© A. Dolgopolsky, 2003

# NOSTRATIC GRAMMAR: SYNTHETIC OR ANALYTIC?

By A. Dolgopolsky, Haifa University

§ 1. Criteria determining the original analytic status of a grammatical morpheme:

[1] Mobility: in the daughter languages the same morpheme sometimes precedes autosemantic words and sonetimes follows them (e.g. the pN *mA that forms participles and other deverbal nominals in daughter-languages is found both before and fter 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-langiages 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 feminin nmarker (*-ī) is used in the 2nd person only and is separated (as a suffix) from the person markrer (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' + *Xay⌜ü⌝ 'live' + *ʔ⌜ä⌝y∇ 'mother'), which is typologically comparable with the gender distinction of a yes-word in spoken English: [ˈyesɜ:] (< yes, sir) vs. [ˈyesm̥] (< yes, madam).

## 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', *ɕinü 'thy', modunu 'of a\the tree'), Tg *ŋī (< *-n- + adjectival sx. *-kī), pT *-ŋ, the J postposition no, Omotic genitive ending *-n∇, Sidamo -ni. The genitive marker *nu was used in constructions "noun + *nu + noun underlying later

endins 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˛⊥˛tʳiˀ, where the noun *yu˛⊥˛tʳiˀ 'company, with') and in the D presuffix ("increment") of the oblique cases *-iṉ-. The meaning 'from, away' is preserved in the Lithuanian preposition nuõ and Latvian no [nùo]'from, off, out of', in Berber *n (analytic particle 'away': Kabyle awi-n 'carry away'), as well as in compound endings: Greek -θεν, Turkic *-t̄an/*-t̄än (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 accus. ending *-yi) in pronouns (*ci-mayi 'thee'), proto-Japanese wo > Japanese o (postpostion), North Tungusian and Amur Tungusian *-ba/-be ~ *-ma/me (accus. ending), Written Manchu be [accusative postposition or suffix; according the old descriptions (Harlez, Zaxarov) it is a postposition, according recent comparativistic descriptions (Cincius, Benzing, Sinor) (influenced by the synthetic status of *-ba/-be in other Tungusian ;anguages?) it is a suffix, but its phonology points 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)]. 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] *ʳhˀu 'iste', dem. pc. (> Sem. *-u), [3] *ʳhˀi 'iste' (or 'hic'), demonstrative 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 *š̱ūʔa 'he, that'; N *ʳhˀu > IE *ʔu- / *ʔou̯-/ *we- / *wo- 'iste', deictic pc. (> Old Indian. Avestan ava-, Sl *ovь 'jener', etc.),

Beja u (def. article of masc. in the nom. case), Finno-Ugrian *u- (> Hung. o-da 'dahin,', ott 'there), Turkic *o 'jener dort', Drav. *u 'iste']; N *ʳhʾi > IE (Hier. Luwian ī 'this'), Samoyed *i- and Kartv. *ˌhˌi 'iste', Korean i 'this', D *i 'hic (the nearer to the speaker)', etc. The pN analytic status of all these etyma is obvious.

§ 5. *ʳyʾiyo 'which', 'that which, related to' (individualization through relation). It undelies [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 člověčь, R человечий, Tocharian A mańi 'of the moon, lunaire'), Sem. *-iy- and Eg. -y (sx. of relative adjectives), Uralic ≈ *-ī ~ *-yV id. (> Ostyak χo·dˌi· 'house-..., belonging to the house', Hung. isten-i 'divine', tegnapi 'of yestersay, gestrig', Tundra Nenets ťēi· 'gestrig', etc.), [2] suffix of the genitive vase > branches of IE (Latin patr-ī, vir-ī, Ogam Irish maq-i 'son's, of the sun'), Sem. *-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 ʿyo-, rel. pronominal root (> OI ya-s, Greek ὁ-ς, Sl *jь-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 *ʳyʾiyo 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 yàyà 'how?').

§ 6. ?? *hʳaʾya 'for', directive-designative pc. > IE *-eˌ 'to', ending of the dative case [> *ped-eˌ 'to the\a foot' (> OI paˈd-ē, L ped-ī), *mātr-eˌ 'to the mother' (> OI mātr-ē, L matr-ī, OCS матєрн mater-i), etc.], HS: Sem. S *°-hay > Gz -hē, ≈ directive-locative pc.: kʷalla-hē 'everywhere', kʷalla-hē 'in every direction' (kʷall- is 'all, every'), Alt: Tung. *-ya as a designative pc. (Lamut, Negidal mō-yā-n 'tree\wood for him') and possibly Mong. *-yi, accusative ending, √ ?? 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'). If the questionable Kartv. cognate is valid, the mobility criterion points to the original analytic status of *hʳaʾya.

√ Drav.: Tamil, Old Malayalam accus. ending -aiˌ and Brahui dative-accus. ending -e (the change dat. → accus., as in Mong. and Drav., is observed in many languages: cf. Spanish veo a Juan, Persian l, rā. Aramaic l-, Georgian -s [dative ending used for direct objects]).

Beja u (def. article of masc. in the nom. case), Finno-Ugrian *u- (> Hung. o-da 'dahin,', ott 'there), Turkic *o 'jener dort', Drav. *u 'iste']; N *⌜h⌝i > IE (Hier. Luwian ī 'this'), Samoyed *i- and Kartv. *ˌhˌi '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 undelies [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 člověčь, R человечий, Tocharian A mań-i 'of the moon, lunaire'), Sem. *-iy- and Eg. -y (sx. of relative adjectives), Uralic = *-ī ~ *-y∇ id. (> Ostyak χo·d̲i· 'house-..., belonging to the house', Hung. isten-i 'divine', tegnapi 'of yestersay, gestrig', Tundra Nenets t́ēi· 'gestrig', etc.), [2] suffix of the genitive vase > branches of IE (Latin patr-ī, vir-ī, Ogam Irish maq-i 'son's, of the sun'), Sem. *-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 ʿyo-, rel. pronominal root (> OI ya-s, Greek ὁ-ς, Sl *jь-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 yā̀yà 'how?').

