# The <br> Mongolic <br> Languages 

Edited by
Juha Janhunen

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## THE

## MONGOLIC

## LANGUAGES

Edited by<br>Juha Janhunen

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## PREFACE AND

 ACKNOWLEDGEMENTSThis volume offers a survey of Mongolic, one of the major language families of Central and Northeast Asia. The Mongolic languages are spoken over a wide span of the Eurasian continent, extending from the Caspian region in the west to southern and central Manchuria in the east. In the south, the Mongolic territory extends to northern Afghanistan as well as to the Gansu-Qinghai region (Amdo) in northern Tibet, while in the north it comprises the Baikal region and part of the Amur basin. The political and historical centre of gravity of this territory is located on the Mongolian Plateau, a region dominated by steppes and mountains in the heart of Asia. An important feature adjoining the Mongolian Plateau in the south is the Gobi Desert, traditionally considered to mark the physical border between Mongolia and China. The Great Wall of China is a permanent man-made symbol of the Sino-Mongol ethnic boundary.

Historically, the Mongols are known as the creators of the largest land empire that has ever existed on earth. The Mongol empire, founded by Chinggis Khan (c.1160-1227), disintegrated almost as rapidly as it had been formed, but during its brief existence it contributed to the history of all regions and civilizations between the Mediterranean and the Yellow Sea. Once only thought to have brought misfortune and destruction to the conquered populations, the historical Mongols have subsequently come to be recognized as unsurpassed strategists, superb organizers, and effective administrators. Their greatest political achievement was perhaps the Yuan dynasty of China (1279-1368), during which Greater China reached its largest territorial extension ever. Of a similar significance was the Ilkhanid dynasty of Persia (1256-1335). It is true, though, that the Mongol rule in the western end of Asia, including Russia, was largely effectuated by the local Turkic populations mobilized by the Mongols.

Originally, Mongol was the name of a limited social unit, or a tribe, but since this happened to be the unit from which Chinggis Khan descended, the term was ultimately extended to comprise the entire population which spoke, or came to speak, the same language. With the historical diversification of this language, the entire family of related languages and dialects collectively termed Mongolic arose. Some populations today still keep the common ethnonym, or its variants, and continue to be referred to by names such as Mongol (Mongolian), Mongghul, Mangguer, or Moghol. Most of the Mongolic populations, however, bear different ethnonyms, mainly based on other ancient ethnic or tribal names. Irrespective of their ethnonyms, all speakers of the Modern Mongolic languages may be regarded as more or less direct descendants of the historical Mongols. It has to be emphasized, however, that it is a question of linguistic descent only, while biologically and culturally the modern Mongols have absorbed a multitude of other influences.

The mutual relationship of the Mongolic languages is relatively close and, hence, fairly transparent even for the non-specialist. This circumstance leads to a number of problems in the definition of what is a language in the Mongolic context. Basically, we may work with the criterion of mutual intelligibility and define any two mutually
unintelligible Mongolic idioms as two separate languages, but this criterion has to be combined with various historical, political, and geographical considerations. Depending on how we balance these considerations against each other, we can arrive at different lists of Mongolic languages. One such list has served as the basis for the arrangement of the present volume. It goes without saying that any approach to this issue can be disputed. Mongolic idioms whose status as separate languages is particularly controversial include Khamnigan Mongol, Ordos, Kalmuck, as well as Mongghul and Mangghuer.

Another difficult issue concerns the genetic taxonomy of the Mongolic languages. Because of their relatively close mutual relationship, many features of the Mongolic languages are more easily described in terms of the wave model of linguistic geography than the family tree model of conventional diachronic linguistics. Another approach is offered by what might be called the onion model, according to which the Mongolic languages form several concentric layers. The absolute core of the family is formed by a single language, which is best called simply Mongol, or Mongol proper. Around this core there is a group of areally coherent languages: Ordos in the south, Oirat in the west, Buryat in the north, and Khamnigan Mongol in the northeast. Further away from the core there are still other languages: Moghol in the west, Dagur in the northeast, and the Gansu-Qinghai complex or the 'Monguor' group, comprising Shira Yughur, Mongghul, Mangghuer, Bonan, and Santa, in the south.

If we think of the relative importance of the different Mongolic languages in the comparative context, it is the outermost layer that has the greatest value. Not only have the peripheral Mongolic languages preserved many rare features that have been lost in the more uniform core area, but also they have more closely interacted with neighbouring non-Mongolic languages: Turkic and Iranian in the west, Tibetan and Chinese in the south, and Tungusic in the north and northeast. This interaction has occasionally resulted in language mixing that even confused early comparativists concerning the correct classification of some Mongolic languages, notably Dagur (once thought to be Tungusic). Typically, in the history of Mongolic studies, the peripheral languages have been much neglected, and many of them remain incompletely documented up to the present day. This is all the more regrettable as some of these languages are rapidly disappearing, while even the more viable ones are under the constant threat of more powerful national and regional languages.

From the political point of view, there is no question that the most important Mongolic language is Mongol proper. Spoken in the core territory of the historical Mongols, Mongol remains the principal language of the Mongolian Plateau. Its Khalkha dialect serves today as the official state language of the Republic of Mongolia, the former Chinese region of Outer Mongolia, and closely similar dialectal forms are used by the Mongols living in the Chinese region of Inner Mongolia. In Inner Mongolia, Mongol retains its official status as the second language of the region. Both in Outer and Inner Mongolia, Mongol traditionally also functions as the regional language for both Mongolic and non-Mongolic minorities. In the Republic of Mongolia, Mongol (Khalkha) is a written language, while in Inner Mongolia it exists in symbiosis with Written Mongol.

Mongolia and Inner Mongolia are not the only political entities with a dominant or titular Mongolic population. Two other important Mongolic regions are the Republics of Buryatia at Lake Baikal, Eastern Siberia, and Kalmykia at the Caspian Sea, Southeastern Europe, both ruled as parts of the Russian Federation. On the Chinese side, in the provinces of Heilongjiang, Jilin, Liaoning, and Qinghai, as well as in the Xinjiang Uighur Autonomous Region (East Turkestan), there are several lower-level titular units
assigned to local Mongolic speakers. Many of the Mongolic populations in China, though not all, are recognized as official minority nationalities. Apart from the Mongols proper these include the Dagur, 'Monguor' (Tu, comprising both Mongghul and Mangghuer speakers), Bonan (Baoan), Santa (Dongxiang), and Yughur (Yugu). It has to be stressed, however, that the official ethnic taxonomy is not always consistent with the actual linguistic and cultural distinctions.

Altogether, the number of Mongolic speakers today may be estimated at 6-7 million, which is surprisingly little in view of the historical impact and modern geographical dispersion of the Mongols. Moreover, this number is heavily biased towards the Mongol language, which alone counts for $80-90$ per cent of the total, in absolute terms perhaps 5 million individuals. The remaining 1 million or fewer Mongolic speakers are divided between some twelve other languages, with the corresponding populations ranging from a few individuals, as for Moghol, to some hundreds of thousands, as for Santa and Buryat. The total population of the ethnic groups concerned is somewhat larger, for, especially in China, official ethnic identity can also be inherited without native language maintenance. Thus, there are about 5 million ethnic Mongols proper in China, but probably no more than 3 million speakers of the Mongol language. Even so, there are more Mongol speakers in China than in the Republic of Mongolia.

## BIBLIOGRAPHICAL NOTES

There exists a voluminous literature on the role of the Mongols in Eurasian history, especially as viewed from the European and Chinese angles. Two useful introductions to the western conquests of the historical Mongols are the volumes by Bertold Spuler (1960) and David Morgan (1986). The most up-to-date and easily accessible general treatment of the Yuan dynasty of China, with ample bibliographical notes, is contained in the relevant volume of The Cambridge History of China, edited by Herbert Franke and Denis Twitchett (1994). An even more generalizing approach to the position of the Mongols in the system of Chinese and Central Asian history has been developed by Thomas Barfield (1989).

In the field of ethnic and cultural studies, the Mongols are likewise covered by a multitude of general and specialized works. A very useful and up-to-date basic reference tool on the present-day Mongolic populations and their distribution has been compiled by Michael and Stefan Müller (1992). A variety of themes pertaining to the Mongol traditional culture is dealt with in the collective volume edited by Michael Weiers (1986). Of a more specialized scope are the works by Walther Heissig (1980) on the religions, by L. L. Viktorova (1980) on the ethnic history, as well as by Erika and Manfred Taube (1983) on the spiritual culture of the Mongols. Recently, the Mongol material culture has been presented in a number of important international exhibitions. Two of the best exhibition catalogues, with excellent illustrations and expert commentaries, are those edited by Walther Heissig and Claudius G. Müller (1989), as well as by Patricia Berger and Terese Tse Bartholomew (1996).

Somewhat surprisingly, although many of the individual Mongolic languages are well described and documented in linguistic and philological works, generalizing literature on the Mongolic languages is comparatively scarce. The only international volume devoted entirely to the presentation of the synchronic and diachronic diversity of the Mongolic languages is the Mongolic section of the Handbuch der Orientalistik, which contains contributions by Nicholas Poppe and others (1964). A serious problem of this volume is that it was published with no consistent editorial policy. The chapters describing the
individual languages are poorly coordinated, and some languages are clearly underrepresented in the material. Also, the approach of the volume is mainly philological, and many contributions show an obvious lack of linguistic competence.

Another general survey of the Mongolic languages, though intended mainly for the Russian reader, is contained in the volume edited by I. V. Kormushin and G. C. Pyurbeev (1997) for the series Yazyki Mira ('Languages of the World') of the Russian Academy of Sciences. Since the volume also contains sections on the Tungusic languages, as well as on Korean and Japanese, the presentation of the material is not particularly deep. Also, the preparation of the volume took an exceptionally long time, rendering some of the data obsolete already at the time of publication. Nevertheless, the approach has the advantage of being clearly linguistic, and much of the material is drawn from the personal field work of Russian scholars. Another merit is that the descriptions of the individual Mongolic languages follow uniform editorial principles.

Mention should also be made of a somewhat similar volume prepared much earlier by a single Russian Mongolist, B. X. Todaeva (1960), who in the early years of the People's Republic coordinated a joint programme of linguistic field work among the Mongolic populations of China. Since China, even without the territory of Mongolia, is the home for at least part of the speakers of every single Mongolic language with the exception of Kalmuck and Moghol, Todaeva's work amounts to being a synchronic survey of the entire Mongolic family. It is true that, because of its limited size, it inevitably remains superficial in its approach, especially as far as the diachronic level of explanation is concerned. To complement the general volume Todaeva has, however, also authored separate monographic descriptions of several major Mongolic languages.

Another series of separate descriptive monographs has been published (1983-98) by Inner Mongolia University on the basis of field research carried out by Inner Mongolian and Chinese scholars. The series, bearing the Written Mongol title Muvgqhul Tuirul uv Gala vAyalqhuv и Sudulul uv Cuburil ('Studies of Mongolic Languages and Dialects'), covers, in this order: (New) Bargut, Dagur, Santa (Dongxiang), Bonan (Baoan), (Huzhu) Mongghul, Shira Yughur, and Oirat. Each of these seven entities is dealt with in three volumes, containing a comparative analysis, a vocabulary, and a collection of sample texts, respectively. However, no comparative generalization of the whole material is offered.

On the lexicological side, the comparative and diachronic research of the Mongolic languages lags behind the level attained in the study of most other Eurasian language families of comparable importance. Although there are several large dictionaries of a few individual Mongolic languages, notably Written Mongol, Khalkha, Ordos, and Oirat, no etymological dictionary of the Mongolic language family has ever been prepared. The closest approximation to a comparative dictionary is the volume published in China under the editorship of Sun Zhu (1990). This work contains c.3,000 semantic entities (Chinese and English glosses) translated into sixteen Mongolic languages and dialects spoken in China, plus the Written Mongol and Khalkha Cyrillic literary norms.

In view of the lack of such basic tools as an etymological dictionary and comprehensive historical grammars for most of the individual idioms, the diachronic and comparative analysis of the Mongolic languages is surprisingly well advanced. This is largely due to the Altaistic tradition of language comparisons, which regards Mongolic, together with Turkic and Tungusic, as a member of the so-called Altaic language family. In the east, Korean and Japanese are also often classified as Altaic, while in the west Altaic is traditionally linked with Uralic, forming the Ural-Altaic 'phylum'. While all of these languages are characterized by an undeniable structural similarity, the connection of Mongolic with Turkic and Tungusic can also be substantiated by a multitude of shared
material features. Nevertheless, it is today increasingly commonly recognized that at least most of the similarities concerned are not genetic in origin, but due to complex and multiple areal contacts in the past.

In the present volume, which focuses on the individual Mongolic languages, Altaic comparisons play a significant role only in the chapters on Para-Mongolic and the TurkoMongolic relations, though occasional references to Turkic and Tungusic are also made in a few other chapters. The fact is that the internal analysis of the Mongolic languages should go before any external comparisons. Also, the Altaic languages are only one of several possible contexts in which Mongolic can be placed. Of equal, if not greater, interest are the contacts which Mongolic has had with its non-Altaic neighbours. Recent development in the theory of contact linguistics makes it easier than before to understand the background of the typological interaction that has deeply influenced the evolution of several Mongolic languages, notably Moghol, Mongghul, Mangghuer, Bonan, and Santa. Mongolic has also participated in the development of several Chinese-based 'creoles' in the Gansu-Qinghai region. Generally, the typological relationships of Mongolic with its neighbours remain an unexplored but promising field for future research.

## ACKNOWLEDGEMENTS

The main stimulus for the preparation of the present volume has been the very absence of a modern comprehensive language-by-language survey of the Mongolic family. Similar surveys have recently appeared on many other Eurasian language families, including, notably, Uralic, as edited by Daniel Abondolo (1997), and Turkic, as edited by Lars Johanson and Éva Agnes Csató (1998). The editorial solutions of these works have been adopted in the present volume as far as possible and applicable. Thus, for instance, the ordering of the chapters follows a simple chronological and geographical sequence, without direct reference to the genetic hierarchy. Because of the shallowness of the Mongolic family, most chapters are devoted to the individual modern idioms in an approximate areal succession from north to west to south. Preceding this synchronic part, there are three chapters on reconstructed and historical forms of Mongolic, while the last three chapters deal with areal and taxonomic issues.

As in the case of most other recent volumes on language families, the driving forces behind this project have been Bernard Comrie and Jonathan Price. Especially the latter, in his role of commissioner and supervising senior editor, has greatly contributed to the general structure and form of presentation in this volume. My first proposal to Jonathan Price in April 1994 concerning the editing of a volume on Mongolic was followed by several years of additional planning, until the final project was ready to be presented to the publisher, and to the contributors, during the first half of 1998. Finding competent authors for the chapters on some of the more exotic Mongolic languages was no easy task. In this task, important coordinating help was given by Kevin Stuart (Xining).

As editor of this volume, I also have to acknowledge my debt to my immediate academic environment at the Institute for Asian and African Studies, University of Helsinki. Although Mongolic Studies has never been an independent academic field in Finland, this country has produced some great Mongolists who today, with good reason, are regarded as founders of modern comparative Mongolic and Altaic studies. Without the linguistic field work tradition initiated on a wide Eurasian scale by Matthias Alexander Castrén (1813-52), and continued with a more narrow focus on Mongolic by Gustaf John Ramstedt (1873-1950), this volume would not be what it is now. On the philological
side, Ramstedt's heritage was until recently carried on by Pentti Aalto (1917-98), who was the teacher of the present-day generation of Finnish Mongolists. Among the latter, Harry Halén has with constant philological and bibliographical advice greatly facilitated the progress of my work.

My editorial thanks are also due to the contributors, all of whom are prominent (and in some cases unique) specialists on the languages and topics they describe. Three contributors with whom I have had an especially fruitful exchange of ideas and information are Stefan Georg, Volker Rybatzki, and Keith Slater. Of other connections, the colleagues at Inner Mongolia University and the Inner Mongolian Academy of Social Sciences should be mentioned. During the preparation of this volume, contacts with Inner Mongolia have been intermediated by Borjigin Buhchulu, Borjigin Sechenbaatar, and Huhe Harnud. I am also grateful to Michael Balk (Berlin) for a fruitful project on the Romanization of the Mongol script. In the present volume, a few modifications have been made to the original joint framework (see the Chart of Romanization).

## TECHNICAL NOTES

There is a great diversity in the ways in which Mongolic language material is quoted in various sources. Since Ramstedt's times, much of the Mongolic data collected in the field by Western scholars has been noted down and published using the Finno-Ugrian Transcription (FUT), as standardized and propagated by Eemil Nestor Setälä (1901). This is a graphically extremely complicated system, which mainly relies on diacritics for the notation of segmental specifics. Reflecting the empirical approach of the Neogrammarian school of linguistics, the FUT has the advantage of being so accurate that, when used with sufficient auditive sophistication, it hardly excludes any phonologically relevant information. On the other hand, it has the obvious disadvantage of concealing the phonemic structure behind a curtain of phonetic details.

In parallel with the FUT, a Cyrillic-based phonetic notation with a varying degree of exactitude has been in use in the Russian scholarship on Mongolic up to the present day. A very broad system of Cyrillic transcription for Mongolic is also offered by the official orthographies of Khalkha, Buryat, and Kalmuck. At the international level, however, the FUT has only recently been challenged by the increasing use of the International Phonetic Alphabet (IPA). In particular, most publications on Mongolic in China today use the latter system which, in spite of its typographic problems, offers a basic set of special symbols for the broad allophonic transcription of any language. In Mongolic studies, an unfortunate disadvantage of the International Phonetic Alphabet is that its use has created a serious gap of communication with regard to the earlier (FUT) tradition of research.

In the present volume, neither the FUT nor the IPA will be used except for occasional phonetic reference. Instead, all data will be quoted in a phonemic transcription based on the resources of the standard Roman (English) keyboard - the set of graphic symbols favoured also in modern text processing and electronic communication. The fact is that the phonemic resources of most languages can be adequately expressed by the basic Roman letters, complemented by selected digraphs. However, as far as the transcription of the Mongolic languages is concerned, it is reasonable to follow the diacritic tradition for certain details, especially for the notation of the segmental oppositions connected with vowel harmony.

The principal Roman letters and digraphs as used in this volume are, for the consonants: $b d g$ (basic weak stops), $p t k$ (basic strong stops), $c j$ (palatal stops or affricates),
ts $d z$ (dental affricates), $f s \operatorname{sh} x$ (strong fricatives or spirants), $w z z h g h$ (weak fricatives or spirants), $q$ (post-velar stop), $m n n y n g$ (nasals), $r l h$ (liquids), and $h y$ (glides or semivowels); and, for the primary vowels: $a e$ (non-high unrounded), o $\ddot{o}$ (non-high rounded), $u \ddot{u}$ (high rounded), and $i \ddot{i}$ (high unrounded). Certain secondary vowel qualities are indicated by the letters $\ddot{a}$ (low unrounded front), $a$ (low rounded back), é (midhigh unrounded front), $o ́$ (rotationally modified ${ }^{*} \ddot{\partial}$ ) and $\dot{u}$ (rotationally modified ${ }^{*} u$ ). For a qualitatively neutralized reduced vowel in non-initial syllables, the letter $e$ is used. Secondary articulation of consonants is indicated by the letters $y$ (palatalization) and $w$ (labialization). Capital letters, such as $A U D G K N$, stand for generalized morphophonemes and/or not fully specified archiphonemes.

For indicating the different types of bond between elements within a word, a slightly revised variant of the system used by Abondolo (1998) for Uralic is applied. A consistent graphic distinction is made between compounding $(+)$, reduplication (\&), inflection (-), derivation (.), and cliticization ( $=$ ). Additionally, a special symbol (/) is used to separate unstable morpheme-boundary segments from the basic stem. All of these symbols are only used when judged to be relevant for the discussion, which is more often the case with reconstructed forms than with synchronic material. Technical abbreviations for the names of grammatical categories are avoided in regular text, but they are used in tables and descriptive formulas (cf. the list of abbreviations).

Material from languages with a written tradition is presented, as far as necessary, both in transcription (italics) and according to the orthographical norm (boldface). Reconstructed (undocumented) linguistic forms (also in italics) are marked by an asterisk (*), while unclear (documented but not verified) data of dead languages (Middle Mongol and Para-Mongolic) are marked by a cross ( $\dagger$ ). Orthographical shapes based on the Roman alphabet are reproduced as such, as is the case with some of the Mongolic languages spoken in the Gansu-Qinghai region, which have a modern Pinyin-based literary norm. If, however, the written language uses a non-Roman alphabet, as is the case with, for instance, Written Mongol and the Cyrillic-based literary language of Khalkha, a system of transliteration is used. The principles of transliteration are elaborated in the relevant chapters. The issue of transliteration is particularly important for Written Mongol, a language which in conventional scholarship has been presented in (a kind of) transcription, rather than transliteration.

As far as grammatical terminology is concerned, the main principle has been to give preference to form before function. Thus, diachronically identical forms in two or more Mongolic languages are called by the same name irrespective of whether their synchronic functions are identical or not. As a general guideline for the naming of the individual forms, Poppe (1955) has been relied upon, though some revision of his terminology has been unavoidable. The synchronic description of the actual functions of each form reflects the various approaches of the individual authors. The chapters illustrate the differences in the interests of the authors, ranging from ethnolinguistics and dialectology to phonology and morphology to syntax and semantics. As the focus of each author also reflects the essential properties of the language described, the editor has not considered it necessary to unify the approaches.

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## ABBREVIATIONS

| 1 p. | 1P | first person |
| :---: | :---: | :---: |
| 2 p . | 2P | second person |
| 3 p . | 3P | third person |
| abl. | ABL | ablative (case) |
| abs. |  | absolutive (case) |
| abtemp. |  | abtemporal (converb) |
| acc. | ACC | accusative (case) |
| ag. |  | agentive (participle) |
| appr. |  | approximative (numeral) |
| ben. |  | benedictive (mood) |
| caus. | CAUS | causative (voice) |
|  | CL | numeral classifier |
| coll. |  | collective (numeral/derivative) |
| com. | COM | comitative (case) |
| comp. |  | comparative (derivative/converb) |
| compl. |  | completive (converb) |
| conc. |  | concessive (mood/converb) |
| cond. | COND | conditional (converb/copula) |
| conf. | CONF | confirmative (temporal-aspectual form) |
| conn. | CONN | connective (case) |
| contemp. |  | contemporal (converb) |
| conv. | CV | converb (form) |
| coop. |  | cooperative (voice) |
| cop. | COP | copula/r (word/structure) |
| corr. |  | corrogative (particle) |
| dat. | DAT | dative (case) |
| ded. |  | deductive (temporal-aspectual form) |
| del. |  | delimitative (numeral) |
| deont. |  | deontic (converb) |
| der. |  | derivative (form) |
| des. |  | desiderative (mood) |
| dir. |  | directive (case) |
| distr. |  | distributive (numeral) |
| dub. |  | dubitative (mood) |
| dur. | DUR | durative (temporal-aspectual form) |
| emph. | EMPH | emphatic (particle/construction) |
| ess. |  | essive (derivative) |
| excl. |  | exclusive (form of 1p. pl.) |
| exp. |  | expanded (suffix variant) |

```
fem. feminine (form)
fin. FIN final (converb)
fut. FUT futuritive (form/participle)
gen. GEN genitive (case)
hab. habitive (participle)
imp. imperative (mood)
imperf. IMPERF imperfective (form/participle/converb)
incl. inclusive (form of 1p. pl.)
ind. indicative (mood)
indef. INDEF indefinite (form/case/mood)
indir. indirect (mood)
instr. INSTR instrumental (case)
interr. INTERR interrogative (mood/particle/construction)
loc. locative (case)
masc. masculine (form)
mod. modal (converb)
moder. moderative (derivative)
multipl. multiplicative (numeral)
narr. narrative (temporal-aspectual form)
neg. NEG negative (particle/form)
nom. nominative (case)
    NOMLZ nominalizer
obj. OBJ objective (perspective)
obl. oblique (case/s)
    ONOM onomatopoetic (word/expression)
opt. optative (mood)
part. P participle (form)
pass. passive (voice)
    PCLE particle
pauc. paucal (number)
perf. PERF perfective (form/participle/converb)
perm. permissive (mood)
pl. PL plural (number)
plurit. pluritative (voice)
poss. POSS possessive (derivative/case/pronoun)
pot.
prec.
preced.
pred.
prep.
prescr.
priv.
progr.
pros.
    PROGR
potential (mood)
precative (mood)
precedentive (converb)
predicative (function)
preparative (converb)
prescriptive (mood)
privative (construction/case)
progressive (construction/form)
prosecutive (derivative/case)
px PX possessive suffix
qual. qualificational (participle)
recipr. reciprocative (voice)
refl. REFL reflexive (declension)
res. resultative (participle/temporal-aspectual form)
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| rx |  | reflexive suffix |
| :--- | :--- | :--- |
| seq. | SEQ | sequential (converb) <br> sg. |
| soc. | SG | singular (number) <br> sociative (case) |
| subj. |  | SUBJ |
| succ. |  | subjective (perspective) <br> successive (converb) |
| term. | TERM | terminative (converb/temporal-aspectual form) <br> top. |
| topicalized (constituent) |  |  |
| transl. |  | translative (derivative) |
| var. |  | variant (suffix) |
| vol. | VOL | voluntative (mood) <br> predicative personal ending |

## CHART OF ROMANIZATION

In this volume, the letters of the Mongol alphabet are Romanized according to the following chart. The chart also includes a selection of linear and non-linear (ligatural) combinations of letters. The letters are presented in a horizontalized (right-to-left) orientation. The actual direction of writing in running text is vertical. The software used to produce the Mongol letters in the chart was designed by Philip Barton Payne (1998).

|  | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| ae |  |  | $L$ |
| b | $\vartheta$ | $\vartheta$ | 10 |
| be |  |  | $b$ |
| bl |  | $\theta$ |  |
| bu | $\vartheta$ | $\vartheta$ | $\vartheta$ |
| c | = | $\pm$ | = $\mathbf{c x}$ |
| cz |  | $\pm$ | = czx |
| d | $\triangle$ | $\triangle$ | = dx |
| dz | 上 | 上 | $=\mathrm{dzx}$ |
| e |  |  | 1 |
| f | ف | ف̇ |  |
| fe |  |  | 6 |
| fl |  | * |  |
| fu | $\hat{\theta}$ | ஸ์ | $\hat{\theta}$ |
| g | J | J | 4 |
| ge |  |  | $b$ |
| gl |  | v |  |
| gu | $\theta$ | $\theta$ | $\theta$ |
| h | $\wedge$ | $\wedge$ | = hx |
| i/j | د | $د$ | $\checkmark$ |
| k | ${ }^{3}$ | $\downarrow$ |  |
| ke |  |  | $b$ |
| kl |  | H |  |
| ku | $\theta$ | $\theta$ | $\theta$ |
| 1 | $\pm$ | 1 | - |
| m | $\pm$ | $\pm$ | 0 |
| ml |  | 2 |  |


| n | i | 」 | 1 |
| :---: | :---: | :---: | :---: |
| 0 |  |  | 0 |
| p | $\checkmark$ | $\leqslant$ |  |
| pe |  |  | 15 |
| pl |  | ＊ |  |
| pu | ¢ | 个 | $\vartheta$ |
| q | $\cdots$ | $\stackrel{-}{4}$ | $\mu$ |
| qh | － | － | H |
| r | $y$ | $y$ | y |
| S | 4 | 4 | $\stackrel{4}{4}$ |
| sh | 4 | 4 | N |
| t | $\rightarrow$ | ص | $\rho$ |
| ＇t |  | $\forall$ | ＝＇tx |
| tz | 上 | 士 | ＝tzx |
| u | － | $\bigcirc$ | $\vartheta$ |
| v／a | $\stackrel{ }{+}$ | 」 | $\stackrel{ }{ }$ |
| w／e | 1 | 1 | ＝Wx |
| $\mathbf{x}$ |  | － | － |
| y | 」 | $\checkmark$ | $=\mathrm{yx}$ |
| Z |  |  | $\stackrel{ }{ }$ |
| zh | 0 | 0 | $=\mathbf{z h x}$ |

The chart includes the commonly used Galig letters $\mathbf{d z} \mathbf{f} \mathbf{h k p t z} \mathbf{~ z h}$ ．Practical presenta－ tions（and typefaces）of the Mongol alphabet often contain a number of additional sequences of letters（digraphs and trigraphs），notably $\mathbf{v h}$（initial $\mathbf{h}$ ，when used for the velar fricative $x$ ）， $\mathbf{v g}$（for the velar nasal ${ }^{*} n g$ ）， $\mathbf{l h}$（for the marginally occurring voiceless lateral phoneme $l h$ ），ui for the rounded front vowels $* \ddot{\partial} * \ddot{u}$ ），ux（for final $* \ddot{u}$ in mono－ syllables），va ve vi vo vu vui vux（for initial vowels，when written with the aleph）．

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4 Khamnigan
Mongol
Buryat
Dagur
Ordos
Oirat Kalmuck Moghol Shira Yughur Mongghul Mangghuer Bonan Santa

## LANGUAGE MAP

..... the maximum limits of the Mongol empire (12th to 14th cc.) (the northeastern limit is unspecified)
-.- the current state border of the Republic of Mongolia
X the approximate location of the Mongolic 'homeland'
The shaded area shows the modern distribution of Mongol proper, including Khalkha (Chapter 7) and other dialects (Chapter 8). The other Mongolic languages are indicated by numbers (with reference to the chapters in this volume):

## CHAPTER ONE

## PROTO-MONGOLIC

Juha Janhunen

Proto-Mongolic is the technical term for the common ancestor of all the living and historically attested Mongolic languages. By definition, Proto-Mongolic was spoken at a time when the differentiation of the present-day Mongolic languages had not yet begun. Like all protolanguages, Proto-Mongolic is an abstraction that can only be approached by the comparative and diachronic analysis of the synchronically known Mongolic languages. For the very reason that Proto-Mongolic is not actually attested our understanding of it will always remain imperfect. However, compared with many other Eurasian protolanguages, Proto-Mongolic is nevertheless relatively easily accessible due to the fact that the genetic relations between the Mongolic languages are even synchronically fairly transparent and, consequently, chronologically shallow.

The absolute dating of Proto-Mongolic depends on when, exactly, the linguistic unity of its speakers ended. For historical reasons it is commonly assumed that this happened only after the geographical dispersal of the ancient Mongols under Chinggis Khan and his heirs, in any case not earlier than the thirteenth century. This means that the presentday differences between the Mongolic languages are likely to be the result of less than 800 years of divergent evolution. If this is so, the Mongolic languages offer a laboratory example on how far linguistic evolution and diversification can take a language during such a limited time span. Perhaps even more interesting is the fact that the Mongolic languages have clearly not evolved at a uniform pace, for some of them, like Khamnigan Mongol, are conspicuously conservative and still relatively close to Proto-Mongolic, while others, like the languages of the Gansu-Qinghai complex, have undergone much more rapid and, as it seems, fundamental changes.

Philological evidence for the shallow dating of Proto-Mongolic is provided by the written documents surviving from the times of the historical Mongols and representing the Middle Mongol and Written Mongol languages. It is important to note that neither Written Mongol nor Middle Mongol is identical with Proto-Mongolic. Especially in the case of Written Mongol, including Preclassical Written Mongol, the inherent anachronism of the language makes a direct comparison with any particular diachronic stage of Mongolic impossible, or at least controversial. Nevertheless, it may confidently be said that the central properties of Written Mongol, like also the preserved sources on Middle Mongol, reflect a spoken language that was very close to the reconstructed idiom that emerges from the comparative analysis of the living Mongolic languages.

The chronological shallowness of Proto-Mongolic has two important consequences for linguistic conclusions. On the one hand, its grammatical structure and lexical resources can be reconstructed in great detail and with considerable accuracy, allowing it to be examined for synchronic purposes almost like a living language. On the other hand, Proto-Mongolic does not take us very far back in time, which makes its further diachronic analysis problematic, especially in view of external comparisons. The time gap of up to several thousands of years that separates Proto-Mongolic from some of the more ancient protolanguages of Eurasia can only imperfectly be filled by the methods of
diachronic linguistics, such as internal reconstruction. Therefore, any external comparisons using Proto-Mongolic material should be carried out with the necessary caution, and with a proper understanding of the chronological discrepancy.

One aspect that can never be reconstructed by the comparative method is the internal diversity within Proto-Mongolic. Like all real languages, and like all protolanguages, Proto-Mongolic was certainly no uniform linguistic entity. It must have had some areal and social variation, part of which may survive in the synchronic material of the Modern Mongolic languages. Also, due to the distorting effect of the comparative method, it may well have had more grammatical and lexical idiosyncrasies and irregularities than can be reconstructed on the basis of the synchronic material. However, for methodological reasons we have no alternative to defining Proto-Mongolic as a maximally uniform and regular idiom, from which the actual synchronic diversity within Mongolic can be derived.

## PERIODIZATION

Since Proto-Mongolic is the reconstructed ancestor of the Modern Mongolic languages, it can only contain features that can be induced from the extant language material. The application of internal reconstruction and external comparisons to the Proto-Mongolic corpus do, however, yield limited information also on the stages preceding ProtoMongolic. These stages may be termed Pre-Proto-Mongolic. Correspondingly, any phenomena chronologically younger than Proto-Mongolic may be identified as Post-Proto-Mongolic. Unlike Proto-Mongolic, which represents a single point on the time scale, both Pre-Proto-Mongolic and Post-Proto-Mongolic are open continuums. Pre-ProtoMongolic, in particular, extends indefinitely far back in time as long as diachronic conclusions are possible.

In practice, the conclusions that can be made by the method of internal reconstruction concerning the structural and material properties of Pre-Proto-Mongolic involve mainly the linguistic stage immediately preceding Proto-Mongolic. This stage may also be called Late Pre-Proto-Mongolic, and in terms of absolute chronology it may be dated to the last centuries preceding the rise of the historical Mongols. Some of the earlier stages of Pre-Proto-Mongolic can be approached through the analysis of the traces of areal contacts with neighbouring language families, notably Turkic and Tungusic. Also, there is the tantalizing possibility that future research will further increase the time depth of reconstruction by giving us more insights into the Para-Mongolic linguistic diversity that is likely to have coexisted with Late Pre-Proto-Mongolic.

Among the extant Mongolic languages, the only one that may give us some direct information on the linguistic characteristics of Late Pre-Proto-Mongolic is Written Mongol, whose orthographical and morphological anachronisms include a few peculiarities that appear to reflect diachronic stages extending beyond Proto-Mongolic. Written Mongol is also likely to preserve traces of the dialectal diversity that actually existed in both Proto-Mongolic and Pre-Proto-Mongolic times. This diversity was extinguished at the level of the spoken language by the ethnic and political (re)unification of the Mongols under Chinggis Khan.

We might also say that the period of the Mongol empire functioned as a kind of linguistic bottleneck. Prior to the time of Chinggis Khan, the speech of the ancient Mongols may be assumed to have been a conglomeration of geographically dispersed tribal idioms, including those of the Naiman, the Kereit, the Mongols proper, and others. These tribal idioms seem to have been mutually intelligible, and they may therefore be classified as dialects of Late Pre-Proto-Mongolic. However, in the absence of factual information we
will never know what the actual degree of diversity was. In any case, with the victory of Chinggis Khan, intensive linguistic unification took place, and, as a result, the primary dialects were lost in favour of a more homogeneous Proto-Mongolic language. The latter, in turn, yielded a number of Post-Proto-Mongolic secondary dialects, to which the Modern Mongolic languages can be traced.

For some purposes, it is useful to make a distinction between the concepts of ProtoMongolic and Common Mongolic. While Proto-Mongolic implies any reconstructed feature that actually derives from the Proto-Mongolic period, Common Mongolic can also comprise Post-Proto-Mongolic features shared by the Mongolic languages on an areal basis. Due to the geographical closeness and genetic compactness of the core group of the Modern Mongolic languages, it is often impossible to draw an unambiguous line between primary genetic retentions and secondary areal innovations. In many cases, even very late elements, especially in the lexicon, can exhibit the same type of correspondences as the inherited component of the modern languages. In case of ambiguity it is always safer to speak of Common Mongolic, rather than Proto-Mongolic. This is true of both lexical elements and structural properties.

Technically speaking, there are two types of criterion that can be used in order to establish the Proto-Mongolic origin of any given feature. The first type may be identified as distributional, and it is based on the linguistic fact that Proto-Mongolic features tend to have a wide distribution in the modern languages. In particular, any feature that is attested in, or perhaps restricted to, two or more peripheral Mongolic branches, such as Moghol, Dagur, or the Gansu-Qinghai complex, is likely to represent common Proto-Mongolic heritage. However, it should be kept in mind that the absence of a feature from the peripheral languages does by no means rule out the possibility of its Proto-Mongolic origin.

The second type of criterion may be identified as documentary, and it is based on the philological circumstance that written documents dating from either Middle Mongol or early Preclassical Written Mongol are more or less contemporaneous with ProtoMongolic. If a linguistic feature is attested in such documents, we can infer that it was present in the Proto-Mongolic language. Again, it should be noted that the presence of such documentation is no prerequisite for linguistic reconstruction. Proto-Mongolic is and remains a product of the comparative method, and the fact that idioms close to it happen to be recorded in written documents is only of secondary interest from the reconstructive point of view. In this respect, Proto-Mongolic is comparable with any other relatively recent protolanguage which once coexisted with a close-lying literary standard (cf. e.g. the case of Latin vs. Proto-Romance).

## DATA AND SOURCES

The application of the comparative method to the diachronic analysis of Mongolic became possible only when the synchronic investigation of the living Mongolic languages was initiated by scholars such as M. A. Castrén, G. J. Ramstedt, Władysław Kotwicz, Andrei Rudnev, and others. Much of the early comparative work was focused on listing the differences between Written Mongol and the various Modern Mongolic languages and dialects, notably Khalkha. Middle Mongol provided another concrete point of comparison. Unfortunately, the easy availability of a diachronic perspective through Written Mongol and Middle Mongol has always tended to remain an obstacle, rather than a stimulation, to the strictly linguistic understanding of Proto-Mongolic.

The actual comparative work on Mongolic has become increasingly challenging with the introduction of fresh synchronic data on the previously little-known peripheral
languages of the family. Even so, there are still several Mongolic languages, including, in particular, those of the Gansu-Qinghai complex, that remain not fully integrated into the comparative framework. While it is generally assumed that these languages derive from a protolanguage identical with the reconstructable ancestor of the more centrally located Mongolic idioms, many diachronic details remain unclear, making any definitive conclusions concerning the genetic and areal developments impossible for the time being.

As in all diachronic linguistics, phonology has always played a central role in Mongolic comparative studies. Two constantly recurrent issues include the role of the 'laryngeals' and the phenomenon of vowel breaking, as discussed, among others, by G. J. Ramstedt (1912), Paul Pelliot (1925), Nicholas Poppe (1956), and Juha Janhunen (1990, 1999). A more temporary controversy was involved in the dispute over the so-called 'primary long vowels', as discussed by Masayoshi Nomura (1959), Nicholas Poppe (1962), Shirô Hattori (1970), and Gerhard Doerfer (1969-74). Among the multitude of other contributions to Mongolic diachronic phonology, the brief but innovative paper by Eugene Helimski (1984) on Gansu-Qinghai Mongolic deserves to be singled out.

While much of the comparative work on Mongolic in the past has been a side-product of general Altaic studies, as developed by Ramstedt (1952-66) and Poppe (1960, 1965, 1975), the important handbooks by Poppe (1955) and G. D. Sanzheev (1953-64) focus specifically on the Mongolic languages. Poppe's work, in particular, remains by far the most explicit and internationally accessible synthesis of Mongolic comparative phonology and morphology. With the exception of the brief synopsis by Doerfer (1964), later general works, such as those by P. A. Darvaev (1988) and A. A. Darbeeva (1996), offer no substantially new insights. Tömörtogoo (1992) is nevertheless useful as a bibliographical tool, while G. C. Pyurbeev (1993) introduces some aspects of comparative syntax.

Outside the general Altaic framework, relatively little has been written on the dialectological and chronological aspects of Proto-Mongolic. An attempt to approach Late Pre-Proto-Mongolic, or 'Ancient Mongolian', largely by the method of internal reconstruction, was nevertheless made by Poppe (1976). Another important contribution is that by Michael Weiers (1970) on the periodization of Proto-Mongolic in relationship to Written Mongol and Middle Mongol.

## SEGMENTAL PHONEMES

The Proto-Mongolic vowel system comprised seven qualities, divided into three harmonic pairs and one neutral vowel. The harmonic pairs are conventionally written as ${ }^{*} u * \ddot{u}$ for the high rounded vowels, ${ }^{*} o{ }^{*} \ddot{0}$ for the non-high rounded vowels, and ${ }^{*} a * e$ for the unrounded vowels (Table 1.1). The distinction within each harmonic pair was based on the palato-velar correlation, opposing the back vowels $*_{a} *_{o} *_{u}$ to the front vowels ${ }_{e}{ }^{*} \ddot{o} * \ddot{u}$. In this context it remains irrelevant whether the unrounded front vowel ${ }^{*} e$ was phonetically a low [ä] or a mid-high [e].

TABLE 1.1 PROTO-MONGOLIC VOWELS

|  | ${ }^{*} i$ | $*_{\ddot{u}}$ |
| :--- | :--- | :--- |
| $*_{o}$ |  | $*_{\ddot{O}}$ |
| ${ }^{*} a$ |  | ${ }^{2}$ |

The isolated position of the neutral vowel $*_{i}$ immediately suggests that in Pre-ProtoMongolic there must have been a harmonic opposition between a front $* i$ and a back $* i$. This is confirmed by the presence in both Middle Mongol and the language underlying Preclassical Written Mongol of an opposition between $k i<* k i$ and $q i<* k i$, still synchronically preserved in Moghol (and, as it seems, Santa), as in Moghol ceqin 'ear' $<*$ ciqi/n < *cïkï/n. Obviously, the paradigmatic merger of the vowels $*_{i} *_{i}$ and the accompanying restructuring of the vowel system took place only in Late Pre-Proto-Mongolic. Technically, an original Pre-Proto-Mongolic * $i$ can be reconstructed for all words involving Proto-Mongolic *i in a back-vocalic context, or in the presence of a documented back velar consonant. Under other conditions, however, the distinction remains beyond the reach of internal evidence.

The reconstruction of ${ }^{i}$ of the initial syllable is to some extent complicated by the phenomenon known as palatal breaking, in which *i was 'broken' into two segments under the influence of the vowel of the second syllable ( $\left.{ }^{*} a * o{ }^{*} u * \ddot{o} * u ̈\right)$, as in *mingga/n 'thousand' > Khalkha myanggh. Palatal breaking was basically an areally restricted Post-Proto-Mongolic innovation, most abundantly attested in Mongol proper, as well as in Buryat and Dagur. However, the phenomenon was anticipated and accompanied by the similar process of prebreaking, which involved the assimilation of the original back $*_{i}$ before its merger with the front *i, as in *mika/n 'meat' > *maka/n > Khalkha max. Prebreaking seems to have started already in Late Pre-Proto-Mongolic, and in some lexical items it was completed before the dissolving of Proto-Mongolic, leaving only Written Mongol more or less free of its impact.

While palatal breaking is a mechanism in which $*_{i}$ is influenced by the vowel of the following syllable, some Mongolic languages also show the process of palatal umlaut, in which * $i$ influences the vowel of a preceding syllable, as in *mori/n 'horse' $>$ Kalmuck mör $/ n$. Like palatal breaking, palatal umlaut seems to have been a Post-Proto-Mongolic innovation, but its parallel presence in both Oirat and the dialects of Mongol proper gives it, at least, a Common Mongolic dimension. It goes without saying that both breaking and umlaut have had a considerable impact on the subsequent evolution of the Modern Mongolic vowel paradigms.

In spite of claims made to the contrary, it has been impossible to establish any quantitative correlation for the Proto-Mongolic vowels. While virtually all the Modern Mongolic idioms have distinctive long (double) vowels, these are of a secondary contractive origin. Occasional instances of irregular lengthening are observed in most of the modern languages, and in a small number of cases there would seem to be a correspondence between two peripheral languages, notably Dagur and (Huzhu) Mongghul, as in Dagur mood 'tree, wood' = Mongghul moodi id. $<$ *modu/n. In spite of the seemingly perfect match, such cases are too few and involve too many counterexamples to justify any diachronic conclusion other than that of accidental irregular convergence.

The Proto-Mongolic consonant system is best to be reconstructed as having had fifteen basic phonemes, representing four places of articulation: labial, dental, palatal, and velar. The four places were, however, distinguished only for the weak stops $* b * d * j * g$. The strong stops $*_{t} *_{c} *_{k}$ had a gap in the labial column, while the nasal system ${ }^{*} m{ }^{*} n * n g$ had no palatal member. The palatal stops $*_{c}{ }^{*} j$ were apparently realized as affricates. The continuant obstruents comprised the dental sibilant $*_{S}$ and the velar spirant * $x$, but no labial or palatal segment. Additionally, there were the two liquids $* l * r$ and the palatal glide ${ }^{*} y$ (Table 1.2).

The gaps in the system suggest that there may have been additional consonants still in Late Pre-Proto-Mongolic. The strong labial stop * $p$ can actually be reconstructed on

TABLE 1.2 PROTO-MONGOLIC CONSONANTS

|  | *t | ${ }^{*}{ }_{c}$ | *k |
| :---: | :---: | :---: | :---: |
| * $b$ | *d | ${ }^{j}$ | *g |
|  | $*_{S}$ |  | * $x$ |
| * $m$ | * $n$ |  | * $n g$ |
|  | $* l$ |  |  |
|  | $*_{r}$ |  |  |
|  |  | *y |  |

internal evidence for some morphemes showing an irregular alternation between ${ }^{*} b$ or ${ }^{*} m$ and $* x$, as in *depel 'garment' $>*$ debel $>$ Oirat dewl vs. Common Mongolic *dexel $>$ *deel, *küpün 'man’ > *kümün > Oirat kümn vs. Common Mongolic *küxün > *küün. For some suffixal morphemes, including the markers of the instrumental case (*-pAr) and the reflexive declension (*-pA/n), ${ }^{*} p$ can be reconstructed on the basis of Written Mongol, which shows the alternation $\mathbf{b}: \mathbf{g} \mathbf{q h}$. Even so, it would be incorrect to reconstruct $* p$ as a separate phoneme for the Proto-Mongolic stage. The occasional claims that * $x$ was still pronounced as a labial spirant [ $\phi$ ] in Proto-Mongolic are apparently also incorrect.

The gaps in the system also reveal points at which Proto-Mongolic had a potential of introducing new consonant phonemes. The first segment to be added was the palatal sibilant *sh, which may be characterized as Common Mongolic; it was introduced immediately after the Proto-Mongolic stage in loanwords such as *shasin 'religion' (from Sanskrit), *shabi 'disciple' (through Chinese). Other segments, including a new strong labial stop $(p)$ as well as two labial continuants $(f w)$, have been added later to the individual systems of several Modern Mongolic languages and dialects, where they still tend to retain a status of marginal phonemes. Generally, all the Modern Mongolic languages retain the Proto-Mongolic consonant system as the skeleton of their own synchronic systems.

Due to the merger of the unrounded high vowels $*_{i}{ }^{*} i$ in Late Pre-Proto-Mongolic, there briefly existed a distinction between the velars $* k * g * x$ and a corresponding series of back velars or uvulars, of which the strong stop ${ }^{*} q$ is the one most reliably attested. Although, technically speaking, the opposition *ki vs. ${ }^{*} q i$ was present at exactly the Proto-Mongolic stage, its low functional load allows it to be ignored for most reconstructive purposes. It is true, the natural tendency to develop positional variants for the velar consonants depending on the vocalic environment is observable in several (though not all) Modern Mongolic languages, in which only the back vowels *a*o *u have conditioned the spirantization of the velars, as in Oirat ax 'elder brother' vs. ek 'mother' < *aka vs. *eke.

It has to be noted that the opposition between the dental and palatal stops in ProtoMongolic was absent before the vowel $* i$. In this position, only the palatal stops $*_{c} *_{j}$ were permitted, while before all other vowels the segments ${ }^{*} c$ vs. ${ }^{*} t$ and ${ }^{*} j$ vs. ${ }^{*} d$ could freely contrast. Words containing the sequences $* t i * d i$ are therefore invariably Post-Proto-Mongolic, though some of them have a Common Mongolic distribution, e.g. *tib 'continent' (from Sanskrit). This suggests that there had been a neutralizing process in Pre-Proto-Mongolic, changing ${ }^{*} t{ }^{*} d$ into ${ }^{*} c{ }^{*}$ before the vowel ${ }^{*} i$. There is, indeed, occasional evidence of this process in the comparative material, cf. e.g. Khalkha ghada(a) 'outside' < *gadaxa < *gadïxa vs. Buryat gazaa id. < *gajaxa $<$ *gajixa $<$
*gadïxa. Unfortunately, when no such evidence is available it is impossible to determine the exact Pre-Proto-Mongolic source of the segments ${ }^{*} c{ }^{*} d$ before the vowel ${ }^{*}$.

It would be tempting to assume that the developments ${ }_{t i}>{ }^{*} c i$ and ${ }^{*} d i>*_{j i}$ were due to palatal assimilation, conditioned by the palatal quality of $* i$. Since, however, this assimilation was not confined to words with a palatal vocalism, it must have taken place only after the merger of the vowels $*_{i}$ and $*_{i}>*_{i}$. A possible order of all the processes involved would, then, be: (1) *ki> *qï, (2) *ï> *i, (3) * $t i * d i>* c i{ }^{*} j i$, (4) *qi> *ki. The first three of these processes may be dated as Late Pre-Proto-Mongolic, while the last, involving the loss of the opposition between the velar and postvelar sets of consonants, was still going on in Proto-Mongolic.

The Proto-Mongolic velar spirant *x, which also represented original Pre-ProtoMongolic *p, was probably pronounced as a laryngeal [ h ], which was gradually being lost. The loss of medial intervocalic * $x$ may, indeed, be regarded as Common Mongolic, for the segment is only attested in Written Mongol (g qh) as well as, occasionally, in Middle Mongol, as in *kaxan 'emperor' > Written Mongol qaqhav, Middle Mongol kaxan (qahan) or ka'an vs. Common Mongolic *kaan. Initial *x was, however, regularly preserved in Middle Mongol, and direct reflexes of it are still synchronically present in two peripheries of the Mongolic family: Dagur in the northeast and the Gansu-Qinghai complex in the south, as in *xulaxan 'red' > Middle Mongol xula'an (hula'an), Dagur xulaang, Mongghul fulaan vs. Common Mongolic *ulaan. Rather unexpectedly, initial * $x$ is not reflected by the Written Mongol orthography.

The loss of the intervocalic 'laryngeal' ${ }^{*} x$ is, consequently, the main source of the long (double) vowels in the Mongolic languages. In the case of two identical vowels, the contraction automatically produced a long monophthong, but two different vowels yielded initially a diphthongoid. Diphthongoids ending in the vowels * $u * \ddot{u}$ are preserved as such only in Dagur, while elsewhere they have undergone monophthongization, as in *naxur 'lake' > Dagur naur vs. Khalkha nuur. Diphthongoids ending in the vowel *i $\left(<*_{i} \& * i\right)$ have, however, diphthongoid reflexes in most languages, though monophthongization also occurs. In these sequences, the presumably original intervocalic *x seems to have been palatalized into *y already in Late Pre-Proto-Mongolic, as in (*saxïn >) Proto-Mongolic *sayin 'good'> Khalkha saing vs. Oirat sään.

In accordance with their contractive origin, the diphthongoids of the modern languages are normally reflected in Written Mongol as bisyllabic sequences (with intervocalic $\mathbf{g} \mathbf{q} \mathbf{h} \mathbf{j}$ ). In a few items, however, Written Mongol has simple vowel sequences ending in $\mathbf{u}$. In the modern languages, such sequences are indistinguishable from the corresponding contractive diphthongoids, but the question is whether there was a diachronic difference. There are several possibilities: Proto-Mongolic may actually have had such vowel sequences, or the sequences may have contained an intervocalic consonant not indicated in the Written Mongol orthography, or the vowel may represent the vocalized reflex of an original syllable-final consonant (possibly * $w$ ). The evidence remains inconclusive, but it is perhaps safest to make a distinction between $* x$ and $\varnothing$ (zero) when reconstructing the sources of the diphthongoids, e.g. Written Mongol vgulav 'cloud' for *exüle/n vs. taugae 'history' for *te(Ø)üke.

A related question concerns the origin of the diphthongoids ending in *i. In final position, such diphthongoids are rendered as simple vowel sequences in Written Mongol. Since this is a regular convention, the sequences may be reconstructed as contractive diphthongoids of the normal type, e.g. Written Mongol bui for *buyi ~ *büyi [copula], talai 'sea' for *dalayi > Common Mongolic dalai. It cannot, however, be ruled out that the language originally had a distinction between ${ }^{*} x$ and $\varnothing$ also before the vowel
$*_{i}\left(<*_{i}\right.$ and $\left.*_{i}\right)$. A possible candidate for a medial diphthongoid without an original intervocalic consonant is Written Mongol naimav 'eight', for *na(y)ima/n > Common Mongolic *naima/n.

## WORD STRUCTURE

The most important phonotactic restriction in Proto-Mongolic was formed by vowel harmony, which allowed only either back or front vowels to occur within a phonological word. Palatal harmony was originally the only phenomenon that conditioned the occurrence of the vowels ${ }^{*} a * u$ (back) vs. $e^{*} \ddot{u}$ (front) in non-initial syllables, as in *kara 'black' vs. *nere 'name', *olan 'many' vs. *mören 'river', *kura 'rain' vs. *üre ‘seed', *casu/n 'snow' vs. *temür 'iron', *xodu/n 'star' vs. *xödü/n 'feather', *ulus 'people’ vs. *xüsü/n 'hair'. There seem to have been no exceptions to the palatal harmony in ProtoMongolic, which means that the phenomenon might also be described by postulating a markedness hierarchy, or, alternatively, a set of neutralized archiphonemes $\left({ }^{*} A^{*} U\right)$.

An important phenomenon that has affected the manifestations of vowel harmony in many Modern Mongolic languages, including Mongol proper and all of its northern and eastern neighbours (Khamnigan Mongol, Buryat, Dagur), is vowel rotation, in which the palato-velar pairs have become rotated so that the palatal members ( ${ }^{*} \ddot{u} * \ddot{o} * e$ ) have received a raised tongue position in comparison with their velar counterparts ( $\left.{ }^{*} u *{ }^{*} * a\right)$. At the same time, the palatal members have undergone velarization, resulting in the replacement of the original palatal harmony (back vs. front) by an apertural harmony (low vs. high). During an intermediate stage in the process (as in modern Khalkha), the original back vowels seem also to have been accompanied by a varying degree of pharyngealization. Since vowel rotation has not necessarily removed any oppositions, it is difficult to establish whether it may already have been present as in incipient tendency in Proto-Mongolic. In the modern languages it has, however, often resulted in various paradigmatic neutralizations.

Apart from palatal harmony there was a partial labial harmony (labial attraction), because of which the non-high rounded vowels *o $* \ddot{\partial}$ of non-initial syllables were not allowed to be combined with any of the vowels $*_{a} *_{e}{ }^{*} u * \ddot{u}$ of the initial syllable. This restriction was, already in Proto-Mongolic, being complemented by another rule which assimilated the vowels $* a * e$ of non-initial syllables into $*_{o} *_{0}$ after an initial syllable also containing *o *̈̈, as in *kola 'distant' > *kolo, *köke 'blue' > *kökö. Owing to these phenomena, it is difficult to distinguish in the comparative material the combinations * $o-a$ vs. ${ }^{*} o-o$ and $* \ddot{\partial}-e$ vs. ${ }^{*} \ddot{o}-\ddot{o}$. It is generally assumed that the original state is best preserved in (Preclassical) Written Mongol, but it remains unclear whether Written Mongol is really chronologically representative of Proto-Mongolic for this detail.

A similar problem is connected with the combination $*_{e-\ddot{u} \text {, which is generally pre- }}^{\text {en }}$ served in the language underlying Written Mongol, as in tamur 'iron' for *temür. It seems that Written Mongol in such cases represents a stage that is best identified as Late Pre-Proto-Mongolic, while Proto-Mongolic was characterized by the regressive assimilation of $* e-\ddot{u}$ into ${ }^{*} \ddot{-}-\ddot{u}$, e.g. *temür $>$ *tömür. In the modern languages, owing to the reduction and neutralization of most single vowels in non-initial syllables, the reflexes of *e-ü $>* \ddot{\partial}-\ddot{u}$ have generally merged with those of * $\ddot{\partial}-e>* \ddot{\partial}-0$. . None of these phenomena have exact back-vocalic analogies, but in sequences containing an intervocalic ${ }^{*} x$ the combinations * $\ddot{o}-e(f r o n t)$ and $* o-a$ (back) are indistinguishable from ${ }^{*} \ddot{u}-e$ and ${ }^{*} u-a$, respectively, as in *tuxa (or *toxa) 'number', *büxe (or *böxe) 'shaman'.

Importantly, the vowels $*_{a} *_{o}{ }^{u} u$ vs. ${ }^{*} e *_{\ddot{O}}{ }^{*} \ddot{u}$ were all distinguished in non-initial syllables following ${ }^{*} i\left(<*_{i} \& *_{i}\right)$ of the initial syllable, as in *sira $\left(<{ }^{*}\right.$ sïra $)$ 'yellow' vs. *sine 'new', * cino (< *cïno) 'wolf' vs. *silö 'soup', *cisu/n (< * cïsu/n) 'blood' vs. *sidü/n 'tooth'. Similarly, any vowel quality of the initial syllable could be combined with ${ }^{*} i(<* i \& * i)$ of the second syllable, as in *ami/n (<*ami/n) 'life' vs. *xeki/n 'head, beginning', *mori/n (<*mori/n) 'horse’ vs. *ökin ‘daughter’, *gulir (< *gulïr) ‘flour’ vs. *küril 'bronze', *bicig 'script'. Because of a variety of neutralizing developments, all Modern Mongolic languages have either lost or restructured most of the vowel combinations concerned.

Most of the vocalic phenomena reconstructable for the various stages of Mongolic, including palatal harmony, breaking, and umlaut, point to a systematic tendency of accumulating information into the initial syllable of the word. This tendency was probably prosodically manifested in Proto-Mongolic as the presence of an initial expiratory stress, which was lexically non-distinctive. Some Post-Proto-Mongolic developments, such as the widespread tendency of reduction and loss of all vowels in non-initial syllables, also point to initial stress, though there are counterexamples suggesting the loss of initial vowels or entire initial syllables, as in Middle Mongol umarta- vs. Common Mongolic *marta- 'to forget'. Altogether, prosodic features in Mongolic have always tended to be determined by positional factors, rather than vice versa.

The Proto-Mongolic syllable structure allowed only single consonants in the beginning (CV) and end (VC) of syllables, yielding medial clusters of maximally two segments (CC). Moreover, only the nasals $*_{m} *_{n} * n g$, the liquids ${ }^{*}{ }^{*} l l$, the sibilant ${ }^{*}$, and one set of non-palatal (non-affricate) stop obstruents were possible syllable-finally. Morphophonemic relationships, such as *bulag 'spring [of water]': gen. *bulag/u-n, allow the syllable-final stops to be identified with the weak series $* b * d * g$, which, consequently, may be viewed as unmarked with regard to the strong series. In clusters beginning with a nasal, only the labial nasal could be followed by another labial consonant $\left({ }^{*} m b\right)$, while both the labial and the velar nasal could be followed by a velar consonant (the types *mg *ngg). All nasals could be followed by a dental or a palatal consonant.

While most original consonant clusters can be easily verified, there are several examples of clusters beginning with the liquids $* r * l$ that are only preserved in a few peripheral languages, as in *yersü/n 'nine' > Bonan yersung vs. Common Mongolic *yesü/n, *caxarsu/n 'paper' > Khamnigan Mongol caarhu/n vs. Common Mongolic *caasu/n. In some cases, a vowel seems to have been inserted into such a cluster, as in *mölsü/n 'ice' > *mölisü/n > Khamnigan Mongol mulihu/n vs. Common Mongolic *mösü/n. In other cases the cluster can be reconstructed on the basis of Written Mongol, while the spoken languages show an irregular correspondence of single consonants, as in Written Mongol talbi- for *talbi- 'to place' > Dagur (*)tali- vs. Common Mongolic *tabi-.

The final segment of a stem determined the stem type, on which a number of suffixinitial morphophonological alternations depended. The basic division was into vowel stems and consonant stems. Before suffixes beginning with a vowel, normally ${ }^{*} i$, vowel stems required a connective consonant, normally $* y$, as in *aka 'elder brother' : acc. *aka/y-i. On the other hand, before suffixes beginning with a consonant, consonant stems required the connective vowels $* U\left({ }^{*} u * \ddot{u}\right)$ or ${ }^{*}\left(<*_{i} \& * i\right)$, as in $* a b-$ 'to take' : conv. mod. *ab/u-n, *gar 'hand' : instr. *gar/i-xar. The basic function of the connective segments was to block non-permitted phonotactic structures, such as vowel sequences and clusters of two (word-finally) or three (medially) consonants. Certain occurrences of the connective segments were, however, morphologically conditioned.

Consonant stems were subdivided into obstruent stems, ending in the stops $* b * d * g$ or the sibilant ${ }^{*} s$, and sonorant stems, ending in the nasals ${ }^{*} m{ }^{*} n * n g$ or the liquid $* l$. This division correlates with the alternation of weak and strong obstruents in certain suffixes, as in *ol- 'to find' : pass. *ol.da- vs. *ab- 'to take' : pass. *ab.ta-. Rather unexpectedly, the functional obstruent stems also comprised the stems ending in the liquid *r, as in *ger 'dwelling' : dat. *ger-tü/r vs. *gal 'fire’ : dat. *gal-du/r. This peculiarity, preserved in most Modern Mongolic languages, suggests that * $r$, at least word-finally, may originally (in Pre-Proto-Mongolic) have been a true obstruent. It is true, ${ }^{*} r$ seems also to have had a functional affinity with the other liquid $* l$, for neither of the two liquids was originally permitted in word-initial position. The only other consonant with this restriction was *ng. There are, however, several Common Mongolic words beginning with *l, e.g. *luu 'dragon' (from Chinese, through Uighur).

## WORD FORMATION

Apart from vowel harmony and the insertion of connective segments at the border of stem and suffix, Proto-Mongolic morphology was based on a rather mechanical agglutination of derivative and inflectional suffixes to essentially invariable stems. There were two major parts of speech which may be identified as nouns (nominals) and verbs (verbals), combined with two separate sets of suffixes, respectively. Morphological and syntactic details allow nouns to be further divided into substantives, pronouns, and numerals. Some nominal (including pronominal) stems, often with a defective or exceptional paradigm, functioned as adverbs and postpositions. Adjectival words were also basically nominal, though their derivatives could function as verbs, cf. e.g. *ca.ga.xan 'white' : ess. *ca.yi- 'to be white', *köke 'blue' : transl. *köke.re- 'to become blue'.

Nominal and verbal stems had a basically identical structure, and some stems (nominaverba) can actually be reconstructed as having had both a nominal and a verbal function, e.g. *emkü- 'to put into mouth': *emkü 'bite'. Such cases could perhaps be analysed as examples of zero derivation, but synchronically it is impossible to determine which of the two functions (nominal or verbal) should be viewed as derivationally primary. Both nominal and verbal stems could end in a vowel, the liquids $* l * r$, or any of the obstruents $* b$ ${ }^{*} d{ }^{*} s{ }^{*} g$. Importantly, however, there were no verbal stems ending in a nasal, while all the three nasals $*_{m} *_{n} *_{n g}$ are well attested as the final segments of nominal stems.

The nominal stems ending in the nasal ${ }^{*} n$ may be viewed as a separate stem type, perhaps best identified as the nasal stems (proper). There were two kinds of nasal stem: those ending in a morphophonologically stable ${ }^{n} n$ and those ending in an unstable or 'fleeting' $/ n$. The unstable */n was in a regular paradigmatic alternation with zero (Ø), as in *mori/n 'horse' : gen. *morin-u : acc. *mori/y-i. The fact that the unstable */n was not permanently present in the stem suggests that it may originally have been a suffix. Its original function remains, however, unclear; it may have been a derivative suffix, perhaps denoting a specific class of nouns, but it may also have been connected with the categories of number and case. It is probably relevant to note that the stems ending in the unstable */n were much more numerous than those ending in the stable $* n$, a situation that is still valid for many (though not all) Modern Mongolic languages.

In accordance with the two basic parts of speech in the language, the derivative suffixes that can be reconstructed for Proto-Mongolic may be divided into four types, depending on whether they produced (1) denominal nouns, (2) denominal verbs, (3) deverbal nouns, or (4) deverbal verbs. Each type of derivative had a specific set of
suffixes, many of which are still productive in the Modern Mongolic languages. From the structural point of view, the denominal derivative suffixes are relatively uninteresting, though some of them seem to have been extremely productive, such as *.t $U$ or *.tA. (y)i [possessive adjectival nouns], *.lA- [denominal verbs with a variety of functions]. Among the more restricted and less commonplace categories of derivation was gender (female sex), indicated by the denominal suffixes *.jin [female beings, from tribal names and age expressions] and *.gcin [female animals, from colour terms].

A higher degree of grammaticalization was present in the deverbal verbs, most of which may be understood as expressions of the category of voice, comprising the subclasses of passive, causative, reciprocative, cooperative, and pluritative verbs. Passives were marked by the suffix variants *. $d A$ - (after sonorant stems), *.tA- (after obstruent stems), and *.g.dA- (after vowel stems); causatives by *.gA- (after sonorant stems and stems in ${ }^{*} r$ ), *.kA- (after obstruent stems), and *.xA-, *.l.gA- or *.xUl- (after vowel stems); reciprocals by */U.ldU-; cooperatives by */U.lcA-; and pluritatives by *.cAgA-. The details of the actual formation of these derivatives were already in Proto-Mongolic to some extent lexicalized. Some stems had, for instance, two alternative causatives, as in *bayi- 'to be' : caus. *bayi.xul- or *bayi.lga-. There were also double causatives, as in *gar- 'to exit' : *gar.ga.xul- 'to cause to take out'.

Deverbal nouns were likewise inherently liable to be grammaticalized, and it is in some cases difficult to draw a distinction between derivational deverbal nouns and the inflectional category of participles (verbal nouns). The basic criteria are the degree of productivity and verbality of the derived nominal stems. Participles may be defined as fully productive deverbal nouns, which still function as verbal headwords in the sentence. In Proto-Mongolic there were, however, many cases of lexicalized participles which had apparently lost their verbal characteristics (or never developed them), like *ide- 'to eat' : *ide.xe/n 'food' vs. part. imperf. *ide-xe. On the other hand, some ProtoMongolic and/or Common Mongolic deverbal nouns, like those in *.l (general action) and *.mAr (potential action), function very much like participles, but are, nevertheless, in Mongolic studies normally counted as derivational deverbal nouns.

One of the most difficult borderline cases involves the actor nouns or agentive participles in *-g.ci or *-xA.ci. Normally listed as participles, these forms seem, indeed, to have had a number of verbal functions in Proto-Mongolic. Many actual examples of actor nouns are, however, better analysed as lexicalized regular nouns, like *jiru.g.ci or *jiru.xA.ci 'artist', from *jiru- 'to draw, to paint'. In most Modern Mongolic languages, the verbal features of the actor nouns are absent or very marginal. It may also be noted that of the two alternative suffix variants, the variant *-xA.ci is based on the imperfective participle suffix ${ }^{*}-x A$, as in part. imperf. *jiru-xA '(the act of) drawing', while the variant *-g.ci is a secondary derivative of the non-productive deverbal noun in *.g, as in *jiru.g 'picture'.

Most of the Proto-Mongolic suffixes for deverbal nouns yielded clearly nominal formations with restricted productivity and a tendency of lexicalization. The derivatives concerned may be characterized as various types of general action nouns, such as those in *.dAl, *.lAng, *.lgA, *.ltA, *.li, *.m, *.mji, *.mtA, *.r. Some were, however, more specialized and yielded nouns denoting, for instance, place of action: *.ri, *.xUri or *.xUli; result or object of action: ${ }^{*} . j A,{ }^{*} . m A g,{ }^{*} . n g,{ }^{*} . s i$; state or quality resulting from action: *. $x U$ or *.xUn, ${ }^{*} . g A y i$ or *.gAr, *.mAl; performer of action: *. $x U l$; or instrument of action: *.xUr. It is easy to see that many of these suffixes contain certain recurrent initial elements, e.g. ${ }^{*} . l,{ }^{*} . m,{ }^{*} . x U$, which may be identified as their original primary components, to which additional elements were added secondarily.

In deviation from the general dominance of suffixal derivation, there is a single aberrant phenomenon, in which prefixation also plays a role. This is the Common Mongolic pattern of forming emphatic (intensive) derivatives from adjectival nouns, especially colour terms, by prepositing to the stem its partially reduplicated initial syllable followed by the consonant.$b$ according to the formula (C)V.b\&(C)V-, e.g. *xulaxan 'red' : *xu.b\&xulaxan 'reddish, quite red'. The reduplicated syllables may in such cases be analysed as independent emphatic particles, but in some modern languages they have yielded fully lexicalized structures, as in Bonan shera 'yellow' (<*sira) : shew.rexang 'quite yellow' (<*si.b+ sira.kan).

A different type of reduplication is involved in the formation of the generic plural ('and other things like that'). Already in Proto-Mongolic, the generic plural seems to have been formed by pairing the nominal stem with an echo word, which was either a rhyme beginning with $* m$ or an alternate containing $* a$ in the initial syllable, e.g. *noka(y)i \& moka( y)i 'dogs and the like', *mori \& mari 'horses and the like'. In spite of its marginal function the generic plural, with some variations in the actual patterns, is surprisingly widely attested throughout the Mongolic family.

## NOMINAL NUMBER

The morphological categories characteristic of the nominal declension in ProtoMongolic were number, case, and reflexive possession. Unlike case and reflexive possession, however, number was not a regular inflexional category, but rather a derivational feature involving a considerable degree of facultativeness and irregular lexicalized variation. This need not always have been so, for there are indications that number marking had undergone a secondary diversification in Pre-Proto-Mongolic. This diversification has continued in some Modern Mongolic languages, while in others a strictly limited set of inflexional number suffixes has been established. The marked number in Mongolic has always been the plural (collective), but in some stem types the plural markers replace elements that may originally have functioned as singular (singulative) suffixes.

The plural in Proto-Mongolic was marked by two basic suffixes, *.s and *.d, which were in complementary distribution. The suffix *.s was added to vowel stems, e.g. *ere 'man' : pl. *ere.s, while the suffix *.d, preceded by the connective vowel *U( $>$ *UU), was added to consonant stems, e.g. *nom 'book' : pl. *nom/u.d. However, most stems ending in the consonants $*_{n} *_{l} *_{r}$ lost the final segment before the suffix $* . d$, with no connective vowel involved, e.g. *kan 'prince' : pl. *ka.d, suggesting that these final consonants may originally have been suffixes. This analysis is particularly likely in the case of the stems ending in the unstable $* / n$, which regularly formed their plural by the suffix *.d, e.g. *mori/n 'horse' : pl. *mori.d. The same is true of polysyllabic stems ending in the derivative complex *.sU/n, e.g. *nugu.su/n 'duck' : pl. *nugu.d.

A third plural suffix, with a more restricted distribution, was ${ }^{*} . n$, which regularly replaced the stem-final derivative element *. (y) $i$ (possibly $<* . x i$ ) in several complex suffixes, e.g. poss. ${ }^{*} . t A .(y) i:$ pl. ${ }^{*} . t A . n$, part. fut. ${ }^{*}-k U .(y) i:$ pl. *-kU.n. This suffix was also used with the actor noun marker part. ag. *-g.ci: pl. *-g.ci.n. Occasional traces of *.n are still preserved in the Modern Mongolic languages, but generally it has lost its productivity in favour of the other plural suffixes. In Common Mongolic, regular nouns ending in *. $(y) i>{ }^{*} . i$ form their plural by the suffix *.s, e.g. *noka.i 'dog' : pl. *noka.s, but evidence from Middle Mongol and Preclassical Written Mongol shows that the original pattern is likely to have involved the use of *.n, i.e. *noka.i : pl. *noka.n.

Already in Proto-Mongolic, the basic plural suffixes were being complemented by a set of secondary suffixes. Some of the latter were simply semantically redundant reduplications or combinations of the basic suffixes (double plurals), e.g. *.d/U.d $\left(>{ }^{*} . d U U d\right),{ }^{*} . s / U . d\left(>^{*} . s U U d\right)$. Others may be analysed as combinations of original stem-final segments or syllables with the plural formative */U.d, e.g. Common Mongolic *.nUUd, *.ciUd (> *.ciUl). A different type of innovation was involved in the element *.nAr, also *.nA.d or *.nar/U.d (> *.nar.UUd), which was added to nouns denoting humans or deities, e.g. *aka 'elder brother' : pl. *aka.nar, *tenggeri 'god' : pl. *tenggeri.ner. Owing to the diversification of the plural suffixes, the original rules of complementarity were lost, often allowing several different plurals to be formed of a single nominal stem.

Patterns of the type *mori/n (*mori.n) : *mori.d and *noka.(y)i : *noka.n suggest that plural formation may originally have been part of a more general system of nominal classes, in which both the singular and the plural were marked by distinct class suffixes. What the semantic basis of this possible Pre-Proto-Mongolic class system may have been, remains to be clarified, but in any case it is obvious that the distribution of the plural suffixes was not only phonologically conditioned. It is unclear what the exact function of the plural originally was. As in the Modern Mongolic languages, the basic (singular) form of nouns in Proto-Mongolic was able to function as an unmarked (unspecified) plural. The use of the actual plural suffixes seems to have been limited to cases in which plurality was not otherwise obvious from the context.

An interesting perspective into the prehistory of class marking in Mongolic is offered by the bisyllabic stems ending in ${ }^{*} U / n$ and $* d U / n$. The former typically denote liquids or liquifiable masses: *usu/n 'water', *üsü/n 'milk', *casu/n 'snow', *cisu/n 'blood', *nisu/n 'mucus', *tosu/n 'oil', while the latter denote countable sets of identical objects: *modu/n 'tree/s', *nidü/n 'eye/s', *sidü/n 'tooth/teeth', *sodu/n 'quill feather/s', *xodu/n 'star/s', *xödü/n 'feather/s'. Simple internal reconstruction suggests that all of these stems were originally composed of a monosyllabic root (CV), to which a class suffix (*.d or *.s) was added, followed by the connective vowel $* U$ and the suffixally used unstable */n. This system of classes was obscured already in Pre-Proto-Mongolic, but it is perhaps relevant to note that the two class markers are identical with the two basic plural suffixes (*.d and *.s) still used in Proto-Mongolic.

## NOMINAL CASE

The category of case in Proto-Mongolic is normally considered to have comprised six suffixally marked cases: genitive, accusative, dative, ablative, instrumental, and comitative. At the Common Mongolic level there are also other case-like forms. The unmarked basic stem may be regarded as a nominative. The case endings were identical for all nouns except for slight phonologically conditioned variation depending on the stem type. If we take vowel stems $(\mathrm{V})$ as the basis, some case endings, though not all, had separate variants used with consonant stems (C) or, more specifically, with nasal stems ( N ) or obstruent stems (O). The case endings were also affected by vowel harmony (Table 1.3).

Just how the actual shapes of the case endings are to be reconstructed depends on what level of reconstruction is intended. For some details, both Written Mongol and Middle Mongol yield information that is not readily recoverable from the synchronic data of the Modern Mongolic languages. Case endings are, in fact, a good example of a morphological set that should be viewed at three different levels of reconstruction: Common Mongolic, Proto-Mongolic, and Pre-Proto-Mongolic. At the Pre-Proto-Mongolic

TABLE 1.3 PROTO-MONGOLIC CASE MARKERS

|  | V | C | N | O |
| :--- | :--- | :--- | :--- | :--- |
| gen. | $* / y-i-n$ | $*^{2} / U-n$ | $*_{-} U$ |  |
| acc. | $* / y-i$ | $*_{-i}$ |  | $*_{-}+t U / r$ |
| dat. | $*_{-} d U / r$ |  |  |  |
| abl. | $*_{-}-c A$ |  |  |  |
| instr. | $*_{-x A r}$ | $* / i-x A r$ |  |  |
| com. | ${ }^{-}-l U x-A$ |  |  |  |

level, the synchronic allomorphy of the Proto-Mongolic case endings can be shown to derive from original invariance, while at the Common Mongolic level several new complications had appeared.

A very simple type of allomorphy is involved in the accusative case ending, which clearly derives from Pre-Proto-Mongolic *- $i$ with the only complication that vowel stems required the presence of the connective consonant $* y$. The genitive ending, on the other hand, may be reconstructed as ${ }^{*}-n$, which after consonant stems required the connective vowel *U. After nasal stems, the actual case ending was dropped, leaving only the connective vowel to signal its former presence: */U-n>*-U. Vowel stems probably originally took the primary genitive ending *-n, but this was secondarily expanded into */y-i-n on the analogy of the consonant stems, and under the influence of the accusative ending */y-i.

As far as their functions are concerned, the genitive and the accusative may be identified as the basic grammatical cases in Mongolic, with the genitive marking the adnominal (attributive) and the accusative the adverbal (objective) type of dependence. It has to be noted that these two cases, although clearly distinct for all stem types in both ProtoMongolic and Pre-Proto-Mongolic, show a secondary tendency to merge in several Modern Mongolic languages, notably Dagur and the languages of the Gansu-Qinghai complex. From the point of synchronic description, it seems that the formally syncretized genitive-accusative, combining the functions of its two ancestors, cannot be treated as two separate cases. Rather, it is a single new case, which is perhaps best termed the connective.

The history of the dative ending is connected with several unsolved problems. The full ending *-dUr (*-DUr) is only attested in Written Mongol and Middle Mongol, while all the Modern Mongolic languages point to the shape *-dU (*-DU). This apparently means that the ending was irregularly shortened already in Proto-Mongolic. However, there are indications that the original ending may have been simply *- $d$, as still attested in a number of adverbial and postpositional words, such as *uri-d 'before'. If this is so, the complex ending *- $d U r$ is best explained as a combination of the elements ${ }^{*} d$ and ${ }^{*} r$, joined with the intermediation of the connective vowel $* U$. The role of the final element * $r$ remains unclear, though it has been compared with the adverbial suffix ${ }^{*} . x U r>* g /-U U r$, which functions as a prosecutive ending ('via') in a number of Modern Mongolic languages. The prosecutive might, however, also be connected with the directive in *-rUU ~ *-UUr, which derives from the independent postposition *игихи > * игии 'down/wards; towards' (cf. also *uru-gsi 'forward').

In addition to the dative in $*-d / U-r>{ }^{*}-d U / r$, Proto-Mongolic still had traces of another case in ${ }^{*}-A$, often also identified as a dative but perhaps better termed the locative.

The locative ending is well attested in both Written Mongol and Middle Mongol, but unlike the dative ending it had the restriction of being added only to consonant stems, e.g. *gajar 'place' : loc. *gajar-a. In Common Mongolic it is mainly preserved in adverbial and postpositional items, in which it is often preceded by the elements *. $r$ or *. $n$, as in *dexe.r-e 'on top of', *етӥ.n-e 'in front of'. Even more importantly, the locative ending occurred in combination with the dative element *- $d$-, yielding *- $d-A(*-D-A)$, which is attested as an alternative dative ending in Middle Mongol, and in a few Common Mongolic fixed phrases, e.g. *nasu/n 'age' : *nasu- $d$-a 'always'. All of this suggests that the element *- $d$ - of the dative may originally have been a coaffix, to which other elements were added, yielding the complex dative endings $*-d-A$ and ${ }^{*}-d / U-r>{ }^{*}-d U$. Due to the effect of vowel reduction, the endings *- $d-A$ and ${ }^{*}-d-U$ are largely indistinguishable in the Modern Mongolic languages.

At the Proto-Mongolic level, the functions of the locative in ${ }^{*}-A$ seem to have been identical with those of the dative in *- $d / U-r$, which explains the ultimate marginalization of the locative. Both cases are attested in a wide range of locative and dative (dativelocative) functions, expressing not only spatiality ('where', 'whither') and temporality ('when'), but also the recipient ('for whom') and possessor ('in whose possession'). Analogous functions were filled by the ablative with the difference that it indicated the source of action ('from where', 'from whom'). The original ablative ending seems to have been ${ }^{*}-c A$, still preserved in relicts in Written Mongol, as in vguvca for *exün-ce 'from this'. Already in Proto-Mongolic, however, the ablative was mainly expressed by the complex suffix $*-A-c A$, which incorporates the locative ending *- $A$-.

The dative and the ablative, together with the remains of the locative, may be identified as the local cases of Proto-Mongolic. The instrumental and the comitative, correspondingly, were the modal cases, expressing, roughly, the means of action ('by what') and the social context of action ('with whom'), respectively. The instrumental ending may be derived from the basic shape ${ }^{*}-x A r<{ }^{*}-p A r$, expanded into */i-xAr after consonant stems. The comitative ending $*-l U x-A$ incorporates the locative in $*-A$, revealing that the comitative was a secondary case formed relatively late in Pre-Proto-Mongolic on the basis of a denominal derivative suffix for possessive adjectival nouns. This development has later recurred, in that the original comitative in the Modern Mongolic languages has largely been replaced by what may be termed the possessive case, based on the Common Mongolic possessive adjectival suffix *.tA.(y)i.

In the Post-Proto-Mongolic period, none of the original case endings has developed along completely regular phonological lines. One particularly conspicuous tendency, which may be regarded as Common Mongolic, is the secondary lengthening of the suffix-initial (morpheme-boundary) vowel elements for all stem types. As a result, the modern genitive and accusative endings typically incorporate the long vowel elements ${ }^{*}-A i-$ or ${ }^{*}$-ii-, while the ablative and instrumental have ${ }^{*}-A A$-. The vowel element has in some cases become morphologically distinctive, cf. e.g. *xaan 'emperor' : gen. *xaan-ai vs. acc. *xaan-ii. Another irregular feature is the development ${ }^{*}-c A>{ }^{*}$-sA in the ablative ending *- $A-c A$, yielding Common Mongolic $*-A A-s A$. The declensional patterns of the stems ending in the unstable $/ n$ vary considerably in the modern languages.

As the history of the ablative ending *- $A-c A$ shows, Proto-Mongolic had a tendency to accumulate certain case suffixes to sequences in a pattern that has been termed double declension. Apart from the occasional combination of two local case endings (normally dative + ablative), it is particularly common in several Modern Mongolic languages to form a secondary case paradigm on the basis of the genitive (especially genitive + dative or ablative). Although the actual forms cannot necessarily be derived from

Proto-Mongolic, the tendency of double declension itself may well be characterized as at least Common Mongolic.

There is, incidentally, one type of double declension that is definitely both Common Mongolic and Proto-Mongolic. This involves the use of the suffix *-ki (or *-ki/n) after the locative, dative and genitive endings to form new nominatives, which can, in principle, be further inflected in different case forms. The dative ending used in this connection is always *-dA-(*-DA-), e.g. *ger 'house' : *ger-te-ki '(the one) located in the house' : dat. *ger-te-ki-dü/r. The suffix *-ki is traditionally treated as a derivational feature, but it differs from all other derivative suffixes in that it is normally added to an inflected form. Unlike most actual derivative suffixes, it is also fully productive, and must have been so in Proto-Mongolic already. It is therefore probably best analysed as a special kind of nominative case ending, used in double declension to nominativize other case forms. The underlying structural motivation is obvious: the nominative is unmarked in its normal use, but when built upon other case forms, it is a marked feature and requires an ending, which is *-ki.

Additional information on the history of the case system is offered by the reflexive (reflexive-possessive) declension, in which the case endings are followed by the reflexive marker ${ }^{*}-x A / n<{ }^{*}-p A / n$, after consonants $* / i-x A / n$. The adding of the reflexive marker seems originally to have been fairly mechanical, though secondary irregularities are observed in some modern languages especially in the genitive and accusative. Perhaps most importantly, the dative ending used in the reflexive declension has always been *- $d A\left({ }^{*}-D A\right)$, yielding the complex *-dA-xA/n (*-DA-xA/n). The reflexive marker could also follow the bare stem, yielding an unmarked form functionally equivalent to the accusative.

## NUMERALS

In view of its relatively shallow dating, it is not surprising that Proto-Mongolic had a fully developed set of native numerals, corresponding to a decimal system of counting. It is, indeed, perhaps more surprising that some of the peripheral Mongolic languages, notably (Minhe) Mangghuer and Moghol, have replaced the original numeral set, or large sections of it, by recent borrowings and other innovations. Although this is mainly indicative of the exceptionally strong areal reorientation of the languages concerned, the possibility of similar replacements in Pre-Proto-Mongolic should not be overlooked. As it is, the Mongolic numerals are a promising object for internal reconstruction.

The Proto-Mongolic numerals of the first decade may be reconstructed as: 1 * nike/n $>$ *nige/n (> Common Mongolic *nege/n), 2 *koxar ~ *koyar, 3 *gurba/n, 4 *dörbe/n, 5 *tabu/n, 6 *jirguxa/n, 7 * doluxa/n, 8 *na(y)ima/n, 9 *yersü/n (> Common Mongolic *yesü/n), 10 *xarba/n. The other decades were expressed by separate correlative derivatives: 20 *kori/n, 30 *guci/n, 40 *döci/n, 50 *tabi/n, 60 *jira/n, 70 *dala/n, 80 *naya/n, $90 *$ yere/n. There were also words for the lower powers of ten: $100 *$ jaxu/n, 1,000 *mingga/n, 10,000 *tüme/n (generically also 'myriad').

An examination of the numeral material immediately reveals some diachronically relevant regularities and irregularities. Most importantly, it may be observed that all numerals, with a single exception, belong to the same stem type, ending in the unstable */n. The exception is 2 *koxar $\sim^{*} k o y a r$, which, because of its aberrant shape, is likely to be a secondary innovation. In fact, it is commonly assumed that the original numeral for 'two' was *jiri/n, still used in Middle Mongol for counting female beings. The primary

