# KHALKHA 

Jan-Olof Svantesson

Khalkha, or Khalkha Mongol (xalx mongol), often misleadingly identified simply as 'Modern Mongolian', is the official language of the Republic of Mongolia, used both orally and in writing in all kinds of communication, in everyday life, in administration, in books and newspapers, as well as at all levels of education. The number of Khalkha speakers today is close to 2 million, though the rest of the 2.3 million inhabitants of the Republic of Mongolia (including Buryat and Oirat speakers) are also rapidly adopting Khalkha as either the second or the first language.

Taxonomically, Khalkha belongs to the larger context of the Mongol language, and in view of its oral intelligibility to speakers of other Mongol dialects it can hardly be counted as a separate language in the linguistic sense. Khalkha is, however, separated from the rest of the Mongol dialects by two important properties: its political status as a state language, and its separate Cyrillic literary norm, which replaced Written Mongol as the official written language of Mongolia in the 1940s. Recently, there have been attempts to reintroduce the Written Mongol language, but for the time being the 'Old Script' is used only marginally.

Khalkha itself is also divided into (sub)dialects, of which that of Ulan Bator (Ulaanbaatar) occupies a position of historical and political prestige. The variant described in this chapter is the standard language, which is close to, but not identical with, the modern Ulan Bator dialect. The standard language, which was created in parallel with the written norm, had from the beginning a supradialectal or panchronic orientation, especially as far as the orthography is concerned.

## DATA AND SOURCES

Due to its political status, Khalkha is the most extensively documented and investigated Modern Mongolic idiom. Its documentation started with the monographs of G. J. Ramstedt on Khalkha phonetics (1902) and conjugation (1903). The first systematic grammar was published in Russian by Nicholas Poppe (1931), later expanded into a German version (1951), which may still be considered a standard work on Khalkha. Poppe (1970) is a more strictly structuralist descriptive grammar.

Other basic grammars and grammatical sketches include those by John C. Street (1963), Udo Posch (1964), G. D. Sanzheev (1973), Marie-Lise Beffa and Roberte Hamayon (1975), and N. S. Yaxontova (1997). An overall description of Khalkha phonology is given by Don Graham Stuart and Matthew Haltod (1957), while the syntax is described by T. A. Bertagaev (1964) and Robert I. Binnick (1979a).

With the progress of the work, the phonological research on Khalkha has come to focus on a few central issues, notably the vowel system, as discussed by Chingeltei and Shinetge (1959), Shirô Hattori (1982), Annie Rialland and Redouane Djamouri (1984), and Jan-Olof Svantesson $(1985)$. Svantesson $(1994,1995)$ has also worked on questions
pertaining to syllable structure. On the syntactic side, an important topic has been formed by the temporal-aspectual system, as discussed by Binnick (1979b, 1990, 1991) and Svantesson (1991). Of the large number of other contributions on a variety of grammatical details, the work by Masanori Mizuno (1992) on accusative subjects may be mentioned.

Lexicologically, Khalkha is recorded in a wide selection of bilingual dictionaries, including the Khalkha-Russian dictionary by A. Luwsandendew (1957) and the Khalkha-English dictionaries by Gombojab Hangin et al. (1986) and Charles R. Bawden (1997). The largest bilingual corpus is contained in the new Khalkha-Russian dictionary, published under the editorship of A. Luwsandendew and Ts. Tsedendamba (2001-2002). The standard monolingual dictionary is that by Ya. Tsewel (1966), reverse-indexed by Hans-Peter Vietze and Ludwig Zenker (1976).

In the preparation of the present chapter, the author has benefited from the kind remarks of Anna Tsendina and Arthur Holmer, both of whom have read the original manuscript.

## SEGMENTAL PHONEMES

Khalkha segmental structure may be approached from three points of view: phonetic, phonemic, and graphemic. Below, the Khalkha data will mainly be quoted in a graphemic notation (in boldface), which corresponds to the Romanized image of the Cyrillic orthography. In the discussion of the sound system and morphophonology, phonemic representations (in italics) and/or phonetic realizations (in square brackets) will also be presented, e.g. baatar baatr [pa:'tər] 'hero'. For some details, the phonemic representations may be understood as underlying (deep-level) forms.

The Khalkha vowel system comprises seven basic units, which may be written phonemically as a е і о ӧ и ӥ (Table 7.1). Diachronically, these units stand in a more or less one-to-one correspondence to the Proto-Mongolic vowels $*_{a} *_{e} *_{i} *_{o} *_{\ddot{o}} *_{u}{ }^{*} \ddot{u}$. Phonetically, however, the system has undergone rotation, the basic effect of which is the pharyngealization of the original rounded back vowels $*_{o} * u$ and the centralization of the original rounded front vowels $* \ddot{\partial} * \ddot{u}$. The pharyngealized vowels are also realized as lower than their non-pharyngealized counterparts.

The rough phonetic values of the basic vowels may, consequently, be described as [a e i $\supset$ o $u \mathrm{u}$ ], with the additional remark that the qualities [ $\mathrm{v} u$ ] are accompanied by pharyngealization. The low unrounded back vowel [a] alternates with the velar quality [a], which might perhaps also be described as pharyngealized. On the other hand, all vowel qualities can be slightly fronted in a palatal environment. The graphemic representations of the vowels are aeiöu ü. In the Cyrillic orthography, the vowels aeou also have iotated counterparts, which may be Romanized as ya ye yo yu. The iotated counterparts of $\ddot{\boldsymbol{o}} \mathbf{u}$ are orthographically replaced by ye yu, but they will be Romanized here as yö yü.

Each of the seven vowels occurs both short (single) and long (double) in the initial syllable, except that there is no short $e$ in colloquial Ulan Bator Khalkha in this position.

TABLE 7.1 KHALKHA VOWELS

| $u$ | $\ddot{u}$ | $i$ |
| :--- | :--- | :--- |
| $o$ | $\ddot{o}$ | $e$ |
|  | $a$ |  |

Short $\mathbf{e}$ and $\mathbf{i}$ are distinguished in writing, but they have merged to [i] in the spoken language, so that, e.g. ix [ix] 'big' and ex [ix] 'mother' have become homophonous. There is no substantial qualitative difference between long and short vowels, except that long öö is a mid-high back vowel [ $\mathrm{o}:]$, while short $\ddot{O}$ tends to be more fronted and raised, close to the quality of $[\mathrm{u}]$. Dialectally, this has resulted in the merger of short $\ddot{o}$ and $\ddot{u}$ (as in Buryat and Khamnigan Mongol).

Examples of qualitative and quantitative vowel contrasts: bal [pab] 'honey' vs. baal[pa:3] 'to harrow'; il [ik] 'clear' vs. iil- [i:3] 'to flee' vs. eel [e:3] 'blessing'; bol- [pob] 'to become' vs. bool [po:3] 'slave'; öl [ob] 'grey' vs. ööl- [o: 3$]$ 'to trim'; ul [uk] 'sole' vs. uul [u:b] 'mountain'; ül- [ub] 'to remain' vs. ü̈̈l [u:b] 'cloud'.

There are also four diphthongs (diphthongoid sequences) ending in $i$. The first component of the diphthongs is either $\ddot{u}$, as in $\ddot{u} i l$ [uilz] 'deed', or one of the original back vowels a o $u$, as in ail [aik] 'family', uil- [vil3] 'to cry', oil- [vik] 'to understand'. Orthographically, the diphthongs are written with the Cyrillic letter for a non-syllabic ('short') $i$, Romanized as $\mathbf{i}$. This convention is also used to write the long vowel $i i$ (ii). An additional historical and orthographical diphthong is *ei (ei), which, however, has phonemically merged with the long vowel ee.

The Khalkha consonant system (Table 7.2) is considerably larger than that of ProtoMongolic, the main reason being the presence of an almost complete palatalization correlation. Apart from the phenomenon of palatal breaking, distinctive palatalized consonants have arisen in Khalkha due to the reduction and deletion of $*_{i}$ in non-initial syllables, as in amy 'life' < *ami/n vs. am 'mouth' < *ama/n. There are 14 pairs of unpalatalized vs. palatalized consonants, plus three isolated unpalatalized consonants ( $g h$ $n g l h$ ) and one inherently palatal consonant ( $y$ ). Altogether, this yields 32 consonant phonemes. The palatalized consonants are, however, distinctive only in words with an original velar vocalism.

By the manner of articulation, the consonants represent the following functional types: the strong stops $p$ py $t t y$, the strong affricates $t s c$, the weak stops $b$ by $d d y g g y$ $g h$, the weak affricates $d z j$, the fricatives $\operatorname{sh} x x y$, the nasals $m$ my $n n y n g$, the laterals $l l y l h$, the vibrants $r r y$, and the glides $w$ wy $y$. By the place of articulation, the unpalatalized consonants may be divided into the labials $p b m w$, the dentals $t d t s d z s n l h r$, the velars $g x n g$, and the postvelar (uvular) $g h$. The phonetic realization of the palatalized consonants varies depending on their primary place of articulation. In the labials py by my wy palatalization is realized as an actual secondary articulation (palatalized

TABLE 7.2 KHALKHA CONSONANTS

| $p$ | py | $t$ | ty |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $b$ | by | $d$ | $d y$ | gy | $g$ | $g h$ |
|  |  | $t s$ | c |  |  |  |
|  |  | $d z$ | j |  |  |  |
|  |  | $s$ | sh | $x y$ | $x$ |  |
| $m$ | my |  | ny |  | $n g$ |  |
|  |  | lh |  |  |  |  |
|  |  | I | ly |  |  |  |
|  |  | $r$ | ry |  |  |  |
| $w$ | wy |  |  | $y$ |  |  |

labials). In the dental series, however, the palatalized segments $t y d y c j$ sh ny ly ry may be characterized as alveopalatals, while the palatalized velars $g y x y$ (as well as the inherently palatal $y$ ) are realized simply as palatals.