§ 6. ?? *h⌜a⌝ya 'for', directive-designative pc. > IE *-ei̯ 'to', ending of the dative case [> *ped-ei̯ 'to the\a foot' (> OI pa'd-ē, L ped-ī), *mātr-ei̯ 'to the mother' (> OI mātr-ē, L matr-ī, OCS матєрн mater-i), etc.], HS: Sem. S *°-hay > Gz -hē, = directive-locative pc.: kʷəllə-hē 'everywhere', kʷəlla-hē 'in every direction' (kʷəll- is 'all, every'), Alt: Tung. *-ya as a designative pc. (Lamut, Negidal mō-yā-n 'tree\wood for him') and possibly Mong. *-yi, accusative ending,√ ?? 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'). If the questionable Kartv. cognate is valid, the mobility criterion points to the original analytic status of *h⌜a⌝ya.

√ Drav.: Tamil, Old Malayalam accus. ending -ai̯ and Brahui dative-accus. ending -e (the change dat. → accus., as in Mong. and Drav., is observed in many languages: cf. Spanish veo a̲ Juan, Persian l, rā, Aramaic l-, Georgian -s [dative ending used for direct objects]).

§ 7. *t⌜ä⌝ 'away (from), from', ablative (separative) pc. > IE *-de / *-T (neutralized phoneme *-dʰ|*-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', Oold Latin -ōd 'from', Gt ƕaþrō '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 tĕla razlučiti sę 'to separate from the body'; U *-t∇ *-ta/*-tä 'from'; D *-ţi '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. see §16

§ 8. *bay∇ '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, dativw, 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 Cushitic *bay- and Chadic *b∇y∇ 'place', in Mong. M *bayi- 'stand, stay, be' and in Tung. *bi̯ā 'lying-place (within the house\hut), bed'.

see §16

§ 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?', οἰκοθι 'at home'), A: T*-t̄a/*t̄ä (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 *-ţţ⌜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'.

§ 10. *mEN∇ (= *mEń∇?) '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 ܡܶܢ mɛn, Arabic min, Sabaic mn, Tigre mɜn, Mehri, , Jibbali, Soqotri mɜn, Eblaitic minu id. || Eg m 'aus etw. heraus, von einem Ort an' || Kartv. *-man, ending of the ergative case > Old Georg. -man, Georg. -m, -ma, Svan -m id. || IE: Narrow IE *-mos, ending of ablative-dative pl. > Lith. -mus, -ms, Slavic *-mъ (> OCS -mъ, etc.)

id.; NaIE *-mis instrum. pl. > Lith. -mis, Slavic *-mь (> OCS -mъ, etc.); Narrow IE *-mis × *-mos > Germanic dat./abl./instr. pl. *-miz > Old West Germanic {Kluge} -m(i)s (in n. pr. Vatvims 'Vatviabus', Aflims 'Afliabus', Saitchamim(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 *ʳʔ˺∇śa '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 *mEń∇) or by reduction in a grammaticalized (hence unaccented) word → morpheme.

§ 11. *yu˳⊥˳tʳi˺ 'with, beside' (⊥ = unspecified consonant) > IE: Ht -it 'with', K *-it, ending of the instrumental case, A: Tungusian *-ji (< **-di) id., D *-ţ∇, ending of the sociative case. As a separate word it survives in HS: Semitic *ʔittV 'with' > Akkadian itti, ittum 'with, along with', 'by' (agens of passive verbs), Bibl. Hebrew ʔeṯ 'with' (/ ʔitt- before pronominal endings: ʔitᵗt-ī 'with me', etc.) and in U: Finno-Ugric *yuttV > Ugr *yuttV 'with' > proto-Vogul *yŏt, proto-Ostyak ~~pOs~~ *yŏt 'with'.

§ 12. *ʔ∇r∇ (> *r∇) - theme-focalizing (topicalizing) particle > A *tʿe-rʳa˺ id. (marked topicalizing case, sg. of *tʿe- 'der, das') > M *te-re (theme-focalizing case ↔ stem of obl. cases *te-gün) 'that' (used also as 'he'), Tg *tere ~ *tar∇ 'that, he' || IE: nom.-acc. ending *-r in heteroclitic nouns: nom.-acc. sg. *wodo(:)r 'water' (> Ht watar, Gk ὕδωρ, AS wæter, OHG waʒʒar, etc.) ↔ gen. sg. *wed-n-os ~ *ud-n-os (> Ht wetenas, Gt watins, Gk ὕδατος [≈ *udn̥tos], etc.) || HS: Eg ỉr '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. *ʔiñʳA˺ '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', ç̣i-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. *-iṉ, *-ṉ∇ 'in' (e.g., Old Telugu -ə(n), -ni: perumatan 'in the west', bāraṇasi-ni 'in Benares'); IE *-en/*-ne, locative sx.: Ht -an id. (andan 'inside', appan 'behind', piran 'in front'), Vedic ˈkṣām-an 'on earth, Latin super-ne 'upwards, from above', infer-ne 'below'). But in

some languages it remains an autosemantic word (Turkic *īn 'hole\lair of an animal', Manchu un 'straw-littered bedding-place in a pigsty'; Finno-Ugric *⌜i⌝n|ǹ∇ '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/*n̥, *ʔeni in' > Greek ἐν, Latin, Gothic, Anglo-Saxon, OHG in, Lith. ĩ, 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 $N_1$ + nominal $N_2$" the noun $N_1$ functions as genitive, so that the nominal phrase "$N_1$ *ha|e sE" means '$N_1$ *ha|e's he', i.e. 'that of the $N_1$" (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 -ος (id.), L -is (< *-es), OLt -es (ákmen-es 'of stone', móter-es 'mother's, dukter-és 'daughter's'), Lt -s (akmeñ-s, dukter̃-s), pSl *-e (e.g. OCS ⲕⲁⲙⲉⲛⲉ kamen-e 'of stone'), Gt -s (gumin-s 'person's'), Ht -as (halkii̯-as 'of corn'), K *-iṡ (~ *-ṡ ~ *°-aṡ), marker of the genitive case > OG, G -is, -s, Mg -iš, -š, Lz -š, Sv -iš (~ i̯š), -äš (ᵈ -aš) id.; very archaic forms are present in the IE heteroclitic nouns: *-nos ~ *-nes in Ht pahhuenas 'of fire', witenas 'of water', OLt wąndenes id., OI yaknas 'of liver' - cp. nom. yakr̥t); the underlying N word group is $N_1$ + *nu h∇ sE [= *nu gen. + deictic *ha or *he + pronominal *sE = lit. "the $N_1$'s he", i.e. 'that of the $N_1$']; the deictic pc. and the prn. function here as nominalizers of a phrase (*wete nu h∇ 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-ī͡us and in OCS česo, 'of what, whose'

**§ 15. *šaw∇** '(in the) middle' > IE: Narrow IE *-su, locative pl. ending (← 'among' ← 'in the middle'), e.g. *wl̥kʷo(i̯)-su 'among wolves' (with the pl. marker *-oi̯- from the declension of demonstr. prns.) > OI vr̥kē-ṣu, Old Lith., Aikštaitis Lith. vilkuo-su (Standard Lt vilkuo-se with the change *-u > -e under analogical influences), Slavic *vьlc-ě-χъ (> OCS vlъcěxъ), 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' > Ols Ind. sūnu-ṣu, Aikštaitis Lith. sunuo-su, Standard Lt sunuo-se, Sl *sɨnъ-χъ (> OCS sɨnъxъ), Narrow IE *toi-su 'among\in these' (m. pl.) > OI tēṣu, OCS těxъ, Lith. tuose || K *šowa- or *šuwa- 'middle, in the middle' > Old Geotg. šuwa- ~ šowa- 'middle' (šuwa ɣames 'midnight'), etc. || HS: Central Cush: Awngi ʒšew, Damot šɐ'wī, Kunfäl šew 'heart' || Uralic: Finno-Ugr. *šʃawta 'lungs' > Lowland Cheremis шодо šoδo, Highland Cheremis шоды šoδъ id., proto-Lappish *sōvtē 'gill(s) (of a fish)' || Alt.: Tung. *saya(n) 'interstice between fingers\toes'. It is obvious that IE *-su goes back to a N word.

§ 16. *bay∇ 'place', 'to be (somewhere) = estar'. It gave rise to locative case markers (pre- and post-positions, case endings: HS: Sem. *bi 'in', 'with' (instr.), Cush.: Beja -b, locative case suffix, Qwara -wā, directive case sx.; IE: NaIE *-bʰeį/-bʰi, locative pc.: Gk Hm -φι, case pc. with the meaning of locative, dative, ablative; marker of instrumental, dative and ablative in several lgs.: IIr *-bʰis instr. pl. (> Old Ind. -bhiḥ, Avestan -bīš), *-bʰayas dative-ablative pl. (> Old Ind. -bhayaḥ, Av. byō), Latin -bus ablative pl., -bis in nobis, vobis, etc. But it also survives as an autosemantic word: HS: Egyptian bw ~ by.t 'place', Cush. *bay- 'place' > Sidamo Sd bayi-ččo id., Chadic *b∇y∇ 'place' > Bolewa beyi, Karekare biyi, etc.; Alt: M *bayi- 'stand, stay, be', proto-Tungusian *bį̄ā 'lying-place (within the house\hut), bed' (> Udehe beä, etc.). The analytic origin of the IE, Semitic, Beja, Qwara locative affixes is obvious.

### B. The origin of plural forms

§ 17. yE (= yˤiˀ?) 'these, they' (animate plural deictic element) > IE *-į, plural marker of animate gender (> Narrow IE m. and f.) of dem. and interr. pronouns, e.g. *to-į 'these' [animate gender] > Old Ind. tē, Lith. tiẽ, OCS ti, Old Russian tě, Russian те, Goth. þai id., Greek (Boœtic, 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-, -į̄-), pl. marker in oblique cases > F koulu-i-ssa 'in schools', North Lappish N sulˈlu-i-d accus. 'islands', Kamassian ʒaʁa-ʔi-m 'rivers' (acc.) || Altaic: Tung. *-ye, pl. of the interr. pronoun *ŋˤuyˀ 'who?' > Ewenki, Negidal nī-yə ~ ŋī-yз, Lamut ńī-yз ~ ŋī-yз, Orochi ńī-yз '¿quiénes?' || HS: Old Eg. y-, pl. marker

of dem. pronouns: ypn 'these' m., ytn 'these' f. (↔ pn 'this' m., tn 'this' f.), ypf 'those' m., ytf 'those' f. (↔ sg.: pf m., tf f.), ypw 'these' m., ytw '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.

**§ 18.** *ʳʔˡ∇ś∇ '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.** *-∇s > Megrel -es / -is, Laz -es, verbal ending of 3 pl. aor. || **Alt.**: Chuvash -əś ~ -əź_ə 'their', -əś (3 pl. ending of verbs); Mong. *-s, pl. of nouns (Middle Mong. üge-s 'words', ere-s 'men') || **Ur.**: Ziryene Z -ɜś, pl. of adjective: žeńɨd-ɜś 'short' (pl.) || **HS**: West Chadic {Kraft} ~~{Kr.}~~ *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 sǒn, Bokos sǐn, Dwat suŋ 'they'). The original analytic status of this etymon is evidenced by its mobility and by its survival as a word in Chadic.

**§ 19.** *ʔaʳhˡa 'thing(s)', collective pc. of inanimate (≈'de ça') > **IE** *-ḫ₀ > *-ə, ending of pl. ntr. (nom.-acc.) > OI -i (asti 'bones'), Av -i (nāmāni 'names'), Gk τέτταρ-α 'four' (pl. ntr.), OI ca'tvār-i id.; in the paradigm of thematic nouns *-eh [= *e$A_1$] (the stem-final vw.*-e + pl. ntr. ending *-h = $A_1$) yields: (1) NaIE *-ā, e.g. *yūgā pl. ntr. (nom.-acc) 'yokes' > Vd yū'gā, 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 Ge'ez "broken plurals": Aabic ʔa12ā3- (ʔaqdām- 'footsteps' ↚ sg. qadam-, ʔasmāʔ- 'names' ↚ ʔism- 'name', ʔabwāb- 'doors' ↚ bāb- 'door') and ʔa12u3- (ʔanfus- 'souls' ↚ nafs- 'soul', ʔawǧuh- 'faces' ↚ waǧh- 'face'), Gz patterns ʔa12ā3 (ʔaznāb 'tails' ↚ zanab, ʔadbār 'mountains' ↚ darb), ʔa12ū3 (ʔahgūr 'cities, towns' ↚ hagar, ʔaḥḳūl 'fields' ↚ ḥuḳl), 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 lē'l-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 *ʔaʿhˀa are treated syntactically not as plural, but rather as singular: if the subject is an *ʔaʿhˀa-"plural", the verbal predicate is singular. This suggests that the original function of *ʔaʿhˀa is to form collective nouns. The word group *mi ʔaʿhˀa 'what thing(s)?' (with the interr. pronouns *mi 'what?') gave rise to inanimate interrogative pronouns ('what?'): Semitic *mah 'what?' (> Ugar. mȜh, 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.

**§ 20.** *n|nʿäˀ, 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'), Ge'ez -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 and 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 pȝ 'this, the' m. ↔ tȝ f. ↔ nȝ 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.

**§ 21.** *l|ɬarwȜ '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 1950, 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.: vilaị-nar ~ vilaị-ńar 'merchants', makiṛ-nar 'chieves of the agricultural tract', munaị-ńar 'warriors', kiḷaị-ńar 'relatives', vinaị-ńar 'farmers, servants', pakaị-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).

§ 22. *rV yE (= *rV y$^{\lceil}$i$^{\rceil}$?), 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 vi'dur, Av vīδare id., L vidēre 'they saw') || **Kartv.**: Svan -ār ≙ -är ≙ -ar, -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 mэpэ-ri acc. pl. of the refl. pronoun 'sich, себя'; Turkic *-ŕ, pl. marker in pers. pronouns: *bi-ŕ 'we' (> Narrow Turkic *biz, Chv e-b_ir), *si-ŕ 'ye, vos' (> Narrow Turkic *siz, Chv эсир e-z_ir) || **Ur.**: Old Yukagir mi-r 'we', Finno-Ugric *-rV, sx. of collectivity: Highland Cheremis lülper '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$^{\lceil}$i$^{\rceil}$?) 'these, they'.

§ 23. *tV - postnominal marker (prn.?) of plurality > **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.~~ suffix 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 *ṭä [dem. prn. of non-active objects] [q.v.] and N *$^{\lceil}$ŋ$^{\rceil}$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 ⱱi-km-t 'we do' (ⱱi- 1st person subiecti + -km- 'do' + -t pl. ↔ ⱱikm '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-ḳlaⱱ-t 'he has seen us'. It means that the pl. marker cannot go back to a synthetic part of a personal pronoun.

**§ 24.** *ʔʳoˀm∇ 'kin, clan, everybody'. This word is the source of the IE ending of gen. pl. *-ōm, of the *-∇m-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 ⱱilk-ų̃, 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-ų̃. OCS каменъ 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', ~~Ta~~ Toda -m 'all, any', etc. The same etymon survives as a root in many languages: **HS**: S *ʔumm-(at-) 'kin, clan' (Hebrew ʔumˈm-ā 'tribe', Arabic ʔumm-at- 'many people; people, nation'); East Cush.: Afar ummān 'all, every' || **IE** *ʔ|Hom- 'every, all' > Latin omnis id., Armenian ամէն amên 'all', etc. || **Alt.**: Mong. *omug ~ *obug 'clan', Turk. *ōba 'clan, extended family' || **Uralic** *ʳoˀma > Taz Selqup ǭmɨ 'tous les autres'.

### C. Origin of verbal affixes

**§ 25.** *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.

**§ 26.** *ṯʳüˀ (> *ṯi) and its assibilated variant *śʳüˀ (> *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.

**§ 27.** *hoy∇ (= *hoy∇?) '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 ⱱ-,

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.

**§ 28.** *n|ǹ ⌜ä⌝, prn. of collectivity and plurality > **IE**: verbal endings of 3 pl. *-(e)nti and *(e)nt 3 pl. (see above).

**§ 29.** *n|ǹaʕi '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', ~~WrMe~~ Manchu taci-ne- 'go to learn'. This N root sirvives as a word in several languages: Eg ∀ nʕy v. 'go\travel (somewhere)', Kartv. ~~K~~ *n- v. 'want, desire, wish', etc. (for more detals see Dolgopolsky 1992).

**§ 30.** *ç|ci, *ć̣|ći or *ĉ̣|ĉi, marker of verbal frequentativity\iterativity > **IE** sx. *-sk̂-, marker of iterativity\frequentativity (> Hittite iterative/durative sx. -sk-, Narrow IE *-sk̂- as a marker of the imperfective aspect ("present") (e.g. *ĝnō-sk̂-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-, Erzya -śe-, sx. of frequentativity || **Alt.**: Mong. *-ɒi-, sx. of verbal intensivity, Tung. *-ɕi-, 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'.

**§ 31.** *⌜s̄⌝Ew˛ɛ˛∇ 'to want', 'to beg' (→ desiderative) > **IE**: NaIE *-s-, *-sy-: [1] volitive sx. *-s- 'want to' > Old Ind. -s- in śuśrū-ṣatē 'he wants to hear', Old Latin viss-ō > Latin vīs-ō (*wei̯d-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 bɨšęšte-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 *säb- 'love', (?) Sem. *√šwʕ|ɣ 'cry for help' (for more detals see Dolgopolsky 1992).

**§ 32.** *H⌜e⌝ṭ∇ 'make' (> causativizing morpheme) > **A** *°et'∇ > 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. أَتَى ʔatā) 'undertake (a thing), make (it)'. This N word was grammaticalized in Uralic, Alt. and Drav. to a causativizing suffix of verbs: **U**ral. 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.} oqɪ-t- 'make so. recite\read' (↔ {Cl.} oqɪː- v. 'recite\read'); **D** *-tt-, causativizing sx.: OTm selutt- v. 'make so. enter' (↔ sel- v. 'enter').

§ **33.** ***SuwH∇** 'to push, cause' (→ 'to ask for', → causative) > **IE** *seu̯h-/*suh- > Narrow IE *sewə- ≈ 'set in motion' > OI √sū-: su'vati '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** *s∇- > Sem. *š̱∇- prefix of causative verbs (Š̱-stems), Eg. s- id., Berber *s∇- id., Cush. px. *-s∇- id. [following the personal pxs.] (in verbum finitum of the prefix-conjugated verbs), sx. *-s∇- [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'.

§ **34.** ***t⌜a⌝w∇** '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 tʉwi, 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 *tV- and infix *-t- (following the first radical) with the reflexive (→ reciprocal, passive) meaning: Akk. iCtaC∇C, Arabic yaCtaCiCu (VIII form), Biblical Aram., Jewish Aram. yiṯCəCi/eC, Syiac nɛṯCə'CaC, Ge'ez yətCaCaC, etc.; Berber *tw- ~ *t-, prefix of passivization (Twareg twəǵrъw ~ tъǵrъw v. 'be found'; Cushitic *-t-, reflexivizing (→ passiviizing) 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.

§ **35.** ***woy⌞ʔ⌟E** ¬ ***wo⌞ʔ⌟yE** 'power, ability', 'be able' > **IE** *wei̯H- > NaIE *wei̯ə- / *wī- 'strength, force' > OI 'vayas 'energy, strenghth, power' ¦¦ Gk ἴς

(with a long ū) 'strength, force' ¦¦ L vī-s (a vīm) 'force, strength, power' || **HS**: Sem. *√wʔy > Arabic waʔy- 'strong beast', √wʔy (pf. وَأَى waʔā, 3m ip. يَئِى yaʔ-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 *u̯y- > Old Turkic ū- 'be able, capable' ||| This pN word may be the source of the passivity\intransitivity marker in daughter-lgs.: **HS** *w∇- ~ *-u̯- > Eg. -w, verbal suffix of the passive form || Sem.: (1) *w- as the additional first radical of verbs of state and quality: *√wyṭb 'be good' (> Hb., Aram., Syriac √yṭb) - cp. *ṭāb- 'good' (> BHb ṭōḇ, etc.); (2) *-u- ~ *-ū- as an apophonic prefix\infix 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. Š-stem (> BHb יְשֻׁלַּם y-ɔ-šlam 'it will be completed\restituted', Ar y-u-slam-u 'he will be kept safe'), etc || **U**: FU *-w∇- (~ *w∇y-?), 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 gawʲdnu- 'be able to be found, exist' ↞ gawdʲnâ- 'find' ¦ Erzya кадово- kadovo- 'remain' ↞ кадо- kado- 'leave, desert-, etc. || **A**: Turkic *-u-/*-ü-, suffix of reflexive verbs and of denominative verbs of quality ('become\be 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 (*wojʿHʾʌ 'сила': IE, T, BF), Illich-Svitych 1971: 13 s.v. Пассив wʌ.

§ 35a. ***me̯y̯ñU** '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') > Bohairic Coptic **-ⲙⲁⲛ** -man in **ⲡⲁⲫⲙⲁⲛ** papʰman, **ⲡⲁⲑⲙⲁⲛ** pathman, etc. 'a certain person \ thing' || Cush.: Dahalo móni 'self' ¦¦ East Cush.: Sidamo mann-imma 'body' || ? Berber *-mān 'soul, person' (× N ***mäñu** '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' > Ewŋki mɜn 'one's own', mɜnɜkɜwn 'oneself', Solon mɜ̃: id., Lamut mɜn 'one's own', Negidal mɜn id., mɜn + ~~ppa.~~ pers.affix 'oneself (sich, себя)', Orochi mɜmi id., mɜ̄n 'one's own, to oneself', Udehe mɜniŋī, Orok mɜnɜ̄ 'one's own', Udehe, Nanay mɜnɜ, Ulcha mɜn(ɜ) id., 'oneself (selbst, сам)', Manchu meni meni 'anyone, each, by oneself (всякий, каждый, сам по себе)' || Mong. *mön 'the very same, real, true' || **Drav.** *mēṉi 'body' > Tamil mēṉi, Malayalam mēni 'body, shape, beauty', Telugu mēnu, Kolami me·n, Naykri, Nayki, Parji men, Gadba mēnu ≈ mēn, Gondi mēndur, Kurukh mẽd ~ 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 præsetis mediopassivi from Old Ind. bōdh-, Greek πευθ-; Latin fē-mina 'woman' (← *'sucked one'), alu-mn-us 'nursling, foster-chuld' (← *'fed one'), as well as 2p passivi -mini (finite verb ~~for-~~ 2.pl. ← participle); Slavic *-mъ m., *-ma f., *-mo ntr. (OCS вєzомъ vezo-mъ, prtc. præsentis 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 doinf 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 tight;y' || Berber *m- , px. of the reciprocal-reflexive-passive stirp: Rif m-ɣarn 'ils se sont vus' ↚ -ɣar- 'see', Twareg mъnkъḡ 'être coupé' ↚ ankaḡ 'couper', mъkš 'be eaten' ↚ ъkš 'eat', makъr 'be stolen' ↚ akar 'steal', with the meaning of reciprocity: mъǵъn 'faire halte' ('kneel together with the camels') ↚ aǵan 'kneel' (of camels) || **Alt.**: North Tung. *m- > Ewenki (dial.) -m-, verbal sx. of the passive voice: Aldan Ewenki ʗukʗa-m- 'be broken' ↚ ʗukʗa- 'break', Podkamennaya-Tunguska Ewenki yaŋgu-m- 'be broken' ↚ yaŋgu- 'break', Lamut -m-, sx. of the passive voice ¦¦ Greenberg 2000:237 mentions M sx. of reflexivity -βen, that I have not been able to find it in the available literature.

## D. Origin of nominal derivational affixes

**§ 36.** *mA, marker of nomianlized 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 poṟu-mai, Malayalam poṟu-ma 'patience, self-controle', Old Kannada mudi-me 'dominance') || **HS** *m∇-, prefix of derived (mainly deverbal) nouns > Sem. nomina actionis *ma12a3- [Arabic maʔkal- '(act of) eating', Hebrew maʔᵃ'ḵāl 'food'], Sem. *m∇- (a prefix of participles), Eg m∇-, px. of derived (deverbal and denom.) nouns (nomina loci, instrumenti), etc. || **Kartv.**: *m-, *me-, prefix of participles and nomina agentis > Old Georgian m-ç̣e 'helper', m-dgom-i 'who stands'; *m-...-e, me-...-e and *m-...-el-, circumfixes of participles. The mobility of the etymon proves it original analytic status.

**§ 37.** *ṯi, 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 maiθiš '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, Lith. žinó-ti 'to know' || **HS** *-t- and *t∇-, 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∇2a'3at-: Hebrew cəḏā'ḳā 'righteousness', Syriac ʸəḏaʿ'tā 'knowledge', Arabic ħarakat- 'movement'; Eg -t [*-∇t], sx. of nomina actionis (and other abstract nouns) in different nominal patterns; B nomina actionis (used also as infinitives) of the form *t∇-...-∇t, where the prefix *t∇- goes back to the prefixed article and therefore does not belong to the N etymon in

question, but the sx. *-∇t may belong here; Cush.: Bilin -ət, -t, sx. of abstract nouns: bi'r-ət 'heat', fər'h-ət 'joy', gə'n-it 'age', Beja -ti, sx. of nomina actionis: 'tamti 'act of eating'; [2] HS *t∇-, prefix of deverbal abstract nouns: S *t∇- id.: Arabic masdar taδkār-un 'to remember, das Erinnern' (↔ *√δkr 'remember'), Ge'ez tafdāl 'Vollendung', Hebrew tag'mūl 'compensation', Syriac taḵlu'šā 'fight' || **U** *-t∇ ~ *-tt∇, 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.** ***ṭ∇**, marker of passive participial constructions (verb + ***ṭ∇** = 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 *-∇tt∇ 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 / *°-te, sx. of derived nouns (passive result of an action): Ewenki ɜmɜ̄n-tɜ 'remainder' (i.e. 'what is left') || **HS**: *t∇- prefix with the original meaning of nomen obiecti cannot be distinguished from metonymic usage of nomina actionis with the prefix *ṭ∇- (see above): Hebrew tag'mūl 'compensation' is both a nomen obiecti and a nomen actionis. Therefore the mobility criterion cannot provide decisive evidence.

**§ 39.** ***n̄∇**, 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-'no- ~ *plē-no- 'filled, full' > [1] *pl̥̄-'no- > OI pūr'ṇa-ḥ, Ir lán, Gt fulls, Lt plnas, OCS **ПЛЪНЪ** plьnъ, [2] *plē-no- > L plēnus, OI prāṇa-ḥ ||| Productive sxs. of daughter-languages: OI bhind-ā'na-ḥ and pf. prtc. bibhid-ā'nás ↔ 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 niph'al, Ar 'infa'ala, 7th form): BHb נִשְׁבָּר ni-š'bār 'broken', נִשְׁבַּר niš'bar pf. 'was broken', Ak naprusu [verbal adj.'] 'divided'; [2] *-n- (following the personal px.) in the finite verb (Ak præt., WS new imperfective): Hb יִשָּׁבֵר yiššā'ḇer (-šš- < *-nš-) 'is \ will be broken' (new imperfective), וַיִּשָּׁבֵר wayyiššā'ber '(and) was broken', Ar ya-n-qaţilu '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-ḳuet-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') ←d- dukū- 'write' || T {Cl.} *-(∇)n, e.g. OT [MhK] {Cl.} tevrēn 'threads which are twisted to make waistbands' ←d- tevir- v. 'twist'. The mobility criterion proves the abalytic origin of the affixes in question.

**§ 40.** *ʔ∇nṭ∇ '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 -ɵntā, suffix of nomina agentis (fɵ'd-ɵntā 'seaman', ǯi'b-ɵntā 'seller', ku'w-ɵntā 'murderer') || **Uralic**: Samoyed *-ntä, sx. of active participles and nomina ahentis (*ilä-ntä 'living, alive') || **Alt.**: Turkic *-nt'ɪ/*-nt'i, sx. of participles or deverbal adjectives || **Drav.** *-∇ǹţ∇, sx. of gerund. Survives as a word in Berber *ʔu|inta (? ~ *n∇tta) '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|ć̣a ¬ *c|ća (= *Hiç|ć̣|c|ća?) marker of relative constructions [(in descendant lgs.: → sx. of adjectives \ singulatives (→ diminutives)] > **IE**: Narrow IE *-isk-, 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 -(∇)č, suffix of singulative || **Uralic** *-ć∇-, qualifying suffix: F karitsa 'lamb' (cp. karja 'cattle'?), etc. || **Alt.**: Turkic *-ç, suffix of diminutives and forms of endearment: Old Turkic ögüčüm 'mein Mütterchen' (←d- ög 'mother'), Korean -ɕi: apaɕi [abaǯi] 'Väterchen'. It is quite possible that this etymon goes back to the N noun Hic|ć|ç|ć̣χ∇ '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. *lₑʔ∇ⱼ (or *lₑʔ∇ⱼ∇?) 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', cp. 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, translater', ma-šeneb-el-i 'who builds', me-ṭqw-el-i 'saying (sagend)', Megr. ma-čar-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: *bi̯-lъ 'who was', *nes-lъ 'who carried', etc. ¦¦ Tocharian A -l, Toch. B -lye, sx. of deverbal adjs. ¦¦ Old Ind. pēśa'laḥ 'artificially formed, decorated, beautiful' < NaIE ~~*peiḱ-~~ *poi̯ḱ∇lo- 'verziert' ↔ NaIE *pei̯ḱ- 'hew out, carve' [> Old Ind. prs. piṁ'ś-ati id., etc.]); bahu'laḥ 'thick, dense, wide, bundant, cp. Old Ind. ba'huḥ 'much, abundant, great, large' ¦¦ Greek -ιλ-: ποικίλος 'many-coloured' (akin to Old Ind. pēśa'laḥ < 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' (↔ Maneś) || **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} *ĺə- 'be' > Yukagir ĺə- 'be; be (there is)', lī- 'have' (-ī- is a sx. of vt.) ||| **U**ralic adjectivizing *-ļ- (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-ˈla adj. 'a Cheremis' (cp. maˈriy 'Cheremis') ¦ Permian *yum∇l 'sweet' (↞ *yum 'dough made of rye-malt') > Votyak юмал yumal 'sweet, unleavened', Ziryene юмов yumov, dial. yumal id., 'not sour' ¦¦ Ostyak *-ļ-, e.g. > Ostyak {Collinder} śarnəŋ-qŭr-yĭtăl 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 wiŋkäļi ~ wiŋkļi '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): sūr+ĺĺä ilɛntak 'by hunting I shall live', ǭntalp+lä laŋkalpa 'being happy, he cried out' || ? Yukagir: l-suffixes of deverbal nouns, e.g. [1] Tundra Yuk. -ol/-u͡ol, sx. of nomina resultati: id́ilwey-kiyol 'what Idilwey gave, given bu Idilwey', met-yanaspeyreyu͡ol '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 хĕрлĕ хьrlь, 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-aħe (aħe is 'be', y-aħe is 'is') 'have (some quality), be (of some kind': ǯī́ra kumurrṓné lĕ-yaħe 'Jira has wealth' = 'Jira is rich', ǯī́ra séyhó lĕ-yaħe 'Jira has lazyness' = 'Jira is lazy', ~~Sml~~ somali -le '-er, -or; owner \ keeper \seller of sth.': damēr-le 'owner of a donkey', dukān-li-hī 'shopkeeper', hilib-le 'butcher' ~~¶ DZO 257, PG 210~~ ◇ IS II 2O-1 (includes here both the formant of adjectives and the pc. with diminutive meaning [see N *ļ∇, diminutive pc.]) ◇ The functional change from an autosemantic word to a derivational suffix may have been as follows: noun X + *ļe˪ʔ∇˩ '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 ɭ∇ (or *l∇?) is analytic, because it still remains analytic in Uralic and Rendille.

§ 43. *gilɭ|ĺU 'boy, young man' > **HS**: Central Sem. *ˈɣalʟ∇ˌm- 'young man, a youth' || **Uralic**: Finno-Ugric *üʟkä 'boy, young man' (Finnish ylkä 'bridegroom', proot-Lappish *ǯlkē 'boy, son') || **Drav.** *iɭ∇ 'young, young man' ◇ It is likely to underly the diminutive/hypocoristic suffix: **Kartv.** *il- ~ *-∇l-, 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 *-el∇-/*-l∇-, sf. of diminutives, e.g. *porḱ-el- '(young) pig' (↚ *porḱo- 'swine') > L porculus, OHG farhilī(n), NHG Pferkel, Lt paršẽlis id.; Old Ind. śiˈśūla-s 'Kindchen' (↚ ˈśiśu- 'Kind'), Greek ἀρκτύλος 'small bear', Latin animula (hypocoristic from anima 'soul'), OHG niftila (dim. of nift 'niece'), Lith. tėvẽlis (hypocoristic of tévas 'father'), mergẽlė 'girl' (↚ mergà 'maid') || **Uralic** *-ʟiˌɭ∇- ~ *-ʟiˌĺ∇-, diminutive sx. > F pyöryläˈ '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 kulaĺ+ 'a small fish' (↚ kul 'fish'), Hung. (dial.) hâńjāĺ 'ant' (from Hg hangya id.).

### D. Origin of gender markers: feminine

§ 44. *ʳʔˀat∇ 'female, woman' > HS *ʔ∇t- > Cushitic *ʔ∇tt∇ 'elder sister' > Saho atē 'elder sister'; || Omotic: Janjero ētnā 'elder sister' ]]] HS marker of the fem. sex in nouns: Sem. *ˈ-āt- in *ʔaχ-āt- 'sister' (Hb. ʔāˈḥ-ōṯ, etc.), *ħam-āt- 'mother-in-law' (> Hb. ħāˈm-ōṯ), Sem. -at- (marker of fem.-and-inanimate gender): *ˈbin-at- 'daughter' (> Arabic bint-, Hb. baṯ); this sx. of fem.-&-inan. gender results from coalescence of N *ʳʔˀat∇ and N inanimate demonstr. pronoun *ṭä; Cush. *-t∇, fem. marker (> Harari Oromo -tī, Iraqw -ri ~ -ti), Beja t- (fem. marker in the definite article: nom. tu, etc.); Berber *t∇- (prefix of fem.-and-inan. gender < article), *-∇t (marker of fem.-and-inan.: Tamazight ta-funas-t 'cow') ]]] Sem. *ta-, Cush. *t∇-, prefix if 3 fem. (fem.-&-inanim.) sg. in verbs. The

HS *t-marker of fem.-and-inan. gender results from coalescence of N *ʳʔˀatV and N inanimate demonstr. pronoun *ṭä || **Alt.**: Tungusic *atV 'female, elderly woman' > Manchu atu 'female fish', Ude atʔa buyi, atʔa mafa 'she-bear', atiɣa '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. *ʔʳäˀɣV (or *hʳäˀɣV?) '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} *ʔāɣɣ-, Iraqw ayo 'mother' || **IE**: proto-Germanic *aⱨθī 'mother' (> Gothic aiþei, Old Norse eiðа) || **Ural.**: Samoyedic: Kamassian iyȧ 'mother' || **D** *āɣ 'mother, aunt' > Tamil āɣ '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- ~ ɣV, marker of f. in pronouns of 3s > S *-ī- fem. in *š̰-ī-ʔa 'she', etc. in other branches of HS || ??? **K**: traces of a fem. sx. *-aɣ may be discerned in the OG form iɡi-a(ɣ) 'she' ↔ iɡi '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.} *-aɣ, marker of fem. sex of nouns: WrM sutu 'emperor' ↔ sutaɣ 'empress', qutuɡtu 'saint man' ↔ qutuɡtaɣ '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., *-am ~ *-ī-m 'thy' f. possessoris; Chadic *-m (marker of f.) in *kVm 'thee' f. (> Ngz kɨ̀m, erc.).

§ 47. *ʔaʔV 'female', → female marker > **Drav.** *ā, *āɳ 'female (animal)' > Tm ā, āɳ 'female of ox\sambur\buffalo'. It functions as fem. marker: **Drav** *-aː̥, fem. marker > Kodagu obb-a 'one woman' (↔ obb-ə̃

'one man'), mōv-a 'daughter' (↔ mōv-s̃ '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 *e͡kw-ā 'mare' (↮ *e͡kw-o-s 'horse'), etrc. || **HS**: Sem: Ar -āʔ-u, fem. ending of adjectives: ʂafrāʔu 'yellow' f. (↔ ʔaʂfaru id. m.), ʕawrāʔu 'one-eyed' f. (↔ ʔaʕwaru id. m.), ħasnāʔu 'beautiful' f. (↔ ħasan- id. m.); Sout Cushitic *-oʔo, fem. marker: Irq -oʔō id.: ħ-oʔō 'sister' (↔ ħ-iyaʔ 'brother'), wawut-oʔo, {MQK} wāwitoʔō 'queen' (↔ wāwitá 'kings'), irqʷatoʔō) 'Iraqw woman', Alg {E} -oʔo, Brn {E} -it-oʔo id. Ev.: existence of cognate autosemantic words.

## D. Origin of gender markers: neuter

**§ 48.** ***ṭä**, 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** *t∇-/*-∇t, 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 ~ a.·.tu 'that thing' (↔ a-vaṉ 'that man', a-vaḷ 'that woman'), etc. In 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-m∇ 'this' and *tō 'that' vs. *sE 'hr, 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 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 19O1 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 a lexical 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 Sem., 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 pronomianl agentive pronoun preceded rather than followed the predicate. Later this structure prevailed in Kartvelian (even today Georgian is a patially 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. Dolgopolsy 1984.

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

**References**: Dolgopolsky 1984, "On personal pronouns in the Nostratic languages". In:*Linguistica et Philologica: Gedenkschrift für Björn Collinder.* Ed. by O. Gschwantler, K. Rédei, H. Reichert. Wien, Braumüller, pp. 65-112.

Dolgopolsky 1992, "Nostratic etymologies and the origin of verbal formatives". *Nostratic, Dene-Caucasian, Austric and Amerind.* Ed. by V. Shevoroshkin. Bochum, Brockmeyer, pp. 29O-7.

Ehret, Chr. 1989, "The origin of third consonant in Semitic roots: An internal reconstruction". *Joural of Afro-Asiatic Languages* II/2: 1O9-2O2.

Gabain, A. von 195O. *Alttürkische Grammatik.* 2nd ed. Leipzig, Harrassowitz, 1950.

Greenberg J. 2OOO. *The Indo-European and its Closest Relatives: The Eurasiatic Language Family.* I. Stanford, Stanford Univ. Press.

Grønbech K. 1979. *The Structure of the Turkic Languages.* Bloomington, Indiana Univ. Press.

Hurwitz S. T. H. 1913. *Root-Determinatives in Semitic Speech.* N.Y., Columbia Univ. Press

Illich-Svitych, V. M. 1967, "Materialy k sravnitel'nomu slovarju nostraticheskix jazykov". *Etimologija 1965* : 321-73.

Illich-Svitych V. M. 1971 *Opyt sravnenija nostraticheskix jazykov. Vvedenije. Sravnitel'nyj slovar'* (*b* - *ḳ*). Moscow, "Nauka".

Persson P. 19O1. *Studien zur Lehre der Wurzelerweiterung und Wurzelvariation.* Upsala, Akademiska Bocktrykeriet E. Berling.

the predicate. [5] Pronominal attributive ('my', 'this') may follow the noun. [6] Case markers follow the noun. Strict word order is typical of highly analytic languages. Later, when the daughter-languages became agglutinative (as long as the grammatical inflection was not yet compulsory) the strict word order was still important for syntax and therefore was preserved. But when (in IE, HS and some U languages) the grammatical inflection (for cases, persons, etc.) became compulsory, words turned to be syntactically autonomous, so that the word order partially lost its former syntactic importance and became less strict (acquiring focalizing functions).

The origin of affixes (as analyzed above) and the ancient strict word order suggest that originally Nostratic was a highly analytic language.

17a. *ʔa, marker of male sex [← '(young) man'?] > HS: Bj -a, sx. of masc. in verbs of 2nd person sg.: ti-dir-a 'you (sg.-m) killed'; S *ʔant-a 'thou' m.; ~~|| Drav. *-an ~ *-a, masc. marker:~~ S *ʔa- in ʔa-CCaCu masc. of adjectives: ʔaʒγaru 'smaller' ↔ f. ʒaγrāʔu etc.) || Dr. -an ~ -a, masc. marker > Tm mak-an 'son', Mal. mak-an 'son', tacc-an 'carpenter', Konda -a (kan-a ~~sin Blind~~ 'blind man', Malto maq-e 'son' || IE: one of the sources of -o/e- of derived adjectives: dei̯w-o-s 'god' ← 'heavenly' < *di̯eu̯s 'day, heaven, sky' (↔ dei̯w-ā 'goddess') ||| ? Eg iw 'junge'. Ev.: t.e. (-a in Bj, separated from the marker of the 2nd person) m.