo*, *-čo*, Sidamo *-iččo*, *-ičča*, *-čo*, Dasenech *-(V)č*, suffix of singulative || Uralic *-ćV*, qualifying suffix: F *karitsa* 'lamb' (cp. *karja* 'cattle'?), etc. || Alt.: Turkic *-c*, suffix of diminutives and forms of endearment: Old Turkic *ögüčüm* 'mein Mütterchen' (← *ög* 'mother'), Korean *-ci:apaci* [*abaǯi*] 'Väterchen'. It is quite possible that this etymon goes back to the N noun ***Hic|ć|ç|ćχV*** 'father, head of a family' (> IE *h|ʔesxo-s* 'master', Uralic *ićä* 'father'). For the semantic change compare Arabic **ʔabū* 'father of' → marker of quality (*ʔabū-l-ʕağabi* 'extraordinary person', lit. 'father of wonder', *ʔabū-marrata* 'Satan', lit. 'father of force').

§ 42. ***ḷe[ʔV]*** (or ***le[ʔV]V***?) 'being, having' → analytical (> synthetical) adjectivizer (→ formant of adjectives) > Kartv: [1] *-l-*, *-il-*, suffix of deverbal adjectives > Old and New Georg. *-il-*, Megrelian *-il-* ~ *-ir-*, suffix of participles: Georg. *çer-il-* 'written', Megrelian *ṭaχil-* 'broken', *ulir-* 'gone (who has gone away)', Kartv. *ḳb-il-* 'tooth' (→ participle 'biting', cp. Kartv. *ḳb-in-* v. 'bite') > Georg. *ḳbil-*, Megrelian *ḳɜbir-* ~ *ḳibir-*, Laz *ḳibi(r)-* ~ *ḳibr-* ~ *ḳirn-* ~ *čirb-* id., Kartv. *šwil-* 'child' (→ 'born' ← *šw-* 'give birth') > Old and New Georg. *šwil-*, Laz *skir-* ~ *sḳir-* 'son, child', Megr. *oχora-sḳil-i* ~ *oχora-sḳir-i* 'brother-in-law, sister-in-law' (lit. 'house's child', cf. *oχor-i* 'house'); [2] Kartv. *m-...-el-*, circumfix of nomina agentis: Old Georg. *m-tχov-el-i* 'one who asks (bittend)', *m-targmn-el-i* 'who translates, transla-