The strong stops are probably produced with tensed vocal cords; they give a tense voice quality to the surrounding vowels, both the following and the preceding one, resulting in some pre- and postaspiration. In the phonetic transcription, the strong stops and affricates are probably best written as postaspirated $\left[p^{h} p^{\text {jh }} t^{h} t^{\text {jh }} t s^{h} t \int^{h}\right]$ in initial position, and as preaspirated [ ${ }^{h} p{ }^{h} p^{j}{ }^{h} t{ }^{h} \mathrm{t}^{j}{ }^{\mathrm{h}}$ ts ${ }^{\mathrm{h}} \mathrm{t} \mathrm{f}$ ] in medial and final position. Other phonetic correlates are involved, however, and the aspiration is not as long and perceptually salient as in some other languages (like Chinese).

The weak stops and affricates are basically plain voiceless unaspirated sounds in all positions. In Modern Khalkha, however, this is fully true only of the weak labials and dentals [ $\left.p p^{j} t t^{j} t s t f\right]$, while the weak velars seem to be functionally voiced, though they can be phonetically voiceless [k k $\left.\mathrm{k}^{\mathrm{j}} \mathrm{q}\right]$ word-finally and before a voiceless consonant. In other positions, they are phonetically voiced [ $\left.\mathrm{g} \mathrm{g}^{\mathrm{j}} \mathrm{G}\right]$. Additionally, especially in the case of $g h$, the weak velars can have fricative realizations.

A peculiarity of Khalkha with regard to the other dialects of the Mongol language is that the laterals $l l y$ are pronounced as lateral fricatives (fricolaterals) with the values [ 5 $\left.\xi^{j}\right]$. Especially in word-final position they tend to become voiceless and may even be preceded by a slight closure. As a result, $l$ comes phonetically very close to (and can at least potentially merge with) the third lateral $l h$, which is basically a voiceless lateral fricative, though it might also be described as a lateral with simultaneous velar friction [1x]. The segment $l h$ is, however, rare and occurs only in Tibetan loanwords, e.g. lhaghw [lxagəw] 'Wednesday'.

The orthographical correlates of the basic consonants are here Romanized by the letters (and digraphs) $\mathbf{p} \mathbf{b} \mathbf{m} \mathbf{w}$ for the labials, $\mathbf{t} \mathbf{d} \mathbf{t s} \mathbf{z s} \mathbf{n l \mathbf { l }} \mathbf{r}$ for the dentals, and $\mathbf{g} \mathbf{x}$ for the velars. In the Cyrillic orthography, there are no special letters for the segments $g h \mathrm{ng}$. The palatal glide is expressed by using the iotated vowel letters ya ye yo yu, which also indicate the palatalization of a preceding consonant. Palatalization before long vowels is, however, indicated by the sequences ia io iu, as in xiam xyaam 'sausage'. Syllable-final palatalization is expressed by the Cyrillic palatalization letter ('soft sign'), which may also be Romanized as $\mathbf{y}$. An actual postconsonantal palatal glide segment $y$ is orthographically signalled by using the corresponding depalatalization letter ('hard sign'); in such cases, the glide may be Romanized as $\ddot{\mathbf{y}}$, e.g. awÿaas 'talent'.

In deviation from the general pattern, the palatalized affricates and sibilant $c j s h$ are written by special letters, which may be Romanized as $\mathbf{c} \mathbf{j} \mathbf{~ s h}$ (for what are more commonly Romanized as $\mathbf{c h} \mathbf{z h} \mathbf{s h}$ ). The Cyrillic alphabet has additionally several letters, notably $\mathbf{f} \mathbf{k}$ shh, which are mainly used in Russian graphic borrowings. Of these, the letter $\mathbf{k}$ can correspond to a strong (aspirated) velar stop $\left[\mathrm{k}^{\mathrm{h}}\right]$, which probably represents two actual marginal phonemes ( $k$ ky) for some speakers.

Examples of some crucial consonantal contrasts: ad [at] 'demon' vs. at [ $\mathrm{a}^{\mathrm{h}} \mathrm{t}$ ] 'castrated camel'; dal [tah] 'seventy' vs. tal [thab] 'steppe'; dzam [tsam] 'road' vs. tsam [ts' ${ }^{\text {ham }}$ ] 'mask dance'; bar [par] 'tiger' vs. byar [ $\left.\mathrm{p}^{\mathrm{j}} \mathrm{ar}\right]$ 'strength'; jad [ t at] 'spear' vs. cad- $\left[\mathrm{t}{ }^{\mathrm{h}}\right.$ at] 'to be able'; sar [sar] 'moon' vs. shar [Jar] 'yellow'; xar [xar] 'black' vs. xyar [x ${ }^{\mathrm{j}} \mathrm{ar}$ ] 'ridge'; nam [nam] 'party' vs. nyam [n'am] 'Sunday'; xor [xor] 'poison' vs. xory [xor'] 'twenty'.

A special orthographical convention, corresponding to the diachronic situation but not to the synchronic segmental structure, is used to indicate syllable-final $n g h$ in distinction from $n g g$. Thus, the sequences na no ne and ga go indicate $n(<* n A)$ and $g h$ $(<* g A)$, respectively, while the letters $\mathbf{n} \mathbf{g}$ (without a vowel) indicate $n g\left(<*_{n} \& n g\right)$ and
$g(<* g)$, e.g. xan xang [xay] 'king' vs. xana xan [xan] 'wall', bag bag [pag] 'team' vs. baga bagh [pag] 'small'. In basically the same way, the iotated letters ya ye yo indicate the actual glide segment $y$ in distinction from the diphthongs ending in $i$, e.g. tsai tsai [ts' ${ }^{\text {ai] }}$ 'tea' vs. saya say [saj] 'recently'; sain saing [saiy] 'good' vs. bayan bayng [рајəŋ] 'rich'.

The contrast between $n$ and $n g$ is synchronically only possible in syllable-final position, while the contrast between $g$ and $g h$ is also attested in medial syllable-initial (prevocalic) position. In the latter position, no orthographical distinction is made (except before $i$ ), e.g. zurag dzurg 'picture' : refl. zurgaa dzurg-a (<*jirug-axa/n) vs. zurgaa dzurgha 'six' ( $<*$ jirguxa/n). Altogether, the contrast between $g$ and $g h$ (both diachronically $<{ }^{*} g$ ) is rather marginal and may even be absent dialectally or idiolectally. The same is true of the contrast between $b(b y)$ and $w(w y)$ (both diachronically $<* b$ ), which is possible only after $l$, e.g. alba alb 'duty' $(<$ *alba/n) vs. term. alaw alw 'to kill' $(<* a l a-b a)$. A distinctive $w$ is also attested in borrowings, e.g. wan wang 'king' (from Chinese).

## WORD STRUCTURE

The maximal syllable structure is CVVCCC, i.e., the vowel kernel may be preceded by at most one consonant and followed by a cluster of up to three consonants. The vowel can be short, long or a diphthong. In non-initial syllables, it can also be a non-phonemic schwa vowel. Onsetless syllables occur only word-initially. Whether a consonant combination can form a syllable coda or not depends on the phonetic properties of the consonants. Permitted types of coda include: voiced + voiceless consonant, e.g. daws [taws] 'salt', alt [ab ${ }^{\text {h }} \mathrm{t}$ ] 'gold', bügd [pugt] 'all'; nasal + stop or affricate, e.g. xünd [xunt] 'heavy', möngg [mong] 'silver', myanggh [m'ayg] 'thousand'; fricative + stop or affricate, e.g. tsast $\left[\mathrm{ts}^{\mathrm{h}} \mathrm{as}^{\mathrm{h}} \mathrm{t}\right.$ ] 'snowy'. Three-consonant codas consist of a voiced consonant followed by a fricative + stop or affricate, e.g. ilst $\left[\mathrm{i} 3 \mathrm{~s}^{\mathrm{h}} \mathrm{t}\right]$ 'sandy'.

A considerable proportion of root words are monosyllabic. There is a requirement that a monosyllabic word must have a heavy syllable rhyme, i.e., it either has a coda consonant, as in xüng [xuy] 'person', a long vowel or a diphthong, as in dü̈̈ [tuu] 'younger
 of the type (C)V (with a short vowel) do not occur. A few monosyllabic function words are spelled (and transliterated) with a short vowel only, e.g. bi 'I', ta 'you' [honorific], but they are pronounced (and may be phonemized) with a long vowel in citation form, i.e. $b i i$ [pi:], taa [ $\mathrm{t}^{\mathrm{h}} \mathrm{a}$ ]].

There are also many bisyllabic and even polysyllabic roots. Moreover, because of the agglutinative morphology, derived or inflected words are often polysyllabic. In words with more than one syllable, stress is not contrastive. There is no agreement in the literature about the place of stress, or even if there is stress. The possible interaction of stress and intonation also remains to be investigated further. Another important issue connected with polysyllabic words involves vowel quantity in non-initial syllables. Traditional analyses of Khalkha, for instance the one implemented in the Cyrillic orthography, distinguish short and long vowels in all syllables, but there are reasons to question this interpretation.

A phonetic analysis immediately reveals that the 'short' vowels of non-initial syllables are reduced (centralized) versions of the vowel of the preceding syllable (here invariably transcribed as [ə]). In the Cyrillic orthography, these vowels are written with
the equivalents of the single vowel letters aeö, depending on the harmonic quality of the vowel of the previous syllable, e.g. xawar [xawor] 'spring', mongol [məygəł] 'Mongol'. When a reduced vowel is preceded by a palatalized (including alveopalatal) consonant, it has an [i]-like quality and is written as i, e.g. guril [Gurijb] 'flour', ajil [atfob] 'work'.

Not only the qualities, but also the places where reduced vowels occur can be predicted by rules, and for this reason they can be regarded as non-phonemic schwas, which are absent from underlying (lexical) forms (as in Kalmuck). The basic rule is that schwa vowels are inserted in order to make well-formed syllables. If the underlying form of a word ends in two consonants, a schwa is inserted if these two consonants cannot form a syllable coda, but not otherwise. For example, since the clusters $r d g d l s$ (voiced + voiceless consonant) in ard ard [art] 'people', bügd bügd [pugt] 'all', uls uls [ubs] 'state' can form a coda, no schwa is required. By contrast, the clusters mr td tr in xamr 'nose', xyatd 'Chinese', baatr 'hero' cannot form a coda at the surface, so a schwa must be inserted, yielding xamar [xamər], baatar [pa: ${ }^{\text {h }}$ trr], xyatad [ $x^{j} a^{h}$ tot].

If there are three underlying final consonants, the schwa is inserted between the first two consonants, if this is phonotactically possible, e.g. gudamj [Gutomt]] 'street' from underlying gudmj. If, on the other hand, the last two consonants would not yield a wellformed syllable coda, the schwa is inserted between them, e.g. byaslag [p ${ }^{j}$ asłəg] 'cheese' from underlying byaslg. More generally, it may be said that schwas are always inserted as far to the left as possible while maintaining a sequence of well-formed syllables, e.g. yörtönts [jor'tən'ts] 'world' from underlying yörtnts, xüüxeldei [xu:xəßte] from underlying xüüxlde.

In a few cases, the schwa insertion rule takes morphology into consideration. One conspicuous case is the futuritive participle marker $-x$, which requires a schwa if the verb stem ends in a consonant, cf. e.g. part. fut. xalax [xalzox] 'to change' vs. xalx [xabx] 'shield; Khalkha'. Since the occurrence of the schwa in this case is not phonologically predictable, it has to be treated as a potentially distinctive segment $\left({ }^{\circ}\right)$. It might also be possible to maintain that the schwa belongs to the underlying form of this and other similar grammatical markers. There seem to exist no regular lexical items with an underlying schwa.

In spite of the presence of exceptions, the orthographical short vowels of non-initial syllables may generally be treated as non-distinctive schwas, which are not present in underlying forms. In this situation, the orthographical long vowels of non-initial syllables need not be interpreted as phonologically long. Instead, they may be analysed as quantitatively unmarked and segmentally equal to the short vowels of the initial syllable (as in Kalmuck). Support for this analysis comes from phonetic data, which show that these vowels tend to be much shorter than the long vowels of the initial syllable and only slightly longer than the short vowels of the initial syllable, e.g. sanaa sana [sana] 'thought', ulaan ulang [ułan] 'red', xöömii xoomi [xo:mi] 'throat'.

The distribution of the vowel qualities in non-initial syllables is regulated by vowel harmony. The Khalkha vowels may be divided into two classes, corresponding to the original back vowels $a$ o $u$ and the original front vowels $e \ddot{o} \ddot{i}$. However, due to the effect of vowel rotation, also termed the Khalkha Vowel Shift, the original back vowels $o u$ (and to a lesser extent $a$ ) are pronounced as pharyngealized, while the original front vowels $\ddot{o} \ddot{u}$ (and to a lesser extent $e$ ) are pronounced as centralized or even fully velarized. Phonetically, it seems that pharyngealization is a marked feature, which distinguishes the vowels $o u$ (and possibly $a$ ) from $\ddot{\partial} \ddot{u}$ (and possibly $e$ ). The pharyngealized vowels are characterized by a relatively small pharynx cavity, probably due to retraction of the tongue root and tensing of the pharynx constrictor muscles.

In view of the crucial role of pharyngealization, the Khalkha vowel harmony is best identified as a pharyngeal harmony, in which the vowels are divided into pharyngealized and non-pharyngealized. The basic vowel harmony rule says that vowels from these two classes cannot co-occur in the same word. A partial exception is formed by $i$, which, when occurring in the initial syllable, can only be followed by non-pharyngealized vowels, but which, when occurring in non-initial syllables, can follow both pharyngealized and non-pharyngealized vowels. The distribution of the low vowels a e o ö in non-initial syllables is additionally regulated by labial harmony, according to which the unrounded vowels $a e$ cannot be followed in the same word by the rounded vowels $o \ddot{o}$.

Both types of vowel harmony (pharyngeal and labial) apply both in roots and in derived and inflected words. Their impact on suffix vocalism may be described in terms of four archiphonemic entities: $A$ Ai $U i$. The low vowel $A$ has four harmonic alternants ( $\llcorner$ o e $\ddot{o}$ ), the diphthong $A i$ three (ai oi e), and the high rounded vowel $U$ two ( $u \ddot{u}$ ), while the high unrounded vowel $i$ appears only in a single invariant shape (Table 7.3). Marginally, there is also the diphthong Ui, which, in principle, follows the same pattern as $U$ (with the two alternants $u i \ddot{u} i$ ). Exceptions from the rules of vowel harmony are present in a few elements that are probably best classified as clitics. These include the possessive suffixes and the negative particle =güi (also used in the privative construction).

Examples of suffixal vowel harmony: yaw- 'to go', or- 'to enter', ux- 'to understand', xeel- 'to decorate', ög- 'to give', üdz- 'to see', id- 'to eat' : conf. (the $A$ series) yaw-la [jawła], or-lo [フrł3], ux-la [uxł3a], xeel-le [xe:błe], ög-lö [ogło], üdz-le [utsłe], id-le [itłe]; caus. (the $U$ series) yaw.ul- [jawuß], or.ul- [эruß], ux.ul- [uxuł], xeel.ül[xe:łuł], ög.ül- [ogub], üdz.ül- [utsul\}], id.ül- [ituß]; part. fut. acc. (the invariant $i$ ) yaw-x-ig [jawxig], or-x-ig [गrxig], ux-x-ig [Uxxig], xeel-x-ig [xe:3xig], ög-x-ig [ogxig], üdz-x-ig [utsxig], id-x-ig [itxig]; gar 'hand', or 'bed', sum 'arrow', deel 'gown', xöl 'foot', süx 'axe', shil 'glass' : poss. (the $A i$ series) gar-tai [Gar'tai], or-toi [or ${ }^{\mathrm{h}}$ toi], sum-tai [sum ${ }^{\mathrm{h}}$ tai], deel-te [te:3 ${ }^{\mathrm{h}}$ te], xöl-te $\left[\right.$ xol $^{\mathrm{h}}$ te], süx-te [sux ${ }^{\mathrm{h}}$ te], shil-te [ $\left[\mathrm{il} \mathrm{b}^{\mathrm{h}}\right.$ te].

The Khalkha vowel harmony can, consequently, be understood as a phenomenon which spreads the features pharyngeal and rounded from the first vowel towards the right in a word. The vowel $i$ is transparent in the sense that it neither affects nor is affected by vowel harmony, which spreads through it as if it were not present. The vowels $u$ and $\ddot{u}$ take part in pharyngeal harmony, but not in labial harmony, which is blocked by them. The difference between $i$ and $u \ddot{u}(U)$ is evident from examples like caus. conf. or.ul-la 'to enter' vs. acc. refl. or-ig-o 'bed', where labial harmony is blocked by an intervening $u$ but not by $i$.

Concerning the orthography of the vowel $i$ in non-initial syllables it has to be noted that it is written as ii (congruent with the diphthongs) only when preceded by a palatalized consonant, as in mory mory 'horse' : acc. moriig mory-ig, or also by the velar (not post-velar) stop $g$, as in tsag tsag 'time' : acc. tsagiig tsag-ig. When preceded by a

TABLE 7.3 KHALKHA VOWEL COMBINATIONS

|  |  | after: $a$ | $o$ | $u$ | $e$ | $\ddot{o}$ | $\ddot{u}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $A=$ | $a$ | $o$ | $a$ | $e$ | $o ̈$ | $e$ | $e$ |
| $A i=$ | $a i$ | $o i$ | $a i$ | $e$ | $e$ | $e$ | $e$ |
| $U=$ | $u$ | $u$ | $u$ | $\ddot{u}$ | $\ddot{u}$ | $\ddot{u}$ | $\ddot{u}$ |
| $i=$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |

non-palatalized consonant, including the post-velar segment $g h$, it is written with a special letter ('yery') of the Cyrillic alphabet, which for Khalkha may be romanized as ï, as in gar gar 'hand' : acc. garïg gar-ig, baga bagh 'small' : acc. bagïg bagh-ig. This letter is never used in the initial syllable.

Although Khalkha stems are usually unchanged in the morphology, while the suffixes vary mainly with vowel harmony, there are a few other morphophonological processes, which are also connected with the vowels. For instance, the rules for schwa insertion frequently condition a phonetic alternation between a schwa and zero either within the stem, as in xamar xamr 'nose' : abl. xamraas xamr-as, or at the junction of the stem and a suffix, as in xot xot 'town' : dat. xotod xotd. The distinctive schwa of grammatical endings, as of the futuritive participle marker, can also be lost morphophonologically, though normally not orthographically, e.g. part. fut. yawax $y a w-~^{0} x$ 'to go' : instr. yawaxaar yaw-x-ar.

When a suffix beginning with a vowel is added to a stem that ends in a vowel, the connective consonants $g$ and $g h$ are added at the juncture. The velar $g$ is used after stems of the non-pharyngealized harmonic class, as in xüü хӥӥ 'boy' : instr. xüügeer xüü/g-er, while the postvelar $g h$ is used after stems of the pharyngealized harmonic class, as in sanaa sana 'thought' : instr. sanaagaar sana/gh-ar.

## WORD FORMATION

The Khalkha vocabulary is a closely woven web of interrelated words connected by derivative suffixes. Most derivative suffixes are used in either a denominal or a deverbal function, though there are a few ambivalent (or homophonous) suffixes, cf. e.g. .l(-) in mal 'cattle' : mal.la- 'to breed cattle' (denominal verb), xur- 'to meet' : xura.l 'meeting' (deverbal noun). The borderline between derivation and inflexion is transitional in some cases. The dimensions of derivation may be illustrated by the following series of deverbal derivatives (from Bawden):
sur- 'to learn' : sura.gc 'pupil' : sura.l 'enquiry’ : sur.laga 'study’ : sura.mgai 'trained' : sura.mgai.sh 'to get trained' : sur.ga.gc 'instructor' : sur.ga.lt 'teaching' : sur.ga.mj 'instruction’ : sur.ga.mji.l- 'to admonish’ : sur.ga.mj.tai 'instructive’ : sur.g.aal 'doctrine' : sur.g.uuly 'school' : sur.g.uul.tai 'trained' : sur.g.uuli.l- 'to send to school' : sur.g.uuli.l.t 'training' : sur.mag 'trained' : sur.tal 'doctrine' : sur.tal.d- 'to indoctrinate' : sur.tal.tan 'ideologist' : sur.tal.c 'propagandist'.
üz- 'to see' : üze.gc 'spectator' : üze.l 'view' : üz.leg 'examination' : üze.lt 'minded' : üze.Ite.n 'supporter' : üze.mj 'appearance' : üze.mji.t 'beautiful' : üze.mj=güi 'unsightly' : üz.wer 'show' : üz.mer 'display' : üz.mer.d- 'to foresee' : üz.mer.c 'seer' : üz.üül- 'to show' : üz.üüle.l 'demonstration' : üz.üüle.lt 'indicator' : üz.üül.ber 'performance' : üze.gde.gc 'visible’ : üze.sgelen 'beauty; exhibition’ : üze.sgelen.t 'beautiful’ : üze.sh=güi 'unsightly'.

