PAN-ASIATIC LINGUISTICS

Proceedings of the Third International Symposium
on Language and Linguistics

Chulalongkorn University
Bangkok, Thailand
January 8 - 10, 1992.

Volume II
The Department of Linguistics of the Universidad Autónoma de Madrid (UAM) is conducting a research on the typology of Numerales. This research embraces 500 languages, pertaining to the possible maximum number of families. A part of this research is included in the framework of the Institute of Studies and Exchange with the Far East, a nonprofit organization connected to several governmental activities, including the regular exchange of scholars and students between the UAM and the University of Foreign Studies at Beijing (P.R. China).

The research on numerals includes the preparation of a typological template, in which several features are considered, such as regularity in numeral formation and classification of peculiarities according to units, tens, and hundreds, presence or absence of the name of the zero (0) inside the formation of large names, chain structure (fusion, origin, or juxtaposition) and several other parameters. The proposed pattern also offers a basic typological characterization of the language according to the typical features of Subject Verb Object order and the position of the Adjective versus the Substantive. Some dichotomous peculiarities regarding the revolution of addition and subtraction have been well considered. In this paper the author will expose some results achieved in the domain of languages of China not belonging to the Chinese group of the Sinitic languages. In order to give a broad vision of the scope of the task, three items will be presented: the typological scheme of the languages already studied, the presence of Iranian type languages, and some observations concerning a characteristic of (at least) Altsic languages: the Oberstufenzahlung (ii).

**Typological templates**

**Abbreviations:**
- a indicates an anomalous circumstance, f.i., in multiplication, column of tens, it indicates that they are formed irregularly (vid. salikur).
- B The higher number preceding.
- D The lower number preceding.
- P Base of the numeration system. Remains of a former system are indicated by means of a bracketed number in the row above.
- S Adjective Substantive.
- S Fusion.
- A Linguistic Family, and branch (i.e., Indo-European, Neo-Indo-European, Iranian, f.i.)

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1 From 11 on, they are Chinese loan-words.
Vigesimal numeration in wux

An ample variety of languages is spoken in the autonomous region of Xinjiang, in China. Those languages belong, usually, to the Turkic family of the Altaic group. In the Western part of the region, at the border of the Soviet Republic of Tadjikistan, a Indo-European language is used. It belongs to the Pamir subgroup of the Iranian group, inside the Indic-Iranian family. The wux language is spoken in the Autonomous Province of Tadjikistan (of 1987, p.1). This minority is called Tajik by the Chinese, who relate it to the one that speaks this last language. The Tajik language is spoken, out of China, in the Soviet Tadjikistan and Uzbekistan, in Afghanistan, and Pakistan, but it must not be confused with the wux. Wux and seltik, another language of the Iranian family, south-eastern group, are languages different from the Tajik language, which belongs to the South-Western branch of the Iranian family (Comrie: 1981, 161). Another name for the wux is wusun, (Russian vakh, not to be mistaken for a Khany language) dialect belonging to the Finno-Ugric branch of the Uralic group called in Russian by this name, Comrie: 1981, 106, is the only language showing a clear ergative construction. The wux presented a regular vigesimal pattern, exposed after the variety called in Chinese wusun, name of a valley in the North-East of Afghanistan (Gao: 1985, 106-109). This dialect serves as an exchange language in the border of China, Afghanistan, Pakistan and the USSR, at the South of the Pamir plateau. It is fragmented in subdialects (Central, Eastern, Western and Northern). The variant to be described is mainly spoken in the Dabba village, inside the F.R. of China.

The first decade is formed by:

<table>
<thead>
<tr>
<th>Name</th>
<th>Fe</th>
<th>Ba</th>
<th>Subj</th>
<th>Addition</th>
<th>U</th>
<th>D</th>
<th>C</th>
<th>Information</th>
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From twenty on, decades are formed as multiples of twenty, plus ten, in due cases:

<table>
<thead>
<tr>
<th>Name</th>
<th>Fe</th>
<th>Ba</th>
<th>Subj</th>
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The digits (11) to (20) are formed by juxtaposition of 'ten' and 'unit':

- 11: Bas jiu
- 12: Bas bui
- 13: Bas trul
- 14: Bas tamar
- 15: Bas pandz
- 20: Bist

From twenty on, decades are formed as multiples of twenty, plus ten, in due cases:

- 20: Jj bist (20)
- 30: Jj bist e(t) Bas (1 x 20 + 10)
- 40: Jj bist e(t) Bas (2 x 20 + 10)
- 60: Jj bist e(t) Bas (3 x 20 + 10)
- 70: Jj bist e(t) Bas (4 x 20)
- 80: Tamar bist e(t) Bas (4 x 20)
- 100: Pands bist (5 x 20), and also said

The combination of the decades, from (20) on, and the units is achieved by vinculation, with the conjunction et:

- (21): Bist et jiu
- (22): Bist et bui
- (23): Bist et trul
- (43): Bist et bui

Note that, due to the nature of the vigesimal system, when this decade is not a pure multiple of twenty, the number is expressed by:

- pure multiple + et + ten + unit

This observation is utmost needed for the correct typological interpretation, given the possibility of misinterpreting the result as that of a juxtaposed type: actually, it exists coordination (and accordingly to it the construction belongs to those called by vinculation).

- (33): Jj bist e(t) Bas trul
- (59): Bist bist e(t) Bas at
- (95): Tamar bist e(t) Bas pandz

The wux language belongs to the many tongues possessing a scheme for the addition between (10) and (20) different from the one employed from (20) on.

Obstacles

We might translate this technical term as over-regional counting or, more simply, over-counting. It designates a type of construction not to be confused with the subtractive one: one number (usually above ten) is named by the corresponding unit and the following decade. The Altaic languages offer very clear examples (Ehlers: 1983, PDP, JDO):

- in the Turkish, 12, 'twelve', i.e. 'the first number belonging to the decade that ends in the twenty', as it were, instead of 'one ten' expected.
- to the Turkish, 19, 'nine twenty'...
connections established between the system of numerals and the general structure of language.

REFERENCES

Note: This research would not have been accomplished, had it not been for access to the Libraries of Stanford University, California, University of California, Berkeley, and the universities of Heidelberg and Kiel, in Germany. I thank the financial assistance provided by The Comité Conjunto Hispano-Norteamericano and the EUROTAR programme of the E.C. (Stanford, 1987), the Comunidad Autóntoma de Madrid (California, Berkeley, summer 1989) and the Alexander von Humboldt Stiftung (Heidelberg, between 1987 and 1991, Kiel, 1991).

ABBREVIATIONS

AGI Archivio Glottologico Italiano.
HBO Handboek der Orientalistiek, Leiden/Colonia.
JJS The Journal of Jewish Studies, Louvain.
JRS Journal of the Royal Asiatic Society.
JSS Journal of Semitic Studies, Manchester.
MOSJ Mélanges de la Faculté Orientale de l’Université Saint-Joseph, Beirut.
PHTF Philologiae Turcicae Fundamenta. Cf. Basin et al., Deny et al.

TITLES


21. Pott, August Friedrich 1847 Die quantale und vigesimalen Zählmethoden bei Völkern aller Welthälfte, Wiesbaden: Dr. Martin Sändig.