Vowel raising processes in Uyghur

Connor Mayer
Department of Language Science
University of California, Irvine
Two vowel raising processes in Uyghur

<table>
<thead>
<tr>
<th>Vowel reduction</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>bala</em> ‘child’</td>
<td><em>balilar</em></td>
<td>‘children’</td>
</tr>
<tr>
<td><em>tapan</em> ‘paw’</td>
<td><em>tapini</em></td>
<td>‘her paw’</td>
</tr>
<tr>
<td><em>selle</em> ‘turban’</td>
<td><em>selliler</em></td>
<td>‘turbans’</td>
</tr>
<tr>
<td><em>apet</em> ‘custom’</td>
<td><em>apiti</em></td>
<td>‘her custom’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Umlaut (Regressive assimilation)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>yan</em> ‘side’</td>
<td><em>yéni</em></td>
<td>‘her side’</td>
</tr>
<tr>
<td><em>ten</em> ‘body’</td>
<td><em>téni</em></td>
<td>‘her body’</td>
</tr>
<tr>
<td><em>yeydu</em> ‘she eats’</td>
<td><em>yémek</em></td>
<td>‘to eat’</td>
</tr>
</tbody>
</table>
Background: Syllables

**Syllables** are a unit of timing in a sequence of speech sounds.

In Uyghur, each syllable has **exactly one vowel** (nucleus).

How many syllables in these words?

- at
- bala
- uniwérsitét
- uyghur
- xet
- weten
Syllable structure

Syllables can have consonants **preceding** and **following** the vowel

- Material preceding the vowel is called the **onset**
- Material following the vowel is called the **coda**

A syllable with no coda is called an **open syllable**

- V, CV, CCV, etc.

A syllable with a coda is called a **closed syllable**

- VC, CVC, CVCC, etc.
Syllables in Uyghur

Most syllables in Uyghur are V, CV, VC, CVC
• Some exceptions to this, like meshq (CVCC), dost (CVCC), proféssor (CCV), etc., but Uyghur speakers often ‘repair’ these.

Identify the onset and coda of the following monosyllables. Which are open and which are closed syllables?

at xet u shu dost
po ta el bu brak
Syllabifying words

We use a **period** to indicate **syllable boundaries**.

Sometimes words can be syllabified in multiple ways
- Is it *ba.la* or *bal.a*?

**Rule of thumb:** Consonants prefer to be in onsets rather than codas

- *ba.la* not *bal.a*

This only holds when doing so doesn’t create “bad” onsets
- *mesh.chit*, not *me.shchit*
- When in doubt, ask yourself “could I start a word with these sounds?”
Syllabification practice

Add syllable boundaries to the following words

ziyaret  apet  sözlesh  meshqler
dostum  qandaq  qeshqer  qebristan
Process 1: Vowel reduction

Vowel reduction turns \( a (\iota) \) and \( e (\epsilon) \) into \( i (\varepsilon) \) in word-medial, open syllables

- **Word-medial**: Neither the first nor last syllable in the word
- **Open**: Without a coda

<table>
<thead>
<tr>
<th>Word</th>
<th>Example</th>
<th>Word</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>ba.la</code></td>
<td>‘child’</td>
<td><code>ba.li.lar</code></td>
<td>‘children’</td>
</tr>
<tr>
<td><code>ta.pan</code></td>
<td>‘paw’</td>
<td><code>ta.pi.ni</code></td>
<td>‘her paw’</td>
</tr>
<tr>
<td><code>sel.le</code></td>
<td>‘turban’</td>
<td><code>sel.li.ler</code></td>
<td>‘turbans’</td>
</tr>
<tr>
<td><code>a.pet</code></td>
<td>‘custom’</td>
<td><code>a.pi.ti</code></td>
<td>‘her custom’</td>
</tr>
<tr>
<td>Word</td>
<td>Transcription</td>
<td>Question</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><em>bala</em></td>
<td>‘child’</td>
<td><em>Why don’t these vowels reduce?</em></td>
<td></td>
</tr>
<tr>
<td><em>balilar</em></td>
<td>‘children’</td>
<td><em>Why does the final vowel of ‘bala’ reduce? Why doesn’t the vowel in –lar?</em></td>
<td></td>
</tr>
<tr>
<td><em>balilirim</em></td>
<td>‘my children’</td>
<td><em>Why does the vowel in –lar reduce here but not above?</em></td>
<td></td>
</tr>
<tr>
<td><em>balilargha</em></td>
<td>‘to the children’</td>
<td><em>Why doesn’t the vowel in –lar reduce here?</em></td>
<td></td>
</tr>
</tbody>
</table>
Exceptions to vowel reduction