Adjectives do not differ formally from nouns, e.g. ulaan 'red', 'redness', 'the red one'. Certain derivational patterns are nevertheless specific to adjectival nouns, e.g. baga 'small', tom 'big', bogino 'short' : moder. baga.xan 'rather small', tom.xon 'rather big', bogino.xon 'rather short' : ess. baga.d- 'be (too) small', tom.d- 'be (too) big', bogino.d'be (too) short' : transl. baga.s- 'to get smaller', tom.s- 'to get bigger', bogino.s- 'to get shorter' : caus. baga.s.ga- 'to decrease', tom.s.go- 'to enlarge', bogino.s.go- 'to shorten'.

Some derivative suffixes occur only in a small number of lexicalized examples, while others are more or less productive and have a predictable meaning. The most important
productive suffixes are those of verbal voice, including, in particular, the passives in .$g d$ - and the causatives in $. U l-, . A-, . G$ - and.$l G$ - (the choice of suffix depends mainly on the phonology of the stem), e.g. id- 'to eat' : id.üül- 'to cause to eat' : ide.gd- 'to be eaten'. It is also possible to form double causatives, e.g. gar- 'to exit' : gar.ga- 'to take out' : gar.g.uul- 'to cause to take out'. Other suffixes form cooperative and collective verbs, e.g. sur- 'to study' : coop. sura.lts- 'to study together' : coll. sur.tsgaa- 'to study [many together]'.

Compounding is another way of forming words, especially nominals, e.g. awia+züi 'phonetics', from awia 'sound' and züi '-ology'. Similar to compound words are lexicalized phrases containing two nominal or nominalized words, e.g. xar xün 'layman' (literally: 'black person'), nise-x ongots 'airplane' (literally: 'flying boat'). Often a noun in the genitive is involved, e.g. nom-ïn san 'library' (literally: 'store of books'), nusn-ï alcuur 'handkerchief' (literally: 'cloth of snotting').

## NUMBER AND CASE

Nouns can take suffixes for number, case, and possession, in that order. Plural marking is not obligatory, but is used for emphasizing that several persons or objects are involved. The plural is not marked in the presence of numerals or other quantifiers, e.g. tawan ger 'five houses'.

Plural is probably best regarded as a derivational category. There are several different plural markers, the distribution of which depends on both lexical and phonological factors. The most common plural markers include $. U d, . n U d, . c U d, . s$, and.$d$, e.g. gar.uud 'hands', ger.üüd 'houses'; mongol.cuud 'Mongols', emegtei.cüüd 'women', üg.s 'words'. The marker.$d$ usually replaces a final $n$ in the stem, e.g. zocin 'guest' : pl. zoci.d. The plural marker.$n r$ is orthographically rendered as a separate word with the invariant shape nar, e.g. düü nar 'younger brothers'.

In addition to the unmarked nominal stem (nominative), there are six suffixally marked cases: genitive, accusative, dative, ablative, instrumental, and possessive (Table 7.4). The basic series of case endings is taken by consonant stems (C), which also comprise stems ending in a diachronic short vowel (*V). Stems ending in a diachronic velar nasal ( Ng ), as well as stems ending in a diachronic long vowel ( $\mathrm{V}<* \mathrm{VV}$ ), require the connective consonant $g$ (or $g h$ ), except in the genitive for diphthong stems (Vi) and the accusative for all vowel stems. Special suffix variants are present in the genitive for diachronic nasal stems ( N ) and the dative for some diachronic obstruent stems ( O ).

TABLE 7.4 KHALKHA CASE MARKERS

|  | C | O | N | Ng | V | Vi |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| gen. | $-i n g$ |  | $-i$ | $/ g$-ing |  | $-n g$ |
| acc. | $-i g$ |  |  | $/ g$-ig | $-g$ |  |
| dat. | $-d$ | $-t$ |  |  |  |  |
| abl. | $-A s$ |  |  |  |  |  |
| instr. | $-A r$ |  |  |  |  |  |
| poss. $A s$ | $-t A i$ |  |  |  |  |  |

Additional morphophonological variation is caused by the unstable $/ n$, which appears in the genitive, dative and ablative (but not in the other cases) of certain stems.

Examples of paradigms: (C) nom 'book' : gen. nom-ïn : acc. nom-ïg : dat. nom-d : abl. nom-oos : instr. nom-oor : poss. nom-toi; (O) ger 'house' : gen. ger-iin : acc. geriig : dat. ger-t : abl. ger-ees : instr. ger-eer : poss. ger-tei; ( $N$ ) on 'year' : gen. on-ï : acc. on-ïg : dat. on-d : abl. on-oos : instr. on-oor : poss. on-toi; ( Ng ) wan 'king' : gen. wan/giin : acc. wan/g-iig : dat. wan-d : abl. wan/g-aas : instr. wan/g-aar : poss. wan-tai; (V) xüü 'boy' : gen. xüü/g-iin : acc. xüü-g : dat. xüü-d : abl. xüü/g-ees : instr. xüü/g-eer : poss. xüü-tei; (Vi) dalai 'sea' : gen. dalai-n : acc. dalai-g : dat. dalai-d : abl. dalai/g-aas : instr. dalai/g-aar : poss. dalai-tai; $(/ n)$ or 'place' : gen. or/n-ï : acc. or-ïg : dat. oro/n-d : abl. or/n-oos : instr. or-oor : poss. or-toi; shiree 'table' : gen. shiree/n-ii : acc. shiree-g : dat. shiree/n-d : abl. shiree/n-ees : instr. shiree/g-eer : poss. shiree-tei.

The nominative normally functions as a subject or a direct indefinite object, though it is also used in attributive and postpositional constructions. A direct definite object often stands in the accusative, while an indirect object is in the dative. The subject of a subordinate clause can also be in the accusative, while the subject of a participial construction can be in the genitive. Otherwise, the genitive is used to mark attributive nouns, including possessor nouns. Location at or direction to is expressed by the dative, while direction from is expressed by the ablative. The instrumental basically expresses instrument, but it is also used to indicate direction through or along (prosecutive). The possessive (comitative) expresses both possession ('equipped with') and joint action ('together with').

Due to the absence of morphological comparative forms, adjectival nouns are compared by placing the standard of comparison in the ablative case, e.g. mory mur-aas tom 'a horse is bigger than a cat'. A construction with gen. xamg-iin 'of all' corresponds to the superlative, e.g. xamg-iin tom mory 'the biggest horse (of all)'.

## NUMERALS

The Khalkha numerals are inflected like nouns. The basic numerals are, for the digits: 1 neg : negen, 2 xoyor, 3 guraw : gurwan, 4 döröw : dörwön, 5 taw : tawan, 6 zurgaa : zurgaan, 7 doloo : doloon, 8 naim : naiman, 9 yös : yösön; for the tens: 10 araw : arwan, 20 xory : xorin, 30 guc : gucin, 40 döc : döcin, 50 tawy : tawin, 60 jar : jaran, 70 dal : dalan, 80 naya : nayan, 90 yer : yeren; and for the powers of ten: 100 zuu : zuun, 1.000 myanga : myangan, 10,000 tüm : tümen. Intermediate numerals are formed as follows: 12 arwan xoyor, 35 gucin taw, 4,653 dörwön myanga zurgaan zuun tawin guraw.

All the numerals, with the exception of 2 xoyor, end in the unstable $/ n$. The nasal stem appears in the declension, but it is also used attributively, except in the case of 1 neg and 1,000 myangga, e.g. neg tögrög 'one tugrik', gurwan tögrög 'three tugriks', myangga tögrög 'one thousand tugriks'. In counting, the plain stems are used.

Ordinal numbers are formed with the suffix .dugaar or .dügeer, added to the plain stem, e.g. neg.dügeer 'first', döröw.dügeer 'fourth', taw.dugaar 'fifth'. The ordinals 'sixth' and 'seventh' are formed from a truncated stem: zurga.dugaar and dol.dugaar. The orthographical shape of the ordinal suffix is exceptional and apparently anachronistic, in that it suggests the presence of a non-reduced short (single) vowel ( $u$ or $\ddot{u}$ ) in a non-initial syllable. (The phonological status of the ordinal suffix in the spoken language remains to be investigated.)

Khalkha also retains regular reflexes of most of the other Common Mongolic numeral derivatives, including the collectives in. $U l$, e.g. taw.uul 'five together', the multiplicatives

TABLE 7.5 KHALKHA PERSONAL PRONOUNS

|  |  | 1p. |  |  |
| :--- | :--- | :--- | :--- | :--- |
| sg. | nom. <br> gen. <br> acc. <br> obl. | bi <br> minii | namaig <br> nad- <br> (excl.) | ci <br> cinii <br> camaig <br> cam- |
| pl. | nom. <br> gen. <br> obl. | manai <br> man- | bid <br> bidnii | ta <br> tanai <br> tan- |
|  |  |  |  |  |

in .nt, e.g. gurwa.nt 'three times', and the distributives and approximatives in . $A d$, e.g. gurw.aad 'three each', myang.aad 'about a thousand'. The collectives zurg.uul 'six together' and dol.uul 'seven together' are based on truncated stems, while the distributives nejeed 'one each' and xoshood 'two each' are synchronically suppletive. The role of multiplicatives can also be filled by the plain numeral stems, e.g. neg 'once', guraw 'three times'.

## PRONOUNS

The Khalkha personal pronouns (Table 7.5) follow in most details the Common Mongolic pattern. The singular pronouns have separate stems for the nominative (bi : ci), genitive (min- : cin-), and accusative (nam- : cam-). In the second person the accusative stem is also used in the other cases, while in the first person a special oblique stem (nad-) is present. In the first person plural, the distinction between an exclusive and an inclusive stem (man- : bidn-) is retained only formally, but not functionally, in the oblique paradigm. The second person plural pronoun (ta) mainly functions as an honorific singular, while actual plural reference is expressed by the suffixally marked plural form ta nar, phonologically taa.nr.

There are no personal pronouns for the third person; instead, the demonstratives ene 'this' and ter 'that' are used, often in combination with a head noun, as in ter xün 'that person'. The demonstratives have two oblique stems, üü/n- vs. tüü/n- (literary) and enen- vs. tern- (colloquial). In the instrumental function, the special form terüügeer 'that way' is also used. The plurals are ed and ted, but extended forms (double plurals) like ednüüd vs. tednüüd or ted nar are often used. Related demonstrative derivatives are: end 'here' vs. tend 'there', iim 'like this' vs. tiim 'like that', edii 'this much' vs. tedii 'that much', enge- 'to do like this' vs. tege- 'to do like that', odoo 'now'.

Other pronominal words include the interrogatives xen 'who' : xezee 'when' : xedii 'how much' : xeden 'how many', yüü : yüün- 'what', aly : alyn- ‘which', yamar 'what kind of' : yaa- 'to do what', xaa 'where' : dir. xaash 'where to'. The interrogatives are also used as indefinites, normally combined with the clitic =c, e.g. $\mathbf{x e n}=\mathbf{c}$ 'whoever'. The reflexive pronoun is ö̈rr- : refl. öör-öö '(by) oneself' : gen. öör-iin 'one's own'.

## POSSESSIVE SUFFIXES

The genitives of the personal pronouns are used as possessive pronouns, which precede the head noun, e.g. minii nöxör 'my husband'. In slightly altered shapes, they function

TABLE 7.6 KHALKHA POSSESSIVE SUFFIXES

|  | sg. | pl. |
| :--- | :--- | :--- |
| 1 p. | miny | maany |
| 2 p. | ciny | ny |
| 3 p. |  | tany |

as possessive suffixes, e.g. nöxör miny 'my husband'. The system is complemented by the Common Mongolic third person possessive suffix (Table 7.6).

The possessive suffixes are probably best analysed as clitics, since they (as is evident from the first and second person plural) do not follow vowel harmony. Orthographically, they are written as separate words. The orthographical representation does not, however, reveal the full picture of the phonological behaviour of the possessive suffixes. The third person suffix, for instance, is normally realized as $=i n$ after a stem-final consonant, e.g. ger 'house' : px 3p. ger ny ger $=$ in.

The reflexive suffix $-A$, in the genitive $-x-A-$, is added after the plural marker and the case suffixes. It refers back to the subject of the clause (regardless of person), e.g. dat. refl. ger-t-ee 'to (one's) own house', pl. poss. refl. mongol.cuud-tai/g-aa 'with (one's) own Mongols'.

## VERBAL FORMS

The Khalkha verbal forms can be divided into three morphological and functional classes: finite forms, participles, and converbs. Finite forms can be further divided into imperatives and indicatives. The division between finite and non-finite forms is, however, not entirely clear-cut. The finite forms function as main (final) verbs of main clauses, and do not occur in subordinate clauses, except in direct speech. Most participles can also function as finite verbs, occupying the position of the final verb of a main clause. When participles are used as nouns or as the final verb of a subordinate clause, they can take case and reflexive suffixes. They can also modify nouns, forming relative clauses. The converbs modify other verbs and are also used in subordinate clauses.

The finite forms used in Khalkha include, in addition to the basic unmarked imperative, the precative, voluntative, prescriptive, permissive, desiderative, dubitative, and potential of the imperative sphere, as well as the durative, terminative, confirmative, and resultative of the indicative sphere (Table 7.7). Some of the finite markers have separate allomorphs for regular consonant stems (C), lexicalized obstruent stems (O), and vowel stems (V). The markers containing vowels have regular harmonic alternants, except the resultative marker, which is harmonically invariant. The voluntative marker, though phonologically $-i$ (after consonant stems) or $-y$ (after vowel stems), is orthographically rendered in its historical shape -ya (with the harmonic alternants -ye -yo).

There are no predicative personal endings, though the precative marker contains the suffixed trace of the second person singular pronoun $*=c i>-c$ (the corresponding plural form in ${ }^{*}=t A>-t$ is no longer actively used in Khalkha). Most of the other imperative forms also have a fixed personal reference, with the voluntative referring to the first person (mainly plural), the prescriptive to the second person (singular and plural), and the permissive to the third person (singular and plural). The negation of the imperative forms takes place by prepositing the negative particle bitgii, e.g. bitgii gar 'don't go out!'.

TABLE 7.7 KHALKHA FINITE VERBAL MARKERS

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | C | O | V | person |
| prec. | $-A-c$ |  | $/ g-A-c$ | sg. 2p. |
| vol. | $-i$ |  | $/ g-A r A i$ | pl. 1 p. |
| prescr. | $-A r A i$ |  | sg. pl. 2p. |  |
| perm. | $-g$ |  | sg. pl. 3p. |  |
| des. | $-A s A i$ |  |  |  |
| dub. | $-U d z A i$ |  |  |  |
| pot. | $-m d z$ |  |  |  |
| dur. | $-n$ |  |  |  |
| term. | $-w$ |  |  |  |
| conf. | $-l A$ | $-c e$ |  |  |
| res. | $-j e$ |  |  |  |

TABLE 7.8 KHALKHA NON-FINITE VERBAL MARKERS

|  |  | C | L | O | V | neg. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| part. | fut. | $-{ }^{\circ} x$ |  |  | $-x$ | $=g \ddot{i}$ |
|  | imperf. | -A |  |  | $/ \mathrm{g}-\mathrm{A}$ | =güi |
|  | perf. | -sng |  |  |  | = güi |
|  | hab. | $-d g$ |  |  |  | = güi |
|  | ag. | $-g c$ |  |  |  |  |
| conv. | mod. | -ng |  |  |  |  |
|  | imperf. | -j |  | $-c$ |  |  |
|  | perf. | -Ad |  |  | $/ g-A d$ |  |
|  | cond. | -wl | -bl |  |  |  |
|  | conc. | $-w-c$ |  |  |  |  |
|  | term. | -tl |  |  |  |  |

The indicative forms cannot be negated as such; the corresponding negative forms are expressed by finitely used participles, combined with the negative particle =güi. The interrogative forms incorporate the particle $=U$, orthographically uu or üü, yielding dur. interr. $-n=U$ and res. interr. $-J=U$.

Examples of finite paradigms: (O) ög- ‘to give’ : imp. ög : prec. ög-ööc : vol. ög-ÿö : prescr. ög-öörei : perm. ögö-g : dub. ög-üüzei : dur. ög-nö : term. ögö-w : conf. ög-löö : res. ög-cee; (O) gar- 'to exit' : imp. gar : prec. gar-aac : vol. gar-ÿa : prescr. gar-aarai : perm. gara-g : dub. gar-uuzai : dur. gar-na : term. gara-w : conf. gar-laa : res. gar-cee; (V) inee'to laugh' : imp. inee : prec. inee/g-eec : vol. inee-ÿe : prescr. inee/g-eerei : perm. inee-g : dub. inee/g-üüzei : dur. inee-ne : term. inee-w : conf. inee-lee : res. inee-jee.

The participial and converbial systems (Table 7.8) also follow closely the Common Mongolic pattern. Thus, the participial system comprises the futuritive, imperfective, perfective, habitive, and agentive participles. The agentive participle has, however, largely lost its verbal characteristics, occurring mainly as a deverbal derivative category (actor
noun). The imperfective participle is also relatively rare in verbal use, except in the negative construction. All verbally used participles can be negated by the particle $=$ güi 'not'. Phonologically it should be noted that the futuritive participle marker always requires the presence of a (lexicalized) schwa $\left({ }^{\circ}\right)$ after consonant stems.

The converbial system basically comprises the modal, imperfective, perfective, conditional, concessive, and terminative converbs. None of the converbs can synchronically be negated, though in older language, the complex conv. mod. neg. -ng=güi is attested as the negative counterpart of the modal and imperfective converbs. Secondary quasiconverbial suffixes, based on participles or deverbal nominal derivatives, include (conv. comp.) $-x-A r$ 'instead of', (conv. succ.) $-x-l-A r$ 'as soon as', (conv. contemp.) -ms-Ar 'when, after', (conv. abtemp.) $-s-A r$ 'when, since'. The suffixal complex $-x-A$ functions as a supine. Phonologically and/or orthographically, an exceptional feature is involved in the conditional converb marker -wl, which appears as -bl after stems ending in $l m w(\mathrm{~L})$, e.g. ol- 'to find' : conv. cond. ol-bol, yaw- 'to go' : cond. conv. yaw-bal.

Examples of non-finite paradigms: (O) $\mathbf{0} \mathrm{g}-$ 'to give' : part. fut. $\mathbf{o ̈ g} \mathbf{0}-\mathbf{x}$ : imperf. $\mathbf{0} \mathbf{g}-\mathbf{o ̈} \mathbf{0 ̈}$ : perf. ög-sön : hab. ög-dög : ag. ögö-gc : conv. mod. ögö-n : imperf. ög-c : perf. ög-ööd : cond. ög-wöl : conc. ögö-wc : term. ög-töl; (O) gar- 'to exit' : part. fut. gara-x : imperf. gar-aa : perf. gar-san : hab. gar-dag : ag. gara-ge : conv. mod. gara-n : imperf. gar-c : perf. gar-aad : cond. gar-wal : conc. gara-we : term. gar-tal; (V) inee- 'to laugh' : part. fut. inee-x : imperf. inee/g-ee : perf. inee-sen : hab. inee-deg : ag. inee-ge : conv. mod. inee-n : imperf. inee-j : perf. inee/g-eed : cond. inee-wel : conc. inee-wc : term. inee-tel.

## TENSE AND ASPECT

The temporal and aspectual differences of finite predicates in Khalkha are expressed by using a mixture of actual finite indicative forms and finitely used participles. The two basic tenses are past and non-past. In the past tense range there are three modally differentiated categories, which, in the lack of better terms, may be identified as the plain past, the direct past, and the indirect past.

Morphologically, the affirmative non-past (present-future) tense is expressed by the durative. For action verbs, this tense refers to events that take place after the moment of speech, e.g. [what happens if I eat this mushroom?] ci üx-ne 'you will die'. For stative verbs, the reference is to a state that obtains at the time of speaking, e.g. ter mongol xel med-ne 'he knows Mongol'. In interrogative sentences, the durative can be replaced by the futuritive participle, especially for action verbs, e.g. awax uu 'will [you] buy [it]?', though the durative can also be used, especially for static verbs, e.g. baina uu 'is [it there]?'. In the negative construction, however, only the futuritive participle can be used, e.g. awax=güi ‘[I] will not buy [it]', baix=güi '[it] is not [there]'.

In the past tense range, the direct past is morphologically identical with the confirmative. This form indicates that the speaker has witnessed the situation himself, e.g. [the speaker has just seen the king arrive:] xan ir-lee 'the king has arrived'. The indirect past, by contrast, is morphologically identical with the resultative, and indicates that the speaker has not personally experienced the situation, but has heard about it from someone else (quotational), e.g. [the speaker has not seen the king but has heard that he has arrived:] xan ir-jee 'the king has [reportedly] arrived'. The indirect past can also refer to situations which the speaker has inferred from their consequences (inferential), e.g. [seeing that the ground is wet:] boroo or-jee 'it has [obviously] rained'.

The plain past is expressed by the perfective (past) participle, though, as a stylistic variant seldom used in the colloquial language, the terminative can also occur in this
function. Since it seems that the use of the direct and indirect past forms is not obligatory, the plain past is an alternative in most contexts, depending on whether or not the speaker wants to stress how he obtained his knowledge of the situation. The plain past can refer either to specific events or to accumulated past experience (experiential), e.g. ta minii axtai uulz-san uu 'did you meet my brother [as was expected]?' or: 'have you [ever] met my brother?'.

Since the direct and indirect past forms cannot be negated as such, their modal content cannot be expressed in a negative sentence. The normal negated form of the past tense is based on the imperfective participle, e.g. (affirmative) bi uulz-san 'I have met [him]' vs. (negative) bi uulz-aa=güi 'I have not met [him]'. Occasionally, though not very commonly, the perfective participle is also used with negation. In such cases, reference is made to a unique and definite event which, against expectations, did not occur, e.g. [the king is expected to arrive:] xan ir-sen=guii '[it turned out that] the king did not arrive'.

There are at least four aspectual categories, which may be referred to as the perfective, progressive, habitive, and intensive aspect. The progressive aspect (progressive construction) is formed by combining the imperfective converb of the semantic main verb with the proper tense form of the auxiliary bai- 'to be'. The progressive (like the English progressive) is the normal category used for ongoing actions that take place at the time of speaking, or at the same time as another action took place in the past, e.g. [what is your brother doing right now?] (non-past) ter zaxia bici-j bai-na 'he is writing letters', [what was your brother doing yesterday when you went to see him?] (past) ter zaxia bici-j bai-san 'he was writing letters'. The most common patterns of negation are of the types (non-past) bic-ee=güi bai-na and (past) bici-j bai/g-aa=güi.

The habitive aspect is expressed by the habitive participle, which in the marked (past) tenses is combined with the auxiliary bai-. This aspect is widely used in Khalkha, and it is obligatory for situations that occur repeatedly or habitually, e.g. [what does your brother usually do after breakfast?] zaxia bic-deg '[he] writes letters', [what did your brother usually do after breakfast last summer?] zaxia bic-deg bai-san '[he] wrote letters'. The habitive can also be used generically, e.g. [what kind of sounds do cows make?] üxer möör-dög 'cows moo'.

The perfective aspect (perfect) is formed by combining the perfective participle of the main verb with the auxiliary bai- 'to be'. This construction denotes that an event has taken place before, but is still relevant at, the time of reference. Like the indirect past (expressed by the resultative), the perfective aspect often emphasizes that the speaker has inferred the action from its result, e.g. [seeing that the ground is wet:] (dur.) boroo orson bai-na 'it has rained'. The time of reference is expressed by the proper tense suffix on the auxiliary, with the past tenses indicating a time of reference before the moment of speaking (pluperfect), e.g. ['did you find your brother at home?'] (conf.) ter yawcix-san bai-laa '[no,] he had left'. The corresponding negative construction is based on the imperfective participle, e.g. [when you came to this place a year ago, had you met my brother?] bi uulz-aa=güi bai-san '[no,] I hadn't met [him]'.

The intensive aspect is expressed by the derivative suffix .cx- .cix-, which forms new verbal stems that can be inflected for tense and aspect. The intensive aspect is often used for punctual actions, and it indicates that something happens unexpectedly or suddenly, or is done forcefully and completely. It typically occurs either in the past tense or in the non-past with a future reference, e.g. [have you heard the news?] xan alagd.cix-jee (res.) 'the king has been killed', [if you don't stop playing with the ball:] (dur.) bi aw.cix-na 'I'll take it away'. It is frequently combined with the perfective aspect, e.g. [when you come back:] bi ene zaxiag bic.cix-sen bai-na 'I will have written this letter'.

The futuritive and imperfective participles can be used in main clauses to denote irreal mood, implying that the speaker believes, but does not know for sure, that a situation obtains. Temporal and aspectual differences can be shown by combining the irreal forms of the auxiliary bai- 'to be' with suitable participial forms of the preceding main verb, e.g. (irreal future) ter ire-x bai-x 'he will probably come', [what do you think your brother is doing right now?] (irreal progressive non-past) ter zaxia bici-j bai/g-aa 'he is probably writing letters'.

## PHRASE TYPES

In the regular noun phrase, most modifiers precede the head noun. The common types of modifier include adjectival nouns, e.g. zuzaan nom 'a thick book'; numerals, e.g. dörwön nom 'four books'; and possessives marked with the genitive ending, e.g. bagshiin nom 'the teacher's book'. A noun which is not a possessive modifier can nevertheless stand in the genitive, e.g. öwl-iin shönö 'winter night'; or it can have the extended stem with the element -ng (originally the unstable */n), e.g. modo-n baishin 'a wooden building'. Constructions with nominal modifiers often correspond to English compounds.

A synchronically problematic type of nominal modifier is involved by nouns which would formally seem to be in the possessive case form, e.g. süü-tei tsai 'milk tea', with süü 'milk' : poss. süü-tei 'with milk'. Although diachronically it is a question of possessive adjectival derivatives (and not a case form), the synchronic borderline between derivation and inflection is open to various interpretations. A related problem concerns the status of the privative construction, containing the negative clitic $=$ güi in examples like süü=güi tsai 'tea without milk'.

Certain quantifiers, notably bür 'every', and the clitic forms of the possessive pronouns (the possessive suffixes) follow the head noun, e.g. ödör bür 'every day', nöxör miny 'my husband'.

There is no agreement within noun phrases. Although case and reflexive suffixes belong to the whole noun phrase, they are added phonologically to its last word, e.g. (abl. refl.) dörwön tom modon baishin/g-aas-aa 'from [his] own four big wooden houses', (acc.) xawar, zün, namar, öwl-iig dörwön uliral gedeg 'the spring, summer, autumn, and winter are called the four seasons', (gen.) jil bür-iin negdügeer sar 'the January [literally: 'the first month'] of every year'. The clitic possessives follow case suffixes, e.g. (acc. px sg. 2p.) öwc-tei shüd-iig ciny aw-na 'he will extract your aching tooth'.

The basic spatial relations are expressed with cases, but postpositions are used for more specific spatial relations, and for other grammatical relations for which case forms are not available. In the postpositional phrase, the semantic head noun can appear in different cases, including the nominative, genitive, and ablative, e.g. (nom.) deewer deer 'on the roof', margaash xürtel 'until tomorrow'; (gen.) Mongol-ïn tölöö 'for the sake of Mongolia', shiree $/ \mathbf{n}$-ii dor 'under the table', baishin/g-iin ömnö 'in front of the building'; (abl.) dörwön tsag-aas ömnö 'before four o'clock'. The directive postposition ruu 'to, towards', though written as a separate word, is reminiscent of a suffix, in that it has the harmonic alternant rüü and the dissimilatory variants luu lüü (after stems ending in $r$ ), e.g. shuudan ruu 'to the post office', delgüür lüü 'to the shop'.

Special lexicalized and/or grammaticalized verbal phrases are formed by the modal and imperfective converbs. The modal converb is mainly used to link two verbs into a compound-like combination, e.g. xülee-n aw- 'to receive' (literally: 'to wait and take'). The imperfective converb, which basically indicates simultaneous action, is often used with auxiliaries of the types cad- 'to be able' (modal) and or- 'to enter' (directional),
e.g. bi sawxaar ide-j cad-na 'I can eat with chopsticks', ter or-j ir-sen 'he came in' (literally: 'he entered and came'). The progressive construction, with the auxiliary bai-, is also based on this phrase type.

## SIMPLE SENTENCES

The basic word order is subject-object-verb (SOV). An indirect object usually precedes the direct object. The order of constituents before the predicate is, however, rather free.

The subject of a main clause is in the unmarked (nominative) form, e.g. xüü güisen 'the boy ran'. The direct object may be in the nominative or accusative. The more animate and definite the object is, the more likely it is to be in the accusative (Mizuno). A personal pronoun or the name of a person obligatorily requires the accusative, e.g. bi cam-aig üzsen 'I saw you', while an inanimate and indefinite noun is typically in the nominative, e.g. xüü nom unshsan 'the boy read a book'. Between these extremes, both the nominative and the accusative are possible. For instance, an inanimate noun preceded by a demonstrative pronoun can be in either case form, e.g. (nom.) xüü ene nom unshsan or (acc.) xüü ene nom-ïg unshsan 'the boy read this book'. The nominative object is more common in the colloquial language, while the written language tends to prefer the accusative. The indirect object is in the dative case (1).
(1) Xüü öcigdör oxin-d nom ög-sön.
boy yesterday girl-DAT book give-P:PERF
'The boy gave a book to the girl yesterday.'
A constituent which is a topic is usually placed at the beginning of a clause. The topic position can also be emphasized by using a topic marker, most commonly bol 'as for'. When a direct object is topicalized it requires the accusative case (2). A clause with a topicalized object corresponds more or less to a passive clause in English. The place closest to the predicate is focused, usually containing new information.
(2) Ene nom-ïg Bat oxin-d ög-sön. this book-ACC Bat girl-dAT give-P:PERF 'This book was given by Batu to the girl.'

Although the verb-final requirement is rather strong, it is possible to place a personal pronoun subject after the verb for special emphasis (3) in a pattern reminiscent of the originally enclitic personal predicative endings in several other Mongolic languages.
(3) Ene nom-ïg mart-san uu ci. this book-ACC forget-P:PERF INTERR SG:2P 'You forgot this book, didn't you!'

The case forms indicating spatial relations are the dative (location at or direction to), ablative (direction from), and instrumental (direction through or along), e.g. (dat.) bi Mongol-d suuj baina 'I live in Mongolia', (abl. and dat.) bi Xyatad-aas Mongol-d irsen 'I came from China to Mongolia', (instr.) aaw uul-aar xony xariulsan 'father herded sheep along the mountains'. The instrumental is also the case that marks a noun indicating an instrument, e.g. xyatad xün sawx-aar iddeg 'Chinese people eat with chopsticks'.

Clauses with a nominal word as the predicate are constructed with the copular verb bai- 'to be', which can be inflected for tense and aspect. The copula is not necessary for temporally and aspectually unmarked situations obtaining at the time of speech,
e.g. (non-past tense) minii düü bagsh 'my brother is a teacher', though it can be present especially with adjectival nouns, e.g. us xüiten or us xüiten bai-na 'the water is cold'. In temporally or aspectually marked situations, the proper form of the copula is required, e.g. (past tense) minii düü bagsh bai-san 'my brother was a teacher', (habitive aspect) us xüiten bai-dag 'the water is [usually] cold'. The negative copula is bish, e.g. minii düü bagsh bish 'my brother is not a teacher', us xüiten bish 'the water is not cold'.

Since there is no verb corresponding to the concept of 'to have', possession is expressed by either a nominal clause with the possessed in the possessive case (4), or an existential clause with the possessor in the dative case (5).

$$
\begin{array}{llll}
\text { Zaan xoyor } & \text { tom } & \text { soyoo-toi. }  \tag{4}\\
\text { elephant two } & \text { big } & \text { tusk-poss } \\
\text { 'The elephant has two big tusks.' }
\end{array}
$$

(5) Zaan-d xoyor tom soyoo bai-na. elephant-dat two big tusk be-DUR 'The elephant has two big tusks.'
Interrogative clauses of the yes/no type are marked with the final particle $=U$ (orthographically uu or üü), after vowels $=y U$ (yuu or yüü), e.g. ci ene nom awax uu 'will you buy this book?', (nominal predicate:) cinii düü emc üü 'is your brother a doctor?'. Pronominal questions require the corrogative particle $=w$ (orthographically we), after nasals $=b$ (be), e.g. xen tsai uusan be 'who drank tea?'.

Pronominal question words normally occupy the same place as the corresponding constituent of an affirmative clause, cf. e.g. oxin yüü uusan be 'what did the girl drink?' (with yüü 'what' as the object), oxin xen-d nomïg ögsön be 'to whom did the girl give the book?' (with dat. xen-d 'to whom' as the indirect object), oxin nomïg yaa-san be 'what did the girl do with the book?' (with part. perf. yaa-san 'done-what' as the transitive predicate). When occurring in the focus position, pronominal question words can also be placed immediately before the verb, e.g. tsai xen uusan be 'who [is the one who] drank tea?', oxin nomïg xen-d ögsön be 'to whom [exactly] did the girl give the book?'.

## PASSIVE AND CAUSATIVE

Both the passive and the causative are marked derivationally on the verbal base. The passive is not very common in the spoken language, and, when there is no overt agent, the active verb, with the object in the accusative, is normally used, e.g. (passive) xaalga nee.gd.sen or (active) xaalg-ïg nee-sen 'the door was opened', (active) ene nom-ïg oxind ögsön 'this book was given to the girl'. The equivalent of an English passive sentence with an overt agent is most often expressed by topicalizing the direct object, e.g. xaalg-ig Bat neesen 'the door was opened by Batu'.

The causative is more common than the passive. When an intransitive verb is causativized, the causee is treated as a direct object, which is either unmarked (nominative) or in the accusative case, e.g. (nom.) bi zaxia yaw.uul-san 'I sent a/the letter', (acc.) bi Bat-ïg yaw.uul-san 'I sent Batu' (literally: 'I made Batu go'). When a transitive or ditransitive verb is causativized, the case-marking of direct and indirect objects is not changed, and the causee is in the instrumental case (6-7).

[^0](7) Bi Bat-aar Dorji-d alim ög.üül-sen.

SG:1p Batu-INSTR Dorji-DAT apple give.CAUS-P:PERF
'I made Batu give an apple to Dorji.'
The causee can also be in the dative. This indicates that the action of the base verb is controlled by the causee, rather than the causer, e.g. (dat.) bi Bata-d alim id.üül-sen 'I [unintentionally] let Batu eat an apple', in contrast to the instrumental causee, which has little or no control of the action, e.g. (instr.) bi Bat-aar alim id.üül-sen 'I [intentionally] made Batu eat an apple'. If there is no direct object, the causer subject takes the patient role, e.g. xony cono/n-d id.üul-sen 'the sheep was eaten by the wolf' (literally: 'the sheep let the wolf eat'). In such sentences, the subject cannot be analysed as a topicalized object, since it cannot take the accusative ending. Thus, the causative results in a passive-like construction.

## COMPLEX SENTENCES

Subordinate clauses are formed by using participles and converbs in various subordinate positions. The two main types of subordinate clause are relative clauses and embedded clauses. Finite sentences can also be subordinated with the help of the complementizer ge- 'to say'.

In relative clauses, participles function as nominal modifiers and precede their head noun. The relativized constituent is deleted, e.g. (part. perf.) gutal öms-sön oxin 'the girl who wore boots' (relativized subject). When another constituent than the subject is relativized, the subject of the relative clause is in the genitive, e.g. (gen. + part. hab) oxin-ï öms-dög gutal 'the boots that the girl usually wears' (relativized direct object), (gen. + part. fut.) oxin-ï nom ögö-x xün 'the man to whom the girl will give a book' (relativized indirect object), (gen. px sg. 2p. + part. imperf. progr.) aaw-ïn ciny ajilla-j bai/g-aa uildwer 'the factory where your father is working' (relativized locative phrase).

An embedded clause which is the subject of the main clause ends with a participle form in the nominative (8). In complement clauses (in object position), the final participle is in the accusative ( $9-11$ ), or in the reflexive form (unmarked for case) if the subjects of the main clause and the embedded clause are coreferential (12). The complement clause can occupy the normal object position (9) or be topicalized (10). The subject may stand in the nominative or accusative.
(8) Shöl sawx-aar id-ex xetsüü.
soup chopsticks-INSTR eat-P:FUT difficult
'It is difficult to eat soup with chopsticks.'
(9) $\mathbf{B i}$ Dulmaa-g margaash ire-x-iig med-ne.

SG:1P Dulmaa-ACC tomorrow come-P:FUT-ACC know-DUR 'I know that Dulmaa will come tomorrow.'
(10) Ter/Tüün-iig zaxia bic-sn-iig bi xar-san.
that/-ACC letter write-P:PERF-ACC SG:1P see-P:PERF 'I saw that he wrote a letter.'
(11) Us xüiten bai-gaa-g bi med-ne.
water cold be-P:IMPERF-ACC SG:1P know-DUR
'I know that the water is cold.'

## (12) $\mathbf{B i}$ zaxia bic-sn-ee mart-san.

SG:1P letter write-P:PERF-REFL forget-P:PERF 'I forgot that I had written a letter.'

Participles with dative case marking form temporal subordinate (quasiconverbial) clauses. The subject may stand in the nominative or accusative (13), or it can be expressed by a possessive or reflexive suffix (14). If the temporal relation is expressed with a postposition, the participle takes the appropriate case suffix (15).
(13) Bi/Nam-aig delgüür-t bai-xa-d Bat shuudan-d yaw-san. SG:1P/-ACC shop-DAT be-P:FUT-DAT Batu post:office-DAT go-P:PERF 'When I was in the shop, Batu went to the post-office.'
(14) $\mathbf{B i}$ Mongol-d bai-x-d-aa ene nom-ïg aw-san.
sG:1p Mongolia-dat be-P:fut-dat-refl this book-aCC buy-P:Perf 'I bought this book when I was in Mongolia.'

| Ci | yadra-x-aas-aa <br> SG:2P | ömnö | unta-x | xeregtei. |
| :--- | :--- | :--- | :--- | ---: | 'You have to [go to] sleep before you get tired.'

The subject of subordinate clauses formed with the terminative and conditional converbs can also be in the nominative or accusative (16-17). The conditional converb is often accompanied by the sentence-initial conjunction xerew or xerwee 'if'. The conditional copula is expressed by the particle bol 'if [it] is', which is also used in the negative conditional construction, cf. e.g. (conv. cond.) zogs-wol 'if [you] stop' vs. (part. fut. neg. cond.) zogso-x=güi bol 'if [you] don't stop'.
(16) Bi cam-aig ir-tel xülee-ne.

SG:1P SG:2P-ACC come-CV:TERM wait-DUR
'I will wait until you come.'
(17) Ci/Cam-aig ene nom aw-bal bi unsh-na.
$\mathrm{SG}: 2 \mathrm{P} /-\mathrm{ACC}$ this book buy-CV:COND SG:1p read-DUR 'If you buy this book, I will read it.'

Subordinate clauses ending with the imperfective converb denote actions which take place at the same time as the action of the main verb (18), while the perfective converb denotes actions taking place before that of the main verb (19).
(18) Ter sandal deer suu-j nom unshi-j baina.
that chair upon sit-cv:IMPERF book read-PROGR-DUR 'He is sitting in a chair reading a book.'
(19) Xüü möngö aw-aad oxin-d beleg aw-san.
boy money take-cv:PERF girl-DAT present buy-P:PERF 'When the boy had got the money he bought a present for the girl.'

The complementizer ge- 'to say' is basically used to indicate reported speech. It can, however, also form complement (object) clauses to other verbs. Its most common form is conv. imperf. ge-j 'saying', which functions synchronically as a quotative particle (20-22, cf. 11).

| Ter | zaxia | bici-j bai-na | ge- |
| :--- | :--- | :--- | :--- |
| that | letter | xel-sen. |  |
| write-PROGR-DUR | QUOTE | speak-P:PERF |  |
| 'He said that he was writing a letter.' |  |  |  |

(21) Zaxia bic-sen üü ge-j bi tüün-ees asuu-laa. letter write-P:PERF INTERR QUOTE SG:1P that-ABL ask-CONF 'I asked him if he had written a letter.'

## (22) Us xüiten ge-j bi med-ne.

water cold QUote SG:1P know-DUR
'I know that the water is cold.'
The rules governing the case form of the subject in subordinate clauses can be generalized as follows: when the subjects of the main clause and the subordinate clause are coreferential, the subject is overtly present only in the main clause and stands in the nominative ( $12,14-15,18-19)$. If the subordinate clause ends in a participle, it often takes the reflexive suffix (12, 14-15). If the subjects of the main clause and the subordinate clause are not coreferential, the subject of the subordinate clause can be in the nominative, accusative, or genitive.

The choice between accusative and nominative subjects depends on animacy and definiteness (Mizuno). For animate and definite subjects, the accusative is often used, but the nominative is always a possible alternative, especially in the spoken language (10-11, $13,17,22$ ). Genitive subjects occur with relative clauses, but may also be used with other subordinate clauses which end in a participle.

## LEXICON

Khalkha retains much of the heterogeneity of the Proto-Mongolic and Common Mongolic lexicon. Even in the modern language there are many old loanwords deriving from a variety of sources (often through Ancient Uighur), e.g. arxi 'liquor' (ultimately from Arabic), bar 'tiger' (ultimately from Persian), erdene 'jewel' (ultimately from Sanskrit), nom 'book' (ultimately from Greek), sawan 'soap' (ultimately from Germanic).

Later loanwords mainly come from three sources: Chinese, Tibetan, and Russian. Interestingly, the number of Chinese loanwords is relatively small, although the Mongols have for centuries been in close contact with the Chinese. In this respect, Khalkha is even less affected than the Mongol dialects spoken in Inner Mongolia. The Chinese elements that have made their way to Khalkha are mainly connected with material culture, e.g. buuz 'dumpling', guanz 'restaurant', luus 'mule', waar 'tile', tsonx 'window'. Many of these words have a Common Mongolic distribution.

The Tibetan loanwords are mainly connected with the expansion of Buddhism from Tibet to Mongolia, especially in the seventeenth century. Apart from religious terms like lam 'lama' and xorloo 'prayer wheel', the Tibetan elements also include more general items, e.g. garcig 'index', namtar 'biography'. The most commonly used set for the days of the week is also of Tibetan origin ('Sunday' to 'Saturday'): nyam, dawaa, myagmar, lxagwa, pürew, baasan, byamba.

Many modern political and scientific terms have been borrowed from Russian, though most of them derive ultimately from Greek or Latin. Those Russian loans that have entered the everyday vocabulary have often been changed according to Khalkha phonological rules, e.g. piwo [ $p^{h}$ i:w] 'beer', tyeatr [ $t f^{h} a:^{\text {h }}$ tər] 'theatre', ocyeryedy [ $0:{ }^{\text {ht }} t \int ə r$ ]
'queue'. The Khalkha Cyrillic spelling of such words follows Russian, and those who know Russian well tend to pronounce them as in Russian.

Most recently, English words have been borrowed, though some of them have obviously also come through Russian, e.g. baar 'bar', emeil.d- 'to e-mail', kanoon.d- 'to photocopy' (from the trade mark Canon).

Generally, the Khalkha normative literary language has tended to be lexically conservative and puristic. The possibility of creating new words by derivation and compounding is often preferred to direct loans, and many technical terms in Khalkha have been formed in this way, e.g. awia.l.bar 'phoneme' (based on awia 'sound').

## REFERENCES AND FURTHER READING

Bawden, Charles R. (1997) Mongolian-English Dictionary, London: Kegan Paul International.
Beffa, Marie-Lise and Roberte Hamayon (1975) Éléments de grammaire mongole, Paris: Dunod.
Bertagaev, T. A. (1964) Sintaksis sovremennogo mongol'skogo yazyka, Moskva: Nauka.
Binnick, Robert I. (1979a) Modern Mongolian - A Transformational Syntax, Toronto: University of Toronto Press.
Binnick, Robert I. (1979b) 'Past and Perfect in Modern Mongolian Past Tense', in Henry Schwarz (ed.), Studies on Mongolia: Proceedings of the First North American Conference on Mongolian Studies, Bellingham: Western Washington University, pp. 1-13.
Binnick, Robert I. (1990) 'On the Pragmatic Differentiation of the Mongolian Past Tense', Mongolian Studies 13: 47-56.
Binnick, Robert I. (1991) Time and the Verb: A Guide to Tense and Aspect, New York: Oxford University Press.
Chingeltei [Cavggaldai] and Shinetge [Sinatgae] (1959) 'Muvgqhul Galav u vUivdusuv vXgasig ut uv Tuqai', vUibur Muvgqhul uv Yagae Surqhaqhuli jiv vXrdam Sivczilgav u Satgul (2): 97-114.
Hangin, Gombojab et al. (1986) A Modern Mongolian-English Dictionary [= Indiana University Publications, Uralic and Altaic Series 150], Bloomington.
Hattori, Shirô (1982) 'Vowel Harmonies of the Altaic Languages, Korean, and Japanese', Acta Orientalia Hungarica 36: 207-14.
Luwsandendew [Luvsandèndèv], A. (1957) Mongol'sko-russkii slovar', Moskva: Gosudarstvennoe izdatel'stvo nacional'nyx i inostrannyx slovarei.
Luwsandendew [Luvsandèndèv], A. and Ts. Tsedendamba [C. Cèdèndamba] (eds) (2001-2002) Bol'shoi akademicheskii mongol'sko-russkii slovar' 1-4, Moskva: Academia.
Mizuno, Masanori (1992) 'Accusative Subjects in Khalkha Mongolian', Paper presented at the Fifth International Congress of Mongolists, Ulan Bator.
Poppe, Nicholas [N. N.] (1931) Prakticheskii uchebnik mongol'skogo razgovornogo yazyka (Xalxaskoe narechie), Leningrad: Izdanie Leningradskogo Vostochnogo instituta.
Poppe, Nicholas [Nikolaus] (1951) Khalkha-mongolische Grammatik, mit Bibliographie, Sprachproben und Glossar [= Veröffentlichungen der Orientalischen Kommission 1], Wiesbaden: Franz Steiner.
Poppe, Nicholas (1970) Mongolian Language Handbook, Washington: Center for Applied Linguistics.
Posch, Udo (1964) 'Khalkha und Verwandtes', Mongolistik [= Handbuch der Orientalistik I: V, 2], pp. 115-33.
Ramstedt, G. J. (1902) [1903] 'Das schriftmongolische und die Urgamundart phonetisch verglichen', Journal de la Société Finno-Ougrienne 21 (2): 1-56.
Ramstedt, G. J. (1903) Über die konjugation des Khalkha-mongolischen [= Mémoires de la Société Finno-Ougrienne 21], Helsingfors.
Rialland, Annie and Redouane Djamouri (1984) 'Harmonie vocalique, consonantique et structures de dépendance dans le mot en mongol khalkha', Bulletin de la Société de Linguistique de Paris 79: 333-83.

Sanzheev [Sanzheyev], G. D. (1973) The Modern Mongolian Language [Languages of Asia and Africa], Moscow: Nauka.
Street, John C. (1963) Khalkha Structure [= Indiana University Publications, Uralic and Altaic Series 24], Bloomington.
Stuart, Don Graham and Matthew Haltod (1957) 'The Phonology of the Word in Modern Standard Mongolian', Word 13: 65-99.
Svantesson, Jan-Olof (1985) 'Vowel Harmony Shift in Mongolian', Lingua 67: 283-327.
Svantesson, Jan-Olof (1991) 'Tense, Mood and Aspect in Mongolian', Working Papers (Department of Linguistics, Lund University), 38: 189-204.
Svantesson, Jan-Olof (1994) 'Mongolian Syllable Structure', Working Papers (Department of Linguistics, Lund University) 42: 225-39.
Svantesson, Jan-Olof (1995) 'Cyclic Syllabification in Mongolian', Natural Language and Linguistic Theory 13: 755-66.
Tsewel, Ya. (1966) Mongol xelnii towc tailbar toly, Ulaanbaatar: Ulsïn xewleliin xereg erxlex xoroo.
Vietze, Hans-Peter and Ludwig Zenker (1976) Rückläufiges Wörterbuch der mongolischen Sprache, Leipzig: VEB Verlag Enzyklopädie.
Yaxontova, N. S. (1997) 'Mongol'skii yazyk', in Mongol'skie yazyki - Tunguso-man'chzhurskie yazyki - Yaponskii yazyk - Koreiskii yazyk [Yazyki Mira], Moskva: Rossiiskaya Akademiya Nauk \& Izdatel'stvo Indrik, pp. 108-24.


[^0]:    (6) $\mathbf{B i}$ Bat-aar zaxia-g bic.üül-sen.

    SG:1P Batu-INSTR letter-ACC write.CAUS-P:PERF
    'I made Batu write the letter.'

