The Mongolic Vowel Shift revisited

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Goal

- To show the Mongolic (Great) Vowel Shifts (Svantesson 1985) is untenable
- To propose a new analysis for the historical development of the Mongolic vowel systems

Gist

- Mongolic (Great) Vowel Shifts (MVS hereafter) (Svantesson 1985)
  - Old Mongolian: a palatal system (front-back contrast)
  - Mod. Khalkha: an RTR system (tongue root contrast)
  - Thus, a palatal-to-RTR shift

- My claim
  - Old Mongolian: an RTR system
  - No such a great vowel shift
  - Cf. Mod. Kalmyk/Oirat palatal system

Old Mongolian

- Old Mongolian (Svantesson et al. 2005:98)
  - The immediate ancestor language that can be reconstructed from documents written in four different scripts: Uigurs, Chinese, Arabic, and 'Phags-pa in the 13th to 14th centuries
  - Cf. Middle Mongol (Rybatzki 2003), Middle Mongolian (Poppe 1955)

- Proto-Mongolic (Janhunen 2003:1)
  - The technical term for the common ancestor of all the living and historically attested Mongolic languages

- Classical Mongolian (Written/Literary Mongolian)
  - The written language which has been used since about the 13th century and is still used by the Mongols of Inner Mongolia, China (Poppe 1954, 1955; Svantesson 1985; Janhunen 2003)

Outline

- Svantesson’s Mongolic vowel shifts
- Proposal: an RTR analysis of OM
- Evidence
- The development of the Mongolic vowel systems
- Conclusion

Pre-modern Mongolic vowel system

- Proto-Mongolic
  - Janhunen (2003:4) *i  *u  *e  *a
  - Svantesson et al. (2005:111)

<table>
<thead>
<tr>
<th>Front</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i y u</td>
</tr>
<tr>
<td>Nonhigh</td>
<td>e o a o</td>
</tr>
</tbody>
</table>
Modern Mongolic vowel systems

The Mongolic vowel shift revisited

MVS (1): Kalmyk/Oirat type

Kalmyk and Oirat = OM palatal system

MVS (2): Monguor

Monguor, Santa, Bonan, Moghol

MVS (3): Mongolian type

Mongolian, Buriat, Khannigan, Shira Yugur, Kangjia

MVS (4): Dagur type

Problems of the MVS

Based on an assumption yet to be proven

“It is generally assumed that OM (and Proto-Mongolic) had palatal (back-front) vowel harmony, and we will also make this assumption. There is, however, only incomplete support for this in the sources.” (Svantesson et al. 2005:113)

No internal motivation

“Velarization and pharyngealization are not conditioned by the phonological environment, and have no obvious internal motivation.” (Svantesson et al. 2005:178)
Velarization

- Front Vs are assumed to move backward.
- A violation of Labov's Principle III of vowel shifting

Three principles of vowel shifting (Labov 1994:116)

**PRINCIPLE I** long vowels rise.
**PRINCIPLE II** short vowels fall.
**PRINCIPLE III** back vowels move to the front.

Velarization alone cannot explain the velar-uvular distinction in, e.g., Monguor and Santa.

Evidence in favor of the RTR analysis of OM

- Comparative methods (Campbell 2004:131ff)
  - Majority wins
  - Economy
  - Naturalness (directionality)

- Textual evidence
  - Mongolian-Chinese correspondence (Hattori 1975)
  - Mongolian-Korean correspondence (K-M Lee 1964)

Majority wins

- Reconstruction of OM vowels
  - Sound correspondence (cf. Svantesson et al. 2005: 180)
    - Kharla: a ϕ u e o u i
    - Barkar: a o u a o u i
    - Mongor: a o u, o i, e o, u u i
    - Bonaa: a o u a o u i
    - Santa: a o u i, e o u i
    - Moghol: a, o o u e o u i
    - Burat: a o u e u u i
    - Khanarigan: a o u e u u i
    - Dagur: a o a u u i
    - Kalmuk: a o u e o y i

Reconstruction
- Old Mongolian *a *o *u *i

Economy (1)

Old Mongolian

- Kalmyk/Oirat
- Monguor
- Khalkha
- Dagur

An RTR analysis

Economy (2)

Old Mongolian

- Kalmyk/Oirat
- Monguor
- Khalkha
- Dagur

Majority wins

- Reconstruction of OM vowels
  - Sound correspondence
    - Kharla: a ϕ u e o u i
    - Barkar: a o u a o u i
    - Mongor: a o u, o i, e o, u u i
    - Bonaa: a o u a o u i
    - Santa: a o u i, e o u i
    - Moghol: a, o o u e o u i
    - Burat: a o u e u u i
    - Khanarigan: a o u e u u i
    - Dagur: a o a u u i
    - Kalmuk: a o u e o y i

Reconstruction
- Old Mongolian *a *o *u *i
The Mongolic vowel shift revisited

- **Palatal-to-TR shift (Svantesson’s proposal)**
  - No known phonetic principles
  - No known attested cases