Many words (mostly loanwords) categorically fail to reduce

- hawa ‘weather’
- hawasi ‘its weather’
- derya ‘river’
- deryalar ‘rivers’
- seweb ‘reason’
- sewebi ‘her reason’

These need to be memorized (but you can guess if you suspect the origin)
Exceptions to vowel reduction

Vowel reduction is **triggered by suffixation**

\[
\text{ma.qa.le} \quad \text{‘article’} \quad \text{not } *\text{ma.qi.le}
\]

Most suffixes undergo vowel reduction, but **some don’t**

- **wat:** \quad \text{jü.gü.ri.wa.ti.du} \quad \text{‘she is running’} \quad \text{not } *\text{jü.gü.ri.wi.ti.du}
- **ele/ala:** \quad \text{jü.gü.re.ley.du} \quad \text{‘she can run’} \quad \text{not } *\text{jü.gü.ri.ley.du}

The progressive suffix **–wat** does not trigger vowel reduction

\[
\text{englidi} \quad \text{‘she listened’} \quad \text{englawatidu} \quad \text{‘she is listening’}
\text{sözlidi} \quad \text{‘she spoke’} \quad \text{sözlewatidu} \quad \text{‘she is speaking’}
\]
Process 2: Umlaut

Umlaut turns $a$ (ا) and $e$ (ە) into $\acute{\text{e}}$ (ې)

Like vowel reduction, umlaut targets open syllables

Unlike vowel reduction:
• The syllable must be word-initial
• The vowel of the following syllable must be $i$ (ى) or $e$ (ە)
# Umlaut triggered by \( \text{i} (ی) \)

<table>
<thead>
<tr>
<th>Word</th>
<th>English Meaning</th>
<th>Umlauted Form</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>yan</td>
<td>'side'</td>
<td>yení</td>
<td>'her side'</td>
</tr>
<tr>
<td>bash</td>
<td>'head'</td>
<td>béshi</td>
<td>'her head'</td>
</tr>
<tr>
<td>ten</td>
<td>'body'</td>
<td>téni</td>
<td>'her body'</td>
</tr>
<tr>
<td>xet</td>
<td>'letter'</td>
<td>xéti</td>
<td>'her letter'</td>
</tr>
<tr>
<td>bardi</td>
<td>'she went'</td>
<td>béríšh</td>
<td>'going'</td>
</tr>
<tr>
<td>berdi</td>
<td>'she gave'</td>
<td>béríšh</td>
<td>'giving'</td>
</tr>
<tr>
<td>yazdi</td>
<td>'she wrote'</td>
<td>yézíšh</td>
<td>'writing'</td>
</tr>
<tr>
<td>kesti</td>
<td>'she cut'</td>
<td>késíšh</td>
<td>'cutting'</td>
</tr>
</tbody>
</table>
Umlaut triggered by e

\[ \text{yeydu} \quad \text{‘she eats’} \quad \text{yéme}k \quad \text{‘to eat’} \]
\[ \text{deydu} \quad \text{‘she says’} \quad \text{déme}k \quad \text{‘to say’} \]
\[ \text{bermek} \quad \text{‘to give’} \quad \text{bére}y \quad \text{‘I’ll give!’} \quad \text{bérele}ydu \quad \text{‘she can give’} \]
\[ \text{kelmek} \quad \text{‘to come’} \quad \text{kéle}y \quad \text{‘I’ll come!’} \quad \text{kélele}ydu \quad \text{‘she can come’} \]

\[ \text{cf.} \]
\[ \text{barmaq} \quad \text{‘to go’} \quad \text{barray} \quad \text{‘I’ll go!’} \quad \text{baralaydu} \quad \text{‘she can go’} \]
## Fossilized umlaut

Some Uyghur words display permanent umlaut

<table>
<thead>
<tr>
<th>Modern word</th>
<th>Historical form</th>
</tr>
</thead>
<tbody>
<tr>
<td>béliq</td>
<td>baliq</td>
</tr>
<tr>
<td>étiz</td>
<td>atiz</td>
</tr>
<tr>
<td>hékim</td>
<td>hekim</td>
</tr>
<tr>
<td>shéhit</td>
<td>shehit</td>
</tr>
</tbody>
</table>
Semi-fossilized umlaut

Some words have umlaut in unsuffixed forms, but not in (some) suffixed forms

éghiz ‘mouth’

aghzim ‘my mouth’
Exceptions to umlaut

*i* produced by vowel reduction does not trigger umlaut

\[ \text{balilar} \quad \text{‘children’} \quad \text{not} \quad \text{*bélilar} \]

Some roots categorically resist umlaut

\[ \text{sani} \quad \text{‘her number’} \quad \text{not} \quad \text{*séni} \]
\[ \text{kari} \quad \text{‘her business’} \quad \text{not} \quad \text{*kéri} \]
\[ \text{peri} \quad \text{‘her feather’} \quad \text{not} \quad \text{*péri} \]
Exceptions to umlaut

The non-past verbal suffix -i triggers umlaut for e but not for a!

\[
\begin{array}{lll}
\text{bērīmen} & \text{‘I will give’} & \text{not} & \text{*berimen} \\
\text{tēpīdu} & \text{‘she will kick’} & \text{not} & \text{*tepīdu}
\end{array}
\]

BUT

\[
\begin{array}{lll}
\text{barīmen} & \text{‘I will go’} & \text{not} & \text{*bērīmen} \\
\text{tāpīdu} & \text{‘she will find’} & \text{not} & \text{*tēpīdu}
\end{array}
\]
Raising in contractions (for future reference)

Uyghur is full of *converbial constructions*, where the main verb is suffixed with \(-\text{(i)}p\) and a following “helper” verb contributes some meaning.

The verbs *almaq* ‘take’ and *bermek* ‘give’ can function as helper verbs

\[
\begin{align*}
\text{anglidi} & \quad \text{‘she listened’} & \text{anglap aldi} & \quad \text{‘she listened’} \\
\text{sözli} & \quad \text{‘she spoke’} & \text{sözlep berdi} & \quad \text{‘she spoke’}
\end{align*}
\]

(for her own benefit)

(for someone else’s benefit, or despite some difficulty)
Raising in contractions

-\textit{\textit{p} al} is often contracted to –\textit{wal}

\begin{equation*}
\text{anglap aldi} \quad \rightarrow \quad \text{angliwaldi}
\end{equation*}

-\textit{\textit{p} ber} is often contracted to –\textit{wer}

\begin{equation*}
\text{sözlep berdi} \quad \rightarrow \quad \text{sözlewerdi}
\end{equation*}
Reduction and umlaut in contractions

Both raising and umlaut in contractions violate the descriptions above

Umlauting can occur on the vowel in –wal/–wer (when it would usually apply) even though the target syllable is not word-initial

\[
\begin{align*}
\text{anglawérimen} & \quad \text{not} \quad *\text{anglawerimen}, *\text{anglawirimen} \\
\text{angliwélish} & \quad \text{not} \quad *\text{angliwalish}, *\text{angliwilish}
\end{align*}
\]

Raising occurs before –wal but not before –wer

\[
\begin{align*}
\text{angliwaldi} & \quad \text{not} \quad *\text{anglawaldi} \\
\text{anglawerdi} & \quad \text{not} \quad *\text{angliwerdi}
\end{align*}
\]
Why are contractions so weird?

Broadly speaking, raising and umlauting in contