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Dravidian Numerals

Although the most probable affiliation of the Dravidian language family on the macro-comparative level lies with the Nostratic superfamily, potential ties between Proto-Dravidian numerals and known Nostratic words for numerals remain scarce. The article summarizes most of the existing hypotheses on the origins of Dravidian numerals, both internal and external, and adds a few others based on the author's theory of a possible Australian substratum in Proto-Dravidian. It is concluded that the latter theory may shed some much needed light on this complicated issue

Numerals belong to the relatively stable part of lexicon of almost all language families, although they are certainly not immune against borrowing. This lack of immunity can be convincingly demonstrated on data from certain Dravidian languages: thus, Brahui has borrowed all the numerals above "3" from Persian, while other Dravidian languages have introduced them from Indo-Aryan languages: Malto (everything starting with "1", although inherited forms for "1" and "2" are also in parallel use), Kurukh (above "3"), Kuwi and Kui (above "2"; in Kui inherited forms for "3"–"7" are in parallel use), Pengo (above "2"), Kolami (above "4", besides parallel inherited forms), Gondi (above "7", besides parallel inherited forms). On the other hand, some non-Dravidian languages, e. g. Nihali, borrowed their numerals from their Dravidian neighbours: e. g. Nihali *irar* "2", *mōṭh(o)* "3", *nālku, nālo* "4" ([Kuiper 1966: 74–75]).

The main purposes of the present study are to describe the inherited Dravidian numerals, to try to understand their structure through internal etymologization, and, where possible, to discuss their external parallels. External comparison is understood here as drawing upon data from hypothetically related languages, hypothetical old substrata and neighbouring language families and language isolates. As far as external genetic relationship is concerned, the situation is approached here from the point of view of the Nostratic hypothesis, proposing a common origin for Afroasiatic, Kartvelian, Indo-European, Uralic, Altaic, and Dravidian languages. (It should be mentioned that Robert Caldwell, the author of the first comparative grammar of Dravidian languages, was one of the first scholars who had already speculated about a distant relationship among these language families). Special attention will be paid to the data of the Elamite language, sometimes assumed to be closely related to Dravidian (McAlpin 1981).

We know next to nothing about pre-Dravidian substrata in India, with the potential exception of Nihali, although for this language the Austric affiliation seems most probable. In respect to this, the old hypothesis about a possible Dravidian-Australian relation ([Müller 1882: 95–98]; [Caldwell 1913: 75–77, 395]; recently again [Dixon 1980: 236, 488–489]) is reinterpreted here from this point of view — namely, that the pre-Dravidian substratum could be related to Australian languages ([Blažek 1992: 421–431]). Finally, out of all the neighbouring languages it is most reasonable to take into particular account the Munda family, as one of the most common sources of borrowing into Dravidian.

Dravidian cardinal numerals have been reconstructed and etymologized as follows:

"one"
1.1. *oru‿(C) / *ōr‿(V) ([DEDR: №990 (*a*)]; [Zvelebil 1977: 34]) = *or- (G. Starostin).
Etymology:
1.1.1. Andronov ([1994: 169]) thinks that -*r*- in *oru- / *ōr- is secondary relative to the root *ol-, discussed below. It is reasonable to think that the inlaut -*r*- of the following numeral *iru- / *īr- could have influenced the transition *ol- > *or-. Since the sequence *wo- is not attested in Dravidian, it is possible to speculate about a protoform *wol-, which would be compatible with East Cushitic *wal- / *wil- > Saho *wili* "one", Somali *wal* "all", Elmolo *wol* "together", Oromo *wol(-i)* "together, with", Sidamo *wole* "other" ([Sasse 1982: 188–189]).
1.1.2. There is a hypothetical possibility to identify here a substratum influence of the Australian type; cf. examples from various groups of Pama-Nyungan: Karanya *uru* ([Curr II: №104]), Pitta-Pitta *ururu* ([Kluge 1938: 68 after Roth]) (two languages of the Pitta-Pitta group); Karuwali (Karna subgroup of the Dieri group) *orru* (Curr) = *uru*, Wongkumara (Ngura subgroup of the Dieri group) *warra* "1" ([Curr II, №№ 106, 52]; [Schmidt, *Anthropos* 7, 1912: 492]).
1.2. *oṉru ([DEDR: №990 (*d*)]) = *on-ṭu ([Krishnamurti 2001: 255]) = *oṇḏ- (G. Starostin).
Etymology:

1.**2**.1. Andronov ([1994: 168–169]) reconstructs an original *oṉ-tu < *ol-tu on the basis of Tamil ol-, Malayalam ollu- "to unite", cf. also Tamil ol "end". Regularity of the development -l + t- > -ṉr- may be demonstrated, for instance, on the example of the Tamil verb al- "to be not so-and-so" in the 3ʳᵈ p. sg. ntr. aṉtu ([DEDR: №234]).

1.**3**. *okk- "one, single, alone" ([DEDR: №990(b)]) = *ok(k)- (G. Starostin).

Etymology:

1.**3**.1. Andronov ([1994: 169]) derives it from *ol- + -kk-, via *ork-, cf. Konḍa uRku uRku "one each".

1.**3**.2. Krishnamurti ([2001: 255]) prefers analyzing this and the other forms as a combination of the bare root *o with suffixes -r-, -n-, -k-; the root *o here is the same as in Old Tamil o "to unite". This solution is perhaps compatible with the idea of Andronov ([1978: 240]), who speculates about the same primitive root reflected in Malayalam o- "to be similar".

1.**3**.3. Andronov ([1978: 240]) also admits a possible connection with IE *oi̯-ⁿᵒ/ko/u̯o- "one".

1.**4**. *oṇṭi "alone, single" ([DEDR: №990(c)]).

"two"

2.**1**. *iru‿(C)/*īr‿(V) ([DEDR: №474]; [Zvelebil 1977: 34]) = *ir- (G. Starostin).

Etymology:

2.**1**.1. Caldwell ([1913: 331]) derived the numeral *īr- "2" from the verb *īr-, attested in Tamil īr (-pp-, -tt-) "to drag along, pull, attract, carry, flay, draw, paint, write", Malayalam īr "splitting, sawing", īruka "to saw, split", Kannada īr "to pull, draw", Parji īrp- "to pull", Gadba īr- "to pull, drag", Gondi ric- "to cut with saw". However, Pengo nir- "to pull", if related, probably excludes this etymology ([DEDR: №542]).

2.**1**.2. Caldwell himself also tried to find parallels outside the Dravidian family. His comparison with the potential Kartvelian counterparts is undoubtedly remarkable: Georgian or-, vor-, Megrelian žir-, žər-, Laz žu(r)-, ǯu(r)-, jur-, Svan jōri, jori, jerbi < *jerwi < *jewri < *jori, derivable from proto-Kartvelian *jor- "2" ([Klimov 1998: 144–145]). Yet the fact that it is the only common Kartvelian lexeme reconstructed with an initial *j- is rather suspicious.

2.**1**.3. Again, there is a substratum alternative indicated by Australian forms: Tiwi (one of the non-Pama-Nyungan languages spoken at the Melville Island in north from the Arnhem Land) yur-rara "2" ([Blake 1981: 112]); Wailpi yierlina "2", Kaurna illa "2", yerrábbola "4" (both Yura subgroup of the South-Western group of the Pama-Nyungan family), Meyu (dialect of Kaurna) yerra "mutually, both", yerrabula "4" = 'dual of' yerra ([Kluge 1938, 59–61]).

Note: The North Munda numeral *iral- "8", attested in Santali, Birhor irəl, Mundari iralia, Ho irilia, Kurku ilar(ia) ([Pinnow 1959: 86]), stands isolated within both Munda and Austro-Asiatic. The numeral can be explained as having a Dravidian origin, provided it reflects a compound consisting of the Dravidian numeral *ir- and the verb *al- "to be not so-and-so" > Tamil al- id., Malayalam alla "is not that", not thus", Kota ala· "to be not so-and-so", Toda aloṣy "except", Kannada alla "to be not so-and-so", Kodagu alla id., Gondi hal "not", Malto -l- 'negative morpheme', Brahui all- 'base of past negative tenses of anning "to be"' ([DEDR: №234]); thus, *ir-al = "two-is not". It is possible to imagine a (North) Dravidian origin for this specific Northern Munda isogloss.

2.**2**. *utri "pair" > Tulu udri "a match, pair", Telugu uddi "a match, an equal, a rival; equal", uddincu "to pair, match, couple" ([DEDR: №623]).

2.**2**.1. Within the framework of the hypothesis of an Australian-type substratum influence it is tempting to wonder if this word could not be related to Pama-Nyungan *kutyarra "2" ([Blake 1988: 43]: formed from *kutya by the non-singular suffix -rra; cf. the reconstruction of the 2ⁿᵈ person pronoun: sg. *NHu- : du. *NHunpala : pl. *NHurra, by [Evans 1988: 103]). Loss of the expected initial *k- is not unprecedented in Dravidian, especially before back vowels, cf., e.g., Tamil konay/ōnāy, Malayalam konayi/ōnāyi "wolf" ([Andronov 1994: 85]).

"three"

3.**1**. *muv‿(C)/*mū‿(V) ([DEDR: №5052]; [Zvelebil 1977: 34–35]) = *mū- (G. Starostin) = *muH- ([Krishnamurti 2001: 330]: plus the neuter marker *-ṉtu).

Etymology:

3.**1**.1. Andronov ([1994: 169–170) assumes segmentation into *mūṉ- and the neuter marker *-tu. In the first edition of his *Comparative Grammar of Dravidian Languages* ([1978: 242]) Andronov speculates about a derivation from Dravidian *mun- > Tamil muṉ "in front", muṉai "front, face, eminence, point, edge", Malayalam mun "priority in space and time", Kota mun- "front, fore", mon "point", Toda mun "in front", mïn "sharp point", Kannada mun "that which is before, in front of", muntu "the front

part or side, front", Kodagu *miñña* "in front, further", *mone* "sharp point", *muŋ gay* "forearm", Tulu *munè, monè* "point, end", Telugu *muni* "first, former, previous, front", Kolami *muni* "sting of scorpion", *mut* "before" = Naiki *mund* id., Parji *muna vanda* "forefinger", *mundi* "in front", *mūni* "tip, point", Gadba *mundel* "the front", Gondi *munne* "in front of", *mūne* "ahead", Koṇḍa *mundala* "in front", Kuwi *munu* "point of needle", Kurukh *munddh, mund* "first, ahead of, previous to", Malto *mundi* "formerly, in ancient times", Brahui *mōn* ([DEDR: №5020]). He suggests the development "protruding finger" > "middle finger" > "third finger". The root **muṇ-* is indeed used to designate one of the fingers, namely, "forefinger" in Parji *muna vanda*, probably in the sense of "first finger" (if the "thumb" is not included).

3.1.2. Alternatively, accepting a substratum origin, it is necessary to take into account some of the Australian forms for the numeral "3" (all from the South-Western group of the Pama-Nyungan family): Natingero dialect of Kalamai *mow* (Mirniny subgroup), Yungar dialect of Wadjuk *moa*, Wardand *mow*, Warrango *mowe*, Ngokgurring *mow*, Nyakinyaki *mow* (all from the Nyunga subgroup). There are also longer forms in various languages of the South-Western group: Natingero (see above) *monga*, Luritja or Kukatja *munngorra*, Bedengo *murrngul*, Jumu ('Lake Amadeus') *mun-kuripa*, and Malgana ('Gascoyne River') *manguraba* or ('Sharkes Bay') *mangaranu* "3" ([KLUGE 1938: 54 – 55]), where the second component can be identified with Nawu (Yura subgroup of the South-Western group) *karbu* "3" ([KLUGE 1938: 56).

"four"
4.1. **nāl* ([DEDR: №3655]; [ZVELEBIL 1977: 34]; (G. STAROSTIN).
Etymology:
4.1.1. Following KITTEL ([1908]), CALDWELL ([1913: 335]) speculated about a relation between the numeral **nāl* "4" and the adjective **nal* "good" > Tamil *nal (naṟ-)* "good", *nalla* "good, fine, excellent, abundant", Malayalam *nal* "good, fine", *nalla* "good, right, fine, handsome, real, true", Toda *naṣ* "beauty", Kannada *nal* "goodness, fairness, fineness", *nala(vu), nalivu* "pleasure, delight", Kodagu *nallë* "good", Tulu *nala, naḷu* "good, cheap", Telugu *naluvu* "beauty, ability, beautiful", Gondi *nelā* "good" ([DEDR: №3610]). But CALDWELL himself admitted that the semantic development remains unexplained.

4.1.2. ANDRONOV ([1994: 170]) mentions that Tamil *nālu* means both "4" and "several", similarly Malayalam *nālu* and Telugu *nālugu*. But the primary meaning "several" would be understandable only if "four" were the highest numeral. It seems more probable to suppose a seconadry development "four" → "several", not vice versa.

4.1.3. On the other hand, there are some remarkable external parallels. CALDWELL ([1913: 335]) concluded: "The resemblance between the Finnish tongues and the Dravidian, with respect to the numeral "four", amounts almost to identity, and can scarcely have been accidental." The Fenno-Ugric data look as follows: **neljä* (> **ńeljä*) > Finnish *neljä*, Estonian *neli*, gen. *nelja* | Lappish North *njælljě*, Lule *nielja*, Kildin *ńielj*, Akkala *ńeľ* | Mordvin Erzya *ńiľe*, Moksha *ńiľä* | Mari *nəl* | Udmurt Kazan *ńuľ*, Sarapul *ńiľ*; Komi Permyak *ńoľ*, East *nuľ* | Khanty Vach *nělə*, Obdorsk *ńil*; Mansi Tavda *ńiľī·*, Pelymka *niľə*, Sosva *ńila*; Hungarian *négy* id., *negyven* "40" ([UEW: 315 – 316]) ||| ? Altaic: Middle Korean *nəyh* id. || Tungus **ńö[l]gün* "6" ([BLAŽEK 1999: 130]).

4.1.4. Alternatively, Dravidian "4" could be of substratum origin if we accept its Australian connections: cf. the forms for "4" in some Australian languages, all from the vast Pama-Nyungan family: Nawu (Yura subgroup of South-Western group) *nulla* (№63: 'Gawler Range' by [CURR 1886]), unidentified language *nalira* (№155 from 'Tambo, Barcoo River'), Koa (Maric subgroup of Pama-Maric group) *nadera* (№140: 'Diamantina River, Middleton Creek'), Maraura (Narrinyeri group) *nailko* (№84: 'Murray River'). These forms were collected by E. M. CURR in his monumental collection of aboriginal language vocabularies *The Australian Race*, I – III, published in Melbourne 1886; here quoted according to [TROMBETTI 1923: 83] who was the first to compare Dravidian & Australian forms.

4.2. **kirt-a* "one-fourth" > Kannada *gidda, girda, gira* "a fourth part"; *giddana, gidna* "the fourth part of a solige", Telugu *gidda, gidde* "one-fourth of the sōla measure" ([DEDR: №1553]).

4.2.1. It is possible to speculate about a relation with Pama-Nyungan **kutyarra* "two" (see 2.2). In some Australian languages the numeral "4" is formed from the numeral "2" by means of the dual suffix **-pa/ula*, cf. Potaruwutj (Kulin group of the Pama-Nyungan family) *kirtpan & kurtpun* ([CURR III: 492, 494]: 'Hopkins River'; quoted after [KLUGE 1938: 74]).

"five"
5.1. **cayN_(C)/*cay_(V)* ([DEDR: №2826]; [ZVELEBIL 1977: 34 – 35]) = **śai-* (G. STAROSTIN).
Etymology:

5.1.1. Andronov ([1994: 171–172) connects the numeral "5" with Dravidian *kay-/*key- "hand" > Tamil kai "hand, arm; elephant's trunk; handle", Malayalam kai, kayyi id., kayyu "the hand", Kota kay "hand, arm", Toda koy id., Kannada kay, kay(y)i, key "hand, forearm; handle; trunk of elephant", Kodagu kay "hand, arm", Tulu kai "hand; handle", Telugu cēyi, cey(y)i "hand, arm; elephant's trunk", kai "the hand", Kolami ki·, kīy, kiyu, key "hand, arm", Naiki kī "hand", Parji key id., Gadba ki, kiy, kiyyu id., Gondi kay, kai id., Koṇḍa kiyu, kivu id., Pengo key, Manda kiy id., Kui kaju, kagu "hand, arm; elephant's trunk", pl. kaska, Kuwi kēyū, keyyu, keyu, pl. keska, Kurukh xekkha "hand, arm", Malto qeqe "hand" ([DEDR: № 2023]). Andronov's solution is undoubtedly acceptable from a semantic point of view, but it is difficult to understand why the initial consonant of the numeral became palatalized, in contrast with "hand" (this is the main objection of [Krishnamurti 2001: 255]). It should be stressed that in the case of "hand", only the Telugu form cēyi, cey(y)i undergoes (regular) palatalization (but not kai "the hand", possibly a re-borrowing from Kannada). On the other hand, it is legitimate to suppose the influence of the following numeral *caṟu/*cā̱r "6".

It is also possible to speculate about the relationship between "5" and Koṇḍa sēna, Pengo hēni "many" ([DEDR: № 2824]).

5.1.2. Altaic: Middle Korean tàsằs "5" = tā "all" + son "hand"; suyn "50" ([Blažek 1999: 130]).

5.1.3. There are interesting parallels in Austro-Asiatic languages: geographically closest is Khasi san "5" (Nagaraja); further cf. proto-Mon *(m-)suun id. ([Diffloth 1976]), &c.

"six"

6.1. *caṟu_(C)/*cā̱r_(V) ([DEDR: № 2485]; [Zvelebil 1977: 35]) = *śā̱d- (G. Starostin).

6.1.1. Andronov ([1994: 172]) rejects the proto-Dravidian status of the alternation *caṟu_(C)/ *cā̱r_(V), which is found only in South Dravidian. As the starting point, he reconstructs *cāl- + -tu with the neuter marker *-tu, an almost universal formative of numerals; in this case, the root can be identified with *cāl- > Tamil cāl "to be abundant, full, sufficient, great", Malayalam cāla "richly, fully", Kannada sāl(u) "to be sufficient or enough, suffice", Telugu cālu "to be able, capable, bear, endure, be enough, sufficient", cāla "abundant(ly)", Kolami sāl "to be able, can", Gondi hālna "completely", āl- "to be able", Koṇḍa sāl- "to be capable of, be suitable", Kuwi hāl- "to suffice, be enough to" ([DEDR: № 2470]). The primary meaning of the numeral "six" = "the abundant [one]" is quite natural, cf. the most probable etymology of the Indo-European numeral *(k̂)su̯ek̂s- ~ *(s)u̯ek̂s- "6" based on the root *u̯ek̂s- "to grow" > Lithuanian vešéti "to grow vigorously; flourish" (see [Blažek 1999: 239–241] with references). For the change *-l + t- > *-ṟ- Andronov (l.c.) finds an analogy in certain Tamil non-case sandhi patterns, such as āṟīdu "banyan [is] bad" < āl tīdu (Tamil āl, ālam "banyan", &c.: [DEDR: № 382], & Tamil tītu "evil, fault, defect": [DEDR: № 3267]).

6.1.2. It is possible to speculate about a compound of the type *cay "5" + *oṟu- "1".

"seven"

7.1. *eṟu_(C)/*ē̱r_(V) ([DEDR: № 910]; [Zvelebil 1977: 35]) = *eṟ-u-/*ē̱r- ([Krishnamurti 2001: 63]) = *jōṟ- (G. Starostin: vocalization after Gondwan *jōṟ- while *-ē- in other branches could have been influenced by the following numeral *eṇ- "8"; in his dissertation [Starostin 2000: № 350] reconstructs *ē, i. e. *jēṟ-, in his transcription *jēṟ-).

7.1.1. Caldwell ([1913: 342]) explained this numeral as a verbal noun, derived from *eṟ(u) "to rise" > Tamil eṟu "to rise, ascend (as heavenly body), rise by one's own power, originate, be excited, aroused, increase, grow, begin", eṟucci "rising, ascent, elevation, starting, origin, beginning, birth", eṟumai, Malayalam eṟu "height, prominence", Kota er "weight", Kannada eṟ, ēṟ(u) "to stand up, rise, awake, spring up, be produced, be obtained", Kodagu ë·l- "to get up", Tulu erkuni "to rise or collect", erka "full; fullness", Brahui harfing "to raise, support, carry (off)", &c. ([DEDR: № 851]). Although the semantic motivation is not transparent (< *"full"?; cf. Written Mongolian doluɣan "7" : Turkic *dōl- "to fill" or Turkic *jätti "7" : *jät- "be enough", Turkish dial. yetiz "all, whole, full"; see Blažek 1999, 116), this etymology remains most promising.

7.1.2. Caldwell ([1913: 342]) also speculated about a relation with Turkic *jätti "7" (on the etymology, see 7.1.1), but Dravidian *-ṟ- and Turkic *-t(t)- has not been recognized by anybody as a valid correspondence.

7.1.3. There are other possible cognates in Altaic: Turkic *jō̱ṟ "100" | Written Mongolian yerü "the most of", yerüdügen "for the greatest part, generally", yerüŋkei "common" | Middle Korean jǒr "10", jàrǎh "a big quantity, number" | Old Japanese jòrò-du "10.000" (see Blažek 1999, 117). The pri-

mary semantics is in good agreement with the Dravidian verb *eṟ(u) "to rise" &c., discussed in §7.1.1. For both Altaic and Dravidian a common Nostratic denominator *jeṟU may be established.

Note: The North Munda numeral *eya "7", attested in Santali *eae*, Mundari *eja, ea(e)*, Ho *iya, aia*, Birhor *eae, aea*, Kurku *(y)eya* ([Pinnow 1959: 269]), stands isolated within Munda and Austro-Asiatic in general. It could be borrowed from a Dravidian donor language in which Proto-Dravidian *-ṟ-* changed into *-y-*. Such a change is described, e.g., for Irula & Kota (Irula *kuyi*, Kota *kōy* "pit, hole" : Tamil *kuṟi*: [DEDR: №1818]); Toda (*tōy* "to be lowered" : Tamil *tāṟ* id.: [DEDR: №3178]); Manda (*nuy-* "to wash" < *noṟ-/*noṭ-: [DEDR: №3783]); and Kurukh (*kiyya* "under", also Brahui *kī* "below, down" < *kīṟ-: [DEDR: №1619]), cf. [Zvelebil 1970: 150, § 1.34.3–4; 151, § 1.34.5; 153, §§ 1.34.11.3 & 1.34.14]; [Krishnamurti 2001, 42–75]. The best candidate for a donor language for North Munda would be Proto-North Dravidian or, rather, its earlier ancestor that still preserved the higher numerals.

"eight"

8.1. *eṭṭu/*eṇ ([DEDR: №784]; [Zvelebil 1977: 35]) = *eṇṭṭu/*eṇ ([Andronov 1994: 173]) = *eṇ- (-ṇṭ-) (G. Starostin).

8.1.1. Already Caldwell ([1913, 345–346]) identified this numeral with the stem *eṇ "number", *eṇ- "to count, calculate", joined by the neuter suffix *-(t)tu; cf. the data: Tamil *eṇ* "thought", calculation, number", *ēṇi* "number", *eṇṇu* "to think, consider, determine, esteem, conjecture, count, reckon", Malayalam *eṇ* "number, thought", Toda *öṇ-* "to count", *öṇm* "counting, numbers", Kannada *eṇike* "counting, number, thinking, observation", *eṇṇu* "to count, think", Kodagu *ëṇṇ-* "to say, tell", Tulu *eṇṇuni* "to count, think", *eṇṇige* "calculation, estimation", Telugu *ennu* "to count, reckon", *encu* "to count, reckon, enumerate, think, consider, believe", Parji *eja* "number", *eja cāj-* "to count", Pengo *eja ki-* id., Manda *eji ki-* id., Kuwi *eji kinai* id. ([DEDR: №793]).

8.2. *eṇ(u)-pa(k)ti is reconstructible for Tulu, Telugu, Kolami and Gondi.

8.2.1. Although Tyler ([1986: 10]) accepts the identification of the word *eṇ "number" with the numeral "8", he alternatively offers to interpret the compound *eṇ(u)-pa(C)ti as "a pair [subtracted from] ten" or "rest of ten", where the first component can be identified with Tamil *ēṉai* "other; the rest" ([DEDR: №919]) or *iṉay > Tamil *iṉai* "pair, couple, likeness, union", Malayalam *iṉa* "pair, couple, union, companion", Kannada *eṉe, eṉa* "a couple, pair, connexion, equality, similarity, a match", Kodagu *ëṉe* "double", *ëṉe makka* "twins", Tulu *iṉè, iṉè* "a couple, pair, companion, mate", Telugu *eṉa* "equal, equality, a match" ([DEDR: №457]). Although such constructions are not altogether improbable, the phonetic problems of *i vs. *e and *ṉ vs. *ṇ remain unresolved.

8.2.2. Andronov ([1994: 173]) decides that the second component here is secondary, caused by analogy with the numeral "9".

"nine"

9.1. *oṉ-/*oṟ-paktu ([DEDR: №1025]).

9.1.1. Apparently "one [subtracted from] ten" (so [Caldwell 1913: 347], and independently Gundert).

9.2. *toḷ-(pak-)tu ([DEDR: №3532]) = *toḷ-pad- (G. Starostin).

9.2.1. Caldwell ([1913: 348]) suggested that *toḷ- be identified with Dravidian *tol-/*toḷ- "before", directly attested in Kuwi *tolli(e), toli* "before, formerly", cf. further Gondi *tollē* "previous", Telugu *toli* "beginning; first, former, previous, old", Tamil *tol* "old, ancient", *tollai, toḷḷai* "antiquity, ancientness" ([DEDR: №3516]). The semantic motivation "before [ten]" is quite acceptable.

9.2.2. The first component is almost universally identified with the root *toḷ-, attested in Tamil *toḷ* "to perforate, bore with an instrument", *toḷḷai* "hole, perforation, pit, anything tubular, fault, defect", Malayalam *toḷḷa* "hole, cavity", Kota *toyḷ-* "to pierce", *toḷ* "hole, vagina", Kannada *toḷe* "hole, cavity", Tulu *toluvè* "hole", *toḷu* "hole; empty", Telugu *toli* "hole", Gondi *tullana* "to be pierced" ([DEDR: №3528]; cf. also [Andronov 1994: 174]). However, the semantic motivation "defect [ten]" or "empty [ten]" seems rather vague.

"ten"

10.1. *pak-tu ([DEDR: №3918]) = *paH- & neuter suffix *-tu ([Krishnamurti 2001: 328]) = *paT- (G. Starostin).

10.1.1. Caldwell ([1913: 351]) accepted Gundert's idea that Dravidian "10" may be borrowed from Sanskrit *paṅkti-* "set of five", cf. also the ordinal numeral *pakthá-* "fifth". The divergence of South Dravidian, Telugu, and the branches represented by Kolami and Gondi is dated to the middle of the 2nd millennium BC by Andronov ([1994: 13]), or even later, to c. 1200–1000 BC by ([Starostin

2000: 217 – 218]). In any case, contacts between Indo-Aryans and the ancestors of those Dravidians who preserved this numeral were possible.

10.1.2. Andronov ([1994: 176]) proposes a long string of changes (*pax- < *pav- < *pam- < *paṉ- < *pal-) so that the numeral can be identified with the root *pal-, attested in such forms as Tamil *pala* "many, several, diverse", *paṉmai* "plurality, multitude", Malayalam *pala* "many, several, various", Toda *peṣ* "a large number, many", Kannada *pala, palavu* "much, many, several, various", *palavar* "several persons", Telugu *palu* "many, several, various, different", *paluvuru, paluvuṇḍru* "many persons", Malto *palware* "to be multiplied, be bred" ([DEDR: № 3987]). From a semantic point of view this idea is acceptable, but the series of the proposed transformations is rather long and unconvincing.

10.1.3. Caldwell ([1913: 353]) offered another possibility of internal etymologization, namely, based on the idea of "duplicity" ("10" = "2×5"?) or "share" ("$^{1}/_{10}$"?), cf. Tamil *pakku* "fracture, duplicity", *pāttu* "dividing, sharing, share, half, *pātti* "division, section, part, share", *paṅkam* "portion, division", Toda *paxy* "division", Kannada & Tulu *pagadi* "tribute, tax", &c., all from the verb *pak-* "to divide / be divided" ([DEDR: № 3808]).

"hundred"

11.1. *nūṟ(-tu)* ([DEDR: № 3729]) = *nūḍ- (G. Starostin).

11.1.1. Caldwell ([1913: 354]) argued for a starting-point in Tamil *nūṟu* "to crush, pulverize, reduce to powder; powder, dust, flour", Malayalam *nūṟu* "powder", &c. ([DEDR: № 3728]).

11.1.2. Menges ([1968: 97]) sought a cognate in Turkic *jūṟ "100", but, according to "classic" consonant correspondences among Nostratic languages, Dravidian *n- is only compatible with Turkic *j- when the latter reflects Altaic *ń- (> Mongolian *n(i)-, Tungusic *ń-). For Turkic *-ṟ-, on the other hand, the regular counterpart in Dravidian has been identified as Proto-Dravidian *-ṟ- (Illic-Svityč 1971: 150; 170]). The cognates in other Altaic languages exclude the genetic relationship of these numerals, cf. Written Mongolian *yerü* "the most of", *yerüdügen* "for the greatest part, generally", *yerüŋkei* "common" | Middle Korean *jǎr* "10", *jǎrǎh* "a big quantity, number" | Old Japanese *jòrò-du* "10.000" (see [Blažek 1999: 117]).

"thousand"

12.1. Telugu *vēyi, veyi, veyyi*, pl. *vēlu* "1000", *vēna-vēlu* "thousands by thousands".

12.1.1. Derived from a Proto-Dravidian root, attested in such forms as Tamil *viyam* "extensiveness, height", *viyal* "greatness, width, expansion", *viyaṉ* "greatness, vastness, excellence", Malayalam *viyam* "extension", Gondi *weeya* "high" ([DEDR: № 5404]).

Conclusions.

1) For the higher numerals from "6" to "10", as well as "100" and "1000", internal Dravidian etymologies seem most probable. The same could be said about the numeral "5", but only if its phonetic relation with the word "hand" can be made clearer.

2) Some of these higher numerals ("7", "8") may have been lost in North Dravidian languages, but their former presence in that subgroup can be reconstructed on the basis of their (allegedly) being borrowed into North Munda languages.

3) The most surprising results concern the numerals from "1" to "4". In between the potential cognates in other branches of Nostratic and the potential Australian parallels, which should indicate a substratum origin for the Dravidian stems, it is the latter comparanda that seem more convincing. On the other hand, it is so far unclear how well distributed the quoted forms are among Australian languages; if they can be shown to represent recent innovations, which is not impossible, the value of these connections will be lessened.

The results of the present study are summarized in the following table:

Form	Internal etymology (§§)	External parallels (§§)
*oru / *ōr "1"		A: PN *urr- / *warr- 1 (1.1.2.) N: EC *wal- / *wil- together (1.1.1.)
*iru / *īr "2"		A: Kaurna *yerra* both, Tiwi *yurarra* 2 (2.1.3.) or N: K *jor- 2 (2.1.2.)
*utr-i "pair"		A: PN *kutyarra 2 (2.2.1.)
*muv / *mū or *mūn- "3"	*muṉ front, point (3.1.1.)	A: PN (SW) *mow 3 (3.1.2.) A: PN (SW) *muṉ-kurV(ba) 3 (3.1.2.)

Form	Internal etymology (§§)	External parallels (§§)
*nāl "4"		A: PN: Nuwa *nulla*; Maraura *nailko* 4 (4.1.4.) N: FU *neljä 4 ‖‖ AL: MK *nəyh* 4 (4.1.3.)
*kirt-i "¹/₄"		A: PN *kutyarra-pula 4 = dual of 2 (4.2.1.)
*cayN / *cay "5"	*kay / *key hand (5.1.1.) or CD *cēn- many (5.1.2.)	N: AL: MK *tasas* 5, *suyn* 50, *son* hand (5.1.2.) AU: Khasi *san* 5 (5.1.3.)
*caru / *cār "6"	< *cāl-tu : *cāl be abundant (6.1.1.)	
*(j)eru / *(j)ēr "7"	*er(u) rise (7.1.1.)	
*eṇ "8"	*eṇ number; calculate (8.1.1.)	
*oṇ-/*or-paktu "9"	one [subtracted from] ten (9.1.1.)	
*toḷ-(pak-)tu "9"	[one] before ten (9.2.2.)	
*pak-(tu) "10"	Tamil *pakku* duplicity (10.1.3.)	
*nūr-(tu) "100"	*nūru powder (11.1.1.)	
Telugu *veyyi* "1000"	Tamil *viyan* greatness (12.1.1.)	

Appendix 1: What is known about Elamite numerals?

The hypothesis of a particularly close relationship between Elamite and Dravidian was first formulated by CALDWELL ([1856]; cf. [1913: 57; 65]); later, additional attempts at demonstrating this relationship were undertaken by A. TROMBETTI, F. BORK, I. DIAKONOFF and, particularly, J. MCALPIN. If this relationship were really close, one would expect some cognates among numerals. Below we list what is known about the Elamite numerals according to the interpretation of W. HINZ & H. KOCH, the authors of the monumental *Elamisches Wörterbuch* ([1987]):

ki "1" (also, with various extensions, *kik*, *kikki*, *kikqa*; with the personal marker, *kir*) — see [EW: 459, 465, 467, 468–469].

mar "2" (also syllabically written variants *ma-ir*, *mar-ra*) — see [EW: 876, 860].

ziti "3" — see [EW: 1305].

tuku "5"? — see [EW: 356].

barba "80"? — see [EW: 147].

It is apparent that among the known Elamite numerals there are no cognates in the system of Dravidian numerals (with the possible partial exception of *mar* "2", cf. Dravidian *maru* "other, next, again": [DEDR: №4766]). It can also be mentioned that F. KÖNIG ([1965: 42, fn. 15]) offered to interpret the Middle Elamite word *nulkippi* as "4 pairs", i. e. "8". If his solution were correct, the hypothetical root *nul- could be a cognate of Dravidian *nāl "4". However, HINZ & KOCH ([EW: 1016]) interpret this word quite differently, namely, as a plural form of the noun 'fertility-maker'.

Appendix 2: A survey of the inherited Dravidian cardinal numerals

_(C)/_(V)	*oru / *ōr "1"	*oṉru "1"	*oṇṭi "alone"	*okk- "1"	*iru / *īr "2"	*muv / *mū "3"
DEDR	[№ 990 (a)]	[№ 990 (d)]	[№ 990 (c)]	[№ 990 (b)]	[№ 474]	[№ 5052]
Tamil	*oru* (C) / *ōr* (V)	*oṉru* nr. one; n. *oṟṟai* one of a pair, odd number	*oṇṭi* that which is single, one who is alone; *oṭṭai* one of a pair	*okka* together	*iraṇṭu*; adj. *iru* (C) / *īr* (V) *iru-p/ɣatu* 20 *iruvar* 2 men *iraṭṭai* pair	*mūṉru* & *mūṉ u* adj. *mu* (CC) / *mūv* (V) *mu-ppatu* 30 *muvar* 3 men
Mala-yalam	*oru / ōr*	*onnu* n., *oṟṟa* one, single, odd		*okka* together	*raṇṭu*; adj. *iru* (C) / *īr* (V) *iru-patu* 20 *iruvar* 2 men *iraṭṭa* double	*mūnnu* *mu-/ṉu-ppatu* 30 *muvar* 3 men
Kasaba		*o(y)ndu / onṉu*			*reṇḍu*; *irppattu* 20	*mūyndu* *muvattu* 30

_(C)/_(V)	*oru/*ōr "1"	*onru "1"	*onti "alone"	*okk- "1"	*iru / *īr "2"	*muv / *mū "3"
DEDR	[№ 990 (a)]	[№ 990 (d)]	[№ 990 (c)]	[№ 990 (b)]	[№ 474]	[№ 5052]
Kurru		ondu / undu			rendu / rondu iravay / iridi 20	mūru
Irula					randu / rendu	
Kota	or, o·r, o	od 1 pan ond 11			eyd ir va·d 20	mu·nd muat 30
Toda	wï·r, oš, o	wïd	waty single, odd < Ta ottai		e·d; i·r o·r 2 years ï foθ 20 ïm double	mu·d mu poθ 30
Kannada	or (C) / ōr (V)	ondu 1 thing	onti 1, alone		er(a)du, erar adj. ir(u), ik, ic irpattu 20 irbar 2 men	mūru adj. mu(k), mū mū-vattu muvar 3 men
Kodagu	orï	ondï 1 thing pannandï 11		okka together	dandï n. iru-vadï 20 ibba 2 men	mu·ndï mu·vë 3 men nuppadï "30"
B. Kurumba		-onde			-addu, adj. ad	-mu:ru
Šōlega		ondu/o			erudu/o ippattu 20	mu:ru/o mu:vattu 30
Tulu	or adj., oru single	oñji 1 thing ondikè joining	onti alone, single		raddu n. adj. iru, ir- irva 20 irveru 2 men	mūji muppa 30 mūv(v)eru 3 men
Koragu		oñji / uñji			eydi	mūji
Telugu	orumu be united	ondu 1 thing	onti singleness	oka 1, single	rendu n. iru-, īr- comp. iruva(d)i 20 ibbaru 2 men	mūdu, inscr. mūnru adj. mu, mū muppa(d)i 30 muvuru 3 men
Kolami				okkon m. okkod f. ok mat once	indiŋ 2 things iddar 2 men i·ral 2 women irve 20	mu·ndiŋ 3 things muggur 3 men
Naiki				okko(n) m. okko(d) f./ n. okoda once	indiŋg 2 things = Ch. erndi iddar 2 men = Ch. iroter iral 2 women = Ch. ira	mūndiŋ 3 things = Ch. mūndi muggur 3 men = Ch. mug(g)ur muyal 3 women = Ch. muy(y)a
Parji				ok adj., okur m., okal f.	ir adj. irdu 2 things irul 2 men iral 2 women	muy adj. mũ:duk 3 things muvir 3 men muyal 3 women
Gadba				ukur m., okut f., ukut n.	iddig n., ir adj. indi 2 things irul 2 men iral 2 women	mūnu mūnd n. muvur m. muyal f.
Gondi	oror, ore m.	undi, undī, undi	unthal n.	ōkō one each	rand(u) non-m. irvur/r m. rante pair	mūnd non-m. muvir m. muhk 3 each
Konda	or-	unri f. / n.			ri(ə)- ri'er 2 men rundi f./n.	mūnri n. mu'er 3 men mūRku mūRku 3 each
Pengo	ro, ronje				ri; rindaŋ n. rikar 2 men rindek 2 women	

_(C)/_(V)	*oru / *ōr "1"	*oṉru "1"	*oṇti "alone"	*okk- "1"	*iru / *īr "2"	*muv / *mū "3"
DEDR	[№ 990 (a)]	[№ 990 (d)]	[№ 990 (c)]	[№ 990 (b)]	[№ 474]	[№ 5052]
Manḍa	ru, ruṇḍi				ri; rikar 2 men rikehiŋ 2 wome	
Kui	ro, roṇḍi n. roanju m.				rī; rīṇḍi f./ n. ri'ari 2 men ri kōṛi 40	mū:; mūṇji f./ n. mu'ar 3 men mū kōṛi 60
Kuwi	rō; ro'esi 1 man roṇḍi 1 woman				rī; ri'ari 2 men riṇḍi f./ n.	
Kurukh	orᵒt m., otᵒx f. ormā all	ōn(d) one whole	oṇṭā 1 thing	oŋghon once	ẽ:ṛ, ēṇḍ 2 thing irb 2 men	mūnd 3 things nubb 3 men
Malto	ort, -e m., -i f. orme all	-ond 1 thing			-is 2 things iwr 2 men	
Brahui	asiṭ 1 (entity) asi adj. asīke once				iraṭ 2 (entities) irā adj.	musiṭ 3 (entities) musi adj. musika thrice

_(C)/_(V)	*nāl "4"	*cayN / *cay "5"	*caru / *cār "6"	*eru / *ēr "7"
DEDR	[№ 3655]	[№ 2826]	[№ 2485]	[№ 910]
Tamil	nāl(u), nālku, nāṉku 4 nāṟpatu, nappatu 40 nalvar 4 men	aintu, añcu; adj. ai 5 aim-patu 50 aivar 5 men	āṟu 6 aṟu-patu 60 aṟuvar 6 men	ēṛu 7 eṛu-patu 70 eṛuvar 7 men
Mala-yalam	nāl(u), nāṅku, nān 4 nalpatu 40 nāl(uv)ar 4 men	añcu; adj. ai 5 am-patu 50 aivar 5 men	āṟu 6 aṟu-patu 60 aṟuvar 6 men	ēṛu 7 eṛu-patu 70 eṛuvar 7 men
Kasaba	ṉālu; ṉalvattu 40	añju; ayvattu 50	āṟu; aṟavattu 60	ēḷu; eḷuvattu 70
Kurru	ṉālu; ṉalabay 40	añju; yābay 50	āṟu; aravay 60	ōgu; ḍabbay 70
Kota	na·ng; na·n digl 4 months; na·lvat 40 na··r pa·d 40 days	anj 5 ay vat 50	a·r ar vat 60	e·y, dial. e·g eḷ vat 70
Toda	no·ng; pa·ng 14 naḷ poθ 40	üz, dial. üj; pu·j 15 e boθ 50	o·r; pa·ṛ 16 aroθ 60	öw; pa·w 17
Kan-naḍa	nāl(u),nāl(u)ku, nā(ku) nalvattu 40 nalvar 4 men	ay(i)du; adj. ai ay-vattu 50 aybaru 5 persons	āṟu arᵘ/a-vattu 60 aṟuvar, arvaru 6 men	ēṛu ēṛ-pattu 70 ēṛvaru 7 men
Koḍagu	na·lï; na· padï 40 na·vë 4 men	añji; aim-badï 50 ayvë 5 men	a·rï; aru-vadï 60	ë·ḷïï; ēḷu-vadï 70 ëvvë 7 men
B. Ku-rumba	na:kʉ	əyidu	a:rʉ	ö:ḷʉ
Šōlega	na:kᵘ/ₒ; na:lvattu 40	ayidᵘ/ₒ; aivattu 50	a:rᵘ/ₒ; aṟuvattu 60	ō:ḷᵘ/ₒ; yappattu 70
Tulu	nālu; nālpa 40 nālveru 4 men	ainu 5 things; aiva 50 aiveru, aiyeru 5 men	āji; āj(i)pa, ājip(p)a 60	ēḷu; ĕlpa, erpa 70 ēḷveru 7 men
Koragu	ṉālu	aynu		
Telugu	nālugu, nāluvu naluvadi, nalubadi 40 naluguru, naluvuru 4 men	ayidu, ēnu 5 (things) ẽ:badi, yabhai 50 ayidu-guru, ēguru, ēvuru 5 men	āṟu aru-vadi, aruvai 60 āṟuguru, āṟuvuru 6 men	ēḍu, inscr. (7th c.) ēṛu ḍebbadi, ḍebbhai 70 ēḍuguru 7 men
Kolami	na·liŋ 4 things nalgur 4 men nallav 4women	aid & ayd segur 5 men	ār argur	eḍ, ēṛ ergur, eḍgur 7 men
Naiki	nāliŋ 4 things Ch. nāli non-m. nalgur 4 men nallaḷ 4 women	Ch. sēndi	Ch. sādi	

₋(C)/₋(V)	*nāl "4"	*cayN/*cay "5"	*caṛu/*cāṛ "6"	*eṛu/*ēṛ "7"
DEDR	[№ 3655]	[№ 2826]	[№ 2485]	[№ 910]
Parji	nālu(k) 4 things adj. nel; nelvir 4 men nelal 4 women	cẽ:du(k) 5 things adj. ceᵐ/ₙ; cevir 5 men ceyal 5 women		
Gadba	nalgur, nalvur m. nandal, naṇḍal f. nālig, nālug n.			
Gondi	nālung; nālk 4 each nāl-vir/-vur/-gur 4 men nāluŋ, lālū non-m.	saiyung, sīyuŋ, hayuŋ, ayŋ non-m., sey(y)ur, sīvir, (h)ayvur m., saik saik 5 each	sāṛung, haṛung (M.), āṛū sarᵛⁱʳ/-vur, (h)arvur m., sarne sixth day	(y)ēṛung, yeḍung, ēṛũ: non-m., ēṛ-vur/-vir, ēṛ(v)ur m. yēṛk 7 each
Konḍa	nālʾer m., nālgi non-m.			ēṛu
Kui	nal; nălgi non-m. nālur 4 men	siṅgi 5 things, sēṅgi f./n., sēŋ gōṛi 100	saj, sajgi 6 things dial. hāja 6	oṛi; oḍgi 7 things oṛi gōṛi 140
Kurukh	nāx 4 things naib m./ f.			

₋(C)/₋(V)	*eṭṭu/*eṇ "8"	*oṇ-/*oṛ-paktu "9"	*toḷ-(paC-)tu	*pak-tu "10"	*nūr-tu "100"
DEDR	[№ 784]	[№ 1025]	[№ 3532]	[№ 3918]	[№ 3729]
Tamil	eṭṭu; eṇ-patu 80 eṇmar, eṇvar 8 men	oṇpatu, ompotu	toṇṭu 9 toṇ-nūṛu 90 toḷḷ-ayiram 900	pattu, paktu; pak-pattu 100 = 10 x 10 patiṉ- 10 in teens -patu 10 in tens patiṉmar 10 men	nūṛu, obl. nūṛṛu- nūṛṛuvar 100 men
Mala-yalam	eṭṭu; eṇ-patu 80 eṇmar 8 men	ompatu	toṇ-nūṛu 90 toḷḷ-ayiram 900	pattu, obl. patin- -patu in tens patinmar 10 men	nūṛu, obl. nūṛṛu- nūṛṛᵘ/ₐvar 100 men
Kasaba	eṭṭu; embattu 80	ombattu 9	tombattu 90	pattu	
Kurru	oṭṭu; eṇ(a)bay 80	ombedu 9		pot(t)u	
Kota	eṭ; em bat 80	orba·d, dial. onba 9 patrmba·d 19	tombat 90	pat; paṇḍ 11, pad- in 13, 14, padn- in 15–18 -vat/-bat in some tens	nu· r
Toda	öṭ; pu·ṭ 18	wïnboθ; pu·ṇboθ 19 e·ṇ boθ 90		pot; pon- in 11–13; -(f)oθ/-poθ/-boθ in tens	nu·ṛ
Kan-naḍa	eṇṭu; eṇ-pattu 80 eṇbar 8 men	omb(h)attu	tom-b(h)attu 90	pattu; padin- teens in 15-18; padi- in 13, 14; pann- in 11, 12; -vattu/ -vattu/-battu in tens padimbar 10 men	nūṛu nūṛ(v)ar 100 men
Koḍagu	ëṭṭï; ëm-badï 80	oymbadï	tom-badï 90	pattï; padïn- in 14–18, padi- in 13, pann- in pannandï 11, panneraṇdï 12 -vadï/-padï/-badï in tens	nu·rï, obl. nu·iṭ-
B. Ku-rumba	-öṭṭʉ	-embadʉ		-pattʉ	
Šōlega	eṇtᵘ/ₒ 8; yambattu 80	ombattu 9; tombattu 90		attu 10	nu:ru
Tulu	eṇ(ʉ)ma 8; eṇpa 80	ormba	soṇpa 90	pattʉ 10; patt- in 11, paḍu- in 12–14, paḍuṇ- in 15–19, -va/-pa, obl. ᵒtʉ in tens	nūdu, obl. nūta- 100

_(C)/_(V)	*eṭṭu / *eṇ "8"	*oṉ-/*oṟ-paktu "9"	*toḷ-(paC-)tu	*pak-tu "10"	*nūṟ-tu "100"
DEDR	[№ 784]	[№ 1025]	[№ 3532]	[№ 3918]	[№ 3729]
Telugu	*enimidi* 8; *enu-badi, enab-hai* 80 = inscr. *eṇ(um)bodi*; *enamaṇḍru* 8 persons		*tommidi* 9 *tombadi, tombhai* 90 *tomma(n)nūṟu* 900 *tommaṇḍuguru, tommaṇḍru* 9 persons	*padi*; *padun-* in 11, 15–18 *padu-* in 13, 14, *pan-* in 19; *-vadi/-padi/-badi* in tens inscr. *padunṟu* 10 persons	*nūṟu*, obl. *nūṭa-nūṟug/ᵥuru* 100 men
Kolami	*enumadi, enumidi* 8 *enmāṭar* 8 persons		*tomdĭ* 9 *tomater* 9 men	*padī, padi*	
Gondi	*aṟmuʳ/ḷ, yermud, enmidi, tenmidi* 8 *aṟmuhk* 8 each	*eḍmu, unmā* 9 *unmak* 9 each	*tomidi, tumidi* 9 *tombai* 90	*pad(i)*, pl. *patk*	*nūr*, pl. *nuhk*

A b b r e v i a t i o n s   o f   l a n g u a g e s   a n d   l a n g u a g e   p e r i o d s

Australian; **AL**taic; **AU**stroasiatic; **CD** — **C**entral **D**ravidian; **EC** — **E**astern **C**ushitic; **FU** — **F**enno-**U**gric; **K**artvelian; **MK** — **M**iddle **K**orean; **N**ostratic; **PN** — **P**ama-**N**yungan; **SW** — **S**outh-**W**estern.

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Р е з ю м е

Автор разделяет мнение, согласно которому дравидийская языковая семья является одной из ветвей ностратической макросемьи; вместе с тем отмечается, что в системе числительных, восстанавливаемой для прадравидийского, надежных ностратических параллелей практически не обнаружено. В статье перечислены все основные гипотезы о происхождении дравидийских числительных, включая как внешние, так и внутренние этимологии; к ним автор добавляет ряд собственных, предлагаемых им в рамках разрабатываемой им теории о наличии австралийского субстрата в прадравидийском. Согласно выводам автора, австралийская этимологизация ряда дравидийских числительных в целом оказывается предпочтительнее, чем известные сопоставления их с ностратическим материалом.