- **TR-to-palatal shift (a reverse shift)**
  - Phonetically grounded:
    - TB movement is concomitant with TR movement (Lindau 1975; Archangeli & Pulleyblank 1994)
    - Attested in e.g., Somali, Louisiana English
    - Explains the Southwest Turkic voicing
    - Simplification
    - Enhancement of the perceptability (F2 difference)
    - Maximal distribution of the back vowels

- **Mongolian loanwords in Middle Korean**
  - Examples (K-M Lee 1964; 1972[2011])

<table>
<thead>
<tr>
<th>Mong.</th>
<th>Kor.</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ü~</td>
<td>ฆ</td>
<td>küreng</td>
</tr>
<tr>
<td>ö~</td>
<td>ง</td>
<td>kögsin</td>
</tr>
<tr>
<td>u~</td>
<td>ก</td>
<td>ED ࣢ XGDO paotal</td>
</tr>
<tr>
<td>o~</td>
<td>ก</td>
<td>olong</td>
</tr>
</tbody>
</table>

- **MM-Chinese correspondence**
  - Hattori (1975)
    - “It is more likely that Middle Mongolian had a vowel harmony of ‘open-narrow’ type (= TR type)”
  - In the transcription of the Secret History of the Mongols into Chinese characters
    - MM ü – Chinese u
      - /u/ (or /w/), /v/ [ku], /i/ [ku²], /e/ [ku²] (or /ku²]
      - /kɯ/ [ku] /
    - Rationale:
      - The transcription was made based on Northern dialect, maybe Beijing dialect (by assumption).
      - 14th c. Pekingese had the distinction between [u][w] and [y][w].

- **Vowel correspondence**
  - palatal-RTR analysis: Unlikely

<table>
<thead>
<tr>
<th>OM (palatal system)</th>
<th>MK (RTR system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;i&gt;</td>
<td>i</td>
</tr>
<tr>
<td>&lt;e&gt;</td>
<td>e</td>
</tr>
<tr>
<td>&lt;a&gt;</td>
<td>a</td>
</tr>
<tr>
<td>&lt;u&gt;</td>
<td>y</td>
</tr>
<tr>
<td>&lt;ø&gt;</td>
<td>o</td>
</tr>
</tbody>
</table>

- **MK: an RTR system**
Vowel correspondence (cont.)

**RTR-RTR analysis: My view**

<table>
<thead>
<tr>
<th>OM (RTR system)</th>
<th>MK (RTR system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;i&gt;</td>
<td>i</td>
</tr>
<tr>
<td>&lt;e&gt;</td>
<td>ə</td>
</tr>
<tr>
<td>&lt;a&gt;</td>
<td>a</td>
</tr>
<tr>
<td>&lt;u&gt;</td>
<td>u</td>
</tr>
<tr>
<td>&lt;o&gt;</td>
<td>o</td>
</tr>
<tr>
<td>&lt;ə&gt;</td>
<td>o</td>
</tr>
<tr>
<td>&lt;o&gt;</td>
<td>ə</td>
</tr>
</tbody>
</table>

**Development of the Mongolic vowel systems**

Khalkha type

- No shift

```
OM          Khalkha
i           i
u           u
ə          ə
a           a
```

Monguor type

- RTR neutralization

```
OM          Monguor
i           i
u           u
ə          ə
a           a
```

Dagur type

- Height neutralization

```
OM          Buriat/Khamnigan          Dagur
i           i
u           u
ə          ə
a           a
```

Kalmyk/Oirat type

- RTR-to-palatal shift (an innovation)

```
OM          Kalmyk
i           i
u           u
ə          ə
a           a
```

A reinterpretation of the harmonic feature:

- Phonetically grounded: [a RTR] → [ə dorsal] (Vaux 2009)
- Possibly due to Turkic influence (cf. Kögjiltü 1982)
- Cf. Kazakh: reported as an RTR system (Vajda 1994)
Development of Mongolic vowel systems
(Ko 2011)

Conclusion

- The Mongolic Vowel Shifts (Svantesson 1985) is not well-supported.
- Evidence shows that the original Mongolic vowel system is based on RTR contrast.
- This RTR analysis of OM gives better explanation for the development of the modern Mongolic vowel systems.

Appendix

CH approach: Khalkha (an example)

<table>
<thead>
<tr>
<th>Language</th>
<th>Contrastive hierarchy</th>
</tr>
</thead>
<tbody>
<tr>
<td>[cor] &gt; [low] &gt; [lab] &gt; [RTR]</td>
<td></td>
</tr>
</tbody>
</table>

Mongolic vowel systems

- **Mongolian Proper (e.g., Khalkha, Chakhar)**
  - cor > lab > RTR
- **Monguor, Santa, Bonan, Moghol**
  - cor > lab > RTR
- **Dagur, Buriat, Khamnigan**
  - cor > lab > RTR
- **Kalmyk, Oirat**
  - cor > lab > dor

Turkic vowel systems

- **Turkish, Uyghur** (Vaux 2000)
  - low > lab > cor
- **Kazakh** (Vajda 1994)
  - low > lab > RTR

Korean vowel systems

- **Middle Korean**
  - cor > lab > RTR
- **Early Modern Korean; NW Korean**
  - cor > high > lab
- **Modern SE Korean**
  - cor > high > lab
- **Jeju Korean**
  - cor > high > lab > low

Selected references