ter', *ma-šeneb-el-i* 'who builds', *me-ṭqw-el-i* 'saying (sagend)', Megr. *mačar-al-*, prtc. prs. 'the writing one, writer', *ma-ʕvil-ar-i* 'murderer', *ma-gurap-al-i* 'teacher'; [3] Svan *-la* '(a person) from' [with names of villages, places]: *ädiši-la* 'a person from Ädishi, ein Ädischer', *mästiä-la* 'ein Mästier, a person from Mästiä' || IE *-l-, sx. of adjectives: Latin *-il-* id. (*hum-il-is* adj. 'on the ground' (← *humus* 'ground, earth, soil'), *-īl-* id. (*sen-īl-is* 'of an old man, senile'), *-lo-*, sx. of nomina agentis: *legulus* 'fruit-gatherer' ← *leg-o* v. 'gather'; OHG *-l*, sx. of nom. agentis: *tregil* 'carrier' ← *tragan* 'to carry'; Slavic m. *-lъ / f. *-la / ntr. *-lo, sx. of past participles: *bɪ-lъ* 'who was', *nes-lъ* 'who carried', etc.; Tocharian A *-l*, Toch. B *-lye*, sx. of deverbal adjs.; Old Ind. *pēśálaḥ* 'artificially formed, decorated, beautiful' < NaIE {Eul.} *poi̯ḱVlo-* 'verziert' ← NaIE *pei̯ḱ-* 'hew out, carve' [> Old Ind. prs. *pini´ś-ati* id., etc.]); *bahúlaḥ* 'thick, dense, wide, bundant', cf. Old Ind. *báhuḥ* 'much, abundant, great, large'; Greek *-ιλ-*: ποικίλος 'many-coloured' (akin to OI *pēśálaḥ* < IE *pei̯ḱ-* 'hew out, carve') || Anatolian IE: Hitt. *atta-la-*, Hier. Luwian *tata-li-* 'father's, patrius, väterlich', Luwian *ulant-alliya-* 'mortal' (← *ulanti* 'death'), Lydian *mane-li-ś* 'Manes's' (← M*aneś*) || Ural. *lē- or *le-* 'be, become' > Estonian *lee-* 'become', Finnish *lie-*: 3 sg. *lienee* 'may, perhaps is'; Norw. Lappish *lǣ-*, *læ-*, *lække-* 'be' (copula), 'exist, occur'; Lowland Cheremis *liya-*, Highland Cheremis *liä-* 'be, become'; Old Permian *lɔ-*, Ziryene *lo-*, Vptyak *lu-* id. 'become, occur'; Hung. *lë-*, dial. *lé-*, *lő-*, *lőj-* 'be, become', Hung. *lét* 'being, existence' || proto-Yukagir {Nikolyeva} *lə-* 'be' > Yukagir *lə-* 'be; be (there is)', *lī-* 'have' (*-ī-* is a sx. of vt.) || Ural. adjectivizing *-l̥- (or *-l-?) 'that of X, having X': FU: Finnish *vetelä* 'watery, wet, fluid' (← *vete-* 'water'), Estonian *vedel* 'liquid, fluid, thin [of a liquid]'; Lowland Ceremis марла *mar-´la* adj. 'a Cheremis' (cp. *ma´riy* 'Cheremis'); Permian **yumVl* 'sweet' (← **yum* 'dough made of rye-malt') > Votyak *кмал* *yumal* 'sweet, unleavened', Ziryene *кмов* *yumov*, dial. *yumal* id., 'not sour'; Ostyak *-l̥-*, e. g. > Ostyak {Collinder} *śarnəŋ-qŭr-yĭtā̱l ort* 'a hero with golden insteps [*yĭt* 'instep'] (Coll. does not indicate the dialect of Os, which is crucial for the et. of the sx.), Eastern Ostyak *wiŋkä̱l̥i ~ wiŋkl̥i* 'hook' ({Lh.} 'Haken zum Aufhängen') ← *wiŋtä ~ wiŋktä* 'to hook, be caught on (задеть, зацепиться)' || Samoyed: Nganasan *ŋamta-lā* 'horned' (← *ŋamta* 'horn'), Taz Selqup *-lä*, suffix of gerund (deverbal adverb, like Fr *en ...-ant*): *sūriĺlä ilɛntak* 'by hunting I shall live', *ō̱ntalpɨlä laŋkalpa* 'being happy, he cried out' || ? Yukagir: *l*-suffixes of deverbal nouns, e. g. [1] Tundra Yuk. *-ol/-ûol*, sx. of nomina resultati: *id́ilwey-kiyol* 'what Idilwey gave, given by Idilwey', *met-yanaspeyreyûol* 'what I have forgotten, forgotten by me', [2] *-l*, sx. of nomina actionis (masdar): Tundra Yuk. *saɣane-l* 'sitting, staying; to sit\stay', *ewie-l* 'doing,

to do', *kel-u-l* 'coming, to come', Kolïma Yuk. *ayil* 'shooting, a shoot', *yarji-l* 'bathing', *ald-u-l* 'cursing, a curse' ‖ Alt.: Turkic *-l*, suffix of deverbal adjectives (and substantivized adjectives), e. g. *kɪŕɪl* 'red' (> Old Turkic *qɪzɪl*, Chv xĕpлĕ *xbrlb*, etc.) ← *kɪŕ-* 'be red, be red hot' (> Old Turkic *qɪz-*, etc.), Old Turkic *ükil* 'numerous' ← *ük-* 'heap up, accumulate' ‖ Mong. *-l*, suffix of deverbal adjectives (and quality-bearing nouns): Written Mong. *tanil* 'familiar person, an acquaintance' ← *tani* 'know, be familiar with' ‖ Korean *-l*, *-ɪl*, suffix of participia futuri ‖ ?? Drav.: Malto *-le*, sx. of past participles: *tuǹḍ-le* 'who saw' ‖ HS: EC: Rn *lē-aɦe* (*aɦe* is 'be', *y-aɦe* is 'is') 'have (some quality), be (of some kind': *ǯíra kumurrőné lĕ-yaɦe* 'Jira has wealth' = 'Jira is rich', *ǯíra séyhó lĕ-yaɦe* 'Jira has lazyness' = 'Jira is lazy', Sml *-le* '-er, -or; owner\keeper\seller of smth.': *damēr-le* 'owner of a donkey', *dukān-li-hī* 'shopkeeper', *hilib-le* 'butcher' ◊ DZO 257, PG 21O ◊ IS II 2O-1 (includes here both the formant of adjectives and the pc. with diminutive meaning [see N *ḷV, diminutive pc.]) ◊ The functional change from an autosemantic word to a derivational suffix may have been as follows: noun X + *ḷe[ʔV]* 'X-seiend, who is X, who has X' (cf. Turkic *kɪŕ-ɪl* 'what\who is red' ← *kɪŕ-* 'be red', Somali *damēr-le* 'who has a donkey, owner of a donkey', Nganasan *ŋamta-lā* 'having a horn, horned', Finnish *vetelä* 'watery' → 'having water'); this sx. spread also into the realm of deverbal nomina agentis (→ participles) ◊ Illich-Svitych 1967: 332 s. v. **быть** ('be') *le*. ◊ The root *ḷV* (or *lV*?) is analytic, because it still remains analytic in Uralic and Ren ill a.

§ 42. *giḷ*/*lÍU 'boy, young man' > HS: Central Sem. *ɣal[V]m-* 'young man, a youth' ‖ Uralic: Finno-Ugric *üLkä* 'boy, young man' (Finnish *ylkä* 'bridegroom', proto-Lappish *ɜlkē* 'boy, son') ‖ Drav. *iḷV* 'young, young man' ◊ It is likely to underly the diminutive/hypocoristic suffix: Kartv. *il-* ~ *-Vl-*, diminutive sx. [Pshavi Georgian *mam-il-a* 'daddy, Väterchen' from *mama* 'father', in other Georgian dialects vocative forms: *mam-il-o* 'daddy!', *ded-il-o* 'Mütterchen'; Svan *dīn-ōl-* (dim. of *dīn* 'girl')] ‖ IE: NaIE *-elV-/*-lV-*, sf. of diminutives, e. g. *porḱ-el-* '(young) pig' (← *porḱo-* 'swine') > L *porculus*, OHG *farhilī(n)*, NHG *Pferkel*, Lt *paršēlis* id.; Old Ind. *śíśūla-s* 'Kindchen' (← *ʹśiśu-* 'Kind'), Greek ἀρκτύλος 'small bear', Latin *animula* (hypocoristic from *anima* 'soul'), OHG *niftila* (dim. of *nift* 'niece'), Lith. *tėvēlis* (hypocoristic of *tėvas* 'father'), *mergēlė* 'girl' (← *mergà* 'maid') ‖ Uralic *-[i]ḷV- ~ *-[i]ḷÍV-*, diminutive sx. > F *pyörylä* 'small circle, small ring' (← *pyöry* 'wheel'), *iso-la-mpa* 'a bit larger' (from *iso-mpa* 'larger'), Ziryene *gop-al* 'small pit' (from *gop* 'pit', Vasyugan Ostyak *kulaĺɨ* 'a small fish' (← *kul* 'fish'), Hung. (dial.) *hažńjāĺ* 'ant' (from Hg *hangya* id.).

§ 43a. ***y{a}**, particle of hypocoristic (?) address (vocative) > Uralic *-y*, Altaic *-(*a*)*y*, hypocoristic suffixes (usually in address words), Semitic: *-ay- (diminutive-hypocoristic infix): **γulaym-*, diminutive-hypocorisitc from **γalVm-* 'young man', Arabic *ǧumayl-* (hypocoristic of *ǧamāl-* 'beautiful'); Arabic *ya*, preposition of the analytical vocative case, Kartvelian *-ia* and IE *-yo-/*-iyo-* (diminutive suffixes). Evidence of the analytical origin: the etymon is represented by suffixes, by a prefix (that is, it was movable) and by a preposition.

E. Origin of gender markers: feminine

§ 44. ***{ʔ}atV** 'female, woman' > HS **ʔVt-* > Cushitic **ʔVttV* 'elder sister' > Saho *atē* 'elder sister' | | Omotic: Janjero *ētnā* 'elder sister' | | HS marker of the fem. sex in nouns: Sem. **'-āt-* in **ʔaχ-āt-* 'sister' (Hb. *ʔā´h-ōṯ*, etc.), **ham-āt-* 'mother-in-law' (> Hb. *ħā´m-ōṯ*), Sem. -*at-* (marker of fem.-and-inanimate gender): **'bin-at-* 'daughter' (> Arabic *bint-*, Hb. *baṯ*); this sx. of fem.-&-inan. gender results from coalescence of N ***{ʔ}atV** and N inanimate demonstr. pronoun ***ṭä̈*; Cush. *-tV*, fem. marker (> Harari Oromo -*tí̄*, Iraqw -*ri* ~ -*ti*), Beja *t-* (fem. marker in the definite article: nom. *tu*, etc.); Berber **tV-* (prefix of fem.-and-inan. gender < article), **-Vt* (marker of fem.-and-inan.: Tamazight *ta-funas-t* 'cow') | | Sem. **ta-*, Cush. **tV-*, prefix if 3 fem. (fem.-&-inanim.) sg. in verbs. The HS *t*-marker of fem.-and-inan. gender results from coalescence of N ***{ʔ}atV** and N inanimate demonstr. pronoun ***ṭä̈* | | Alt.: Tungusic **atV* 'female, elderly woman' > Manchu *atu* 'female fish', Ude *atʔa buyi*, *atʔa mafa* 'she-bear', *atiγa* 'woman, wife, grown-up female animal' | | Drav. **āṭṭ-* 'woman' > Tamil *āṭṭi* 'woman, wife', *āṭavaḷ* 'woman', Kannada *āḍaŋgi* 'a female', Tulu *āḍe* 'a coward', Kui *āḍi* 'wife; the same N word functions as a derivational\grammatical morpheme for females: {Zv.} **oru-tti* 'one female' > Tamil, Malyalam *oru-tti* 'one female person', etc. Evidence for the original analycity: mobility and the existence of cognate autosemantic words.

§ 45. ***ʔ{ä̈}yV** (or ***h{ä̈}yV**?) 'mother' (originally a nursery word) (→ 'female', marker of fem. sex or fem. gender in nouns, pronouns and [as vocative] in verbs): [I] 'mother': HS: East Cush. {Sasse} **ʔāyy-*, Iraqw *ayo* 'mother' | | IE: proto-Germanic **ai̯ϑī* 'mother' (> Gothic *aiþei*, Old Norse *eiða*) | | Ural.: Samoyedic: Kamassian *iyȧ* 'mother' | | D **āy* 'mother, aunt' > Tamil *āy* 'mother', etc. | | | B. marker of fem. (sex\gender): HS: Sem. *-ī*, fem. marker in the 2nd pers. of verbs, **k-i* 'thy, thee', **ʔan-t-i* 'thou' fem.; West Chadic **ki* 'thee, thy' (fem.); HS *-ī- ~ yV*, marker of f. in pronouns of

3s > S *-ī- fem. in *š-ī-ʔa 'she', etc. in other branches of HS || ??? K: traces of a fem. sx. *-ay may be discerned in the OG form *igi-a(y)* 'she' ⬥ *igi* 'that, he' [without opposition of sexes] and possibly in G *čabuḳ-a* 'girl' ⬥ *čabuḳ-i* 'boy' || IE: NaIE *-ī, *-ī-, a nominal sx. of fem. (sex and gender): *wl̥kʷ-ī 'she-wolf' (> OI *vr̥kī*, ON *ylgr* < pGmc *wulɣʷī), *nept-ī-s 'niece' || A: M {Pel.} *-ay, marker of fem. sex of nouns: WrM *sutu* 'emperor' ⬥ *sutay* 'empress', *qutugtu* 'saint man' ⬥ *qutugtay* 'saint woman'; front harmonic vowels of words (possibly going back to a sx. *-E) as a marker of female sex in Mong. and Manchu. Evidence of analycity: presence of cognate autosemantic words.

§ 46. ***ʔemA** 'mother' > S *ʔimm- id., Uralic *emä 'mother, female', T *ämä id., etc. It functions as a suffix of fem. in HS: Egyptian fem. marker *-m*: *cm* 'thou' f. ⬥ *cw* m.; aut. pronouns: *cmt* 'thou' f. ⬥ *cwt* 'thou' m.; Berber} *kamm 'thou' f., *-(ī-)k-am 'thee' f., *-əm ~ *-ī-m 'thy' f. possessoris; Chadic *-m (marker of f.) in *kVm 'thee' f. (> Ngz *km̀*, etc.).

§ 47. ***ʔaʔV** 'female' → female marker > Drav. *ā, *ān̠ 'female (animal)' > Tm *ā*, *ān̠* 'female of ox \ sambur \ buffalo'. It functions as fem. marker: Drav *-a[:], fem. marker > Kodagu *obb-a* 'one woman' (⬥ *obb-ë* ~ 'one man'), *mōv-a* 'daughter' (⬥ *mōv-ë* ~ 'son') || IE: *-aH > Narrow IE *-ā, fem. marker in adjectives, nouns and pronouns > OI, Av -ā, Gk D -ᾱ, Gk A -η / -ᾱ, L -a, Lt -a, pSl *-a, e. g. [a] *new-ā ~ *now-ā 'new' f. > OI ́*navā*, Gk νέᾱ, L *nova*, pSl *nova, NaIE *ek̑w-ā 'mare' (← *ek̑w-o-s 'horse'), etc. || HS: Sem: Ar -ā́ʔ-u, fem. ending of adjectives: *ṣafrāʔu* 'yellow' f. (⬥ *ʔaṣfaru* id. m.), *ʕawrāʔu* 'one-eyed' f. (⬥ *ʔaʕwaru* id. m.), *hasnāʔu* 'beautiful' f. (⬥ *hasan-* id. m.); South Cushitic *-oʔo, fem. marker: Irq *-oʔō* id.: *ħ-oʔō* 'sister' (⬥ *ħ-iyaʔ* 'brother'), *wawut-oʔo*, {MQK} *wāwitoʔō* 'queen' (⬥ *wāwitá* 'kings'), *irqʷatoʔō* 'Iraqw woman', Alagwa {E} *-oʔo*, Burunge {E} *-it-oʔo* id. Evidence: the existence of cognate autosemantic words.

Cf. a Nostratic marker of the male gender:

§ 47a. ***ʔa**, marker of the male sex [from '(young) man'?] > HS: Beja *-a*, suffix of masc. in verbal forms of the 2nd person sg.: *ti-dir-a* 'you (sg. m.) killed'; Sem. *ʔa- in Arabic ʔa-CCaC-u (masc. of adjectives): *ʔaṣɣaru* 'smaller' (masc.) vs. *ṣaɣrāʔu* fem., etc.; Semitic *-a in *ʔant-a 'thou' masc. versus *ʔant-i 'thou' fem. || Drav. *-an̠ ~ *-a, marker of the masc. gender > Tamil *mak-an̠* 'son', Malayalam *mak-an* 'son', Malto *maq-e* 'son', Malayalam *tacc-an* 'carpenter', Konda *-a* (*kaṅ-a* 'blind man') || IE: one of the sources of *-o/e of derived adjectives: *deiw-o-s 'heavenly' ('god') derived from *djew-s 'day, sky, heaven'. Tagmemic evidence of the N analytic origin: Beja *-a* of masc. is separated from the person marker *ti-*.

F. Origin of gender markers: neuter

§ 48. *_ṭä́_, dem. prn. of non-active (inanimate) objects. It gave rise not only to pronouns (IE *_to_, etc.), but also to markers of the inanimate gender: HS *_tV-/*-Vt_, marker of the so-called "feminine gender", actually feminine and inanimate gender (see above) || IE *_-d_ (actually *_-T_, archphoneme resulting from word-finale neutralization of *_-d_,- *_t_ and *_-dʰ_): *_i-T_ (Latin _id_, etc.), *_kʷo-T_ and *_kʷ-i-T_ 'what?' || Drav. *_-tu_, ending of ntr. (inanimate gender) in pronouns and numerals, e. g. [a] Tm _atu ~ ātu_ 'that thing' (<> _a-van_ 'that man', _a-vaḷ_ 'that woman'), etc. It is opposed to the dem. pronoun of active (animate) beings *_sE_ 'he\she' in IE (*_to_ ntr. <> *_so_ anim. > masc.) and possibly in Uralic (*_tä-mV_ 'this' and *_tō_ 'that' vs. *_sE_ 'he, she'). In HS it is opposed to the N animate *_yi_ 'he' (e. g., Sem. *_ta-_ 3 sg. f. <> *_yi-_ 3m. in verbal conjugation) and (in Cushitic) to the reflex of N *_ḳ{ü}_ 'this' (Cush. *_t-_ f. <> *_k-_ m. in demonstrative pronouns and later in the def. articles).

§ 49. In the Narrow IE derived "thematic" adjectives and nouns (with a suffix *_-o-/-e_) there is a new marker of fem., namely *_-m_ (e. g. Latin _novus_ m. <> _novum_ fem.). It goes back to the accusative marker *_-m_ (< N *_mA_ id., see above) that spread to the nom. ntr. due to the lack of opposition nom. <> acc. in the neuter gender. It may be also connected with the N nominalizing pronoun *_mA_ (marker of relative constructions, nominalizer that formed derived and abstract nouns in the daughter-languages) [see above § 36 and my paper "Origin of gender in the Nostratic languages"].

§ 50. Up to now we have dealt with those affixes of the daughter languages that have a clear (or at least discernable) meaning. About practically all of them there is evidence suggesting their analytic origin.

But we cannot say the same about those elements of roots that are called "Wurzelerweiterungen", "Wurzeldeterminative", "root extentions", "élargissements", that is of those parts of roots of daughter-languages (mostly root-final consonants) that are added or alternate without clear-cut and regular change of meaning. Some of them are probably explainable by lexical interaction of roots (Reimbildungen, influences of synonymic roots, etc.) or go back to ancient compounds (from syntactic combination of two N words), but we cannot rule out the possibility that some of them reflect ancient (synthetic?) derivation. In order to elucidate this matter we need a systematic comparative investigation of all these "roots extensions" [the extant literature (Persson 1901 for Indo-European, Hurwitz 1913 and Ehret 1989 for Semitic) has not produced satisfactory results, probably because each scholar worked with one daughter-family only without broader

comparison]. Up to now the question of the origin of these determinatives remains open.

II. Nostratic syntax

§ 51. Our hypothesis of an analytic structure of Nostratic is further supported by what may be reconstructed as Nostratic syntax.

The word order in Nostratic was strict, which is typical of analytic languages. It may be described as follows:

1. All words belonged to one of the three classes: [1] autosemantic words, [2] pronouns, [3] auxiliary words. These classes differ in their syntactical functioning.

2. The predicate is the final lexical word of a sentence. It may be followed by personal and demonstrative pronouns (***ʔitE mi** 'I eat'), but not by other lexical words.

3. Attributive (expressed by an autosemantic word) precedes its head.

4. Direct object immediately precedes its verb. Other objects precede the verb, too.

5. Pronominal subject follows the predicate.

6. Pronominal attributive ('my', 'this') may follow the noun.

7. Case markers follow the noun.

This word order survives in Uralic, Turkic, Mong., Tung., Korean, Japanese, Dravidian, proto-Kartvelian and Cushitic as word order and in all daughter-languages as the order of morphemes within words. It was preserved in proto-IE (and its most ancient descendants) as the unmarked word-order, but when the IE words became syntactically autonomous (marking their syntactic function by their morphological form [obligatory cases, etc.]), the former rigid word order disappeared, so that the word order began functioning as a means of focalization. In Semitic, Berber, Egyptian and some branches of Cushitic the old word order was displaced by a new one (originally emphatic, e. g. attributives following their head).

To this we must add an additional detail. Besides the regular nominative structure of sentences (agens is treated as the subject of a sentence), there was an ergative- or dative-oriented structure (agens is treated as an agentive complement, while the subject of the sentence is the patiens, like *mihi est* side by side with *habeo*, *mihi patet* or *мне видно, мною видимо* side by side with *video*). In this ergative- or dative-oriented structure the pronominal agentive pronoun preceded rather than followed the predicate. Later this structure prevailed in Kartvelian (even today Georgian is a par-

tially ergative language) and (almost completely) in proto-Hamito-Semitic (albeit later it was reinterpreted as a nominative structure). Traces of this structure are preserved in IE (the Hittite *-hi*-conjugation, the Narrow Indo-European perfect). For more details cf. Dolgopolsky 1984.

We can see that both morphological etymology and comparative study of syntax point to an ancient analytic structure of Nostratic.

Abbreviations

Aram = Aramaic
Av = Avestan
Blt = Baltic
Cush = Cushitic
D = Dravidian
Eg = Egyptian
Est. = Estonian
(p)FU = (Proto-)Finno-Ugric
G = Georgian
Gk = Greek
Gt = Gothic
Gz = Ge'ez
Hb = Hebrew
(p)HS = (Proto-)Hamito-Semitic
(p)IE = (Proto-)Indo-European
IIr = Indo-Iranian
J = Japanese
(p)K = (Proto-)Kartvelian
Lt = Lithuanian
Ltv = Latvian
Lz = Laz
(p)M = (Proto-)Mongolian
Mgr = Megrel
(p)N = (Proto-)Nostratic
OCS = Old Church Slavonic
OG = Old Georgian
OHG = Old High German
OI = Old Indian
OPrs = Old Persian
Phoen = Phoenician
(p)S = (Proto-)Semitic
Sl = Slavic
Sv = Svan
(p)T = (Proto-)Turkic
(p)Tg = (Proto-)Tungus-Manchu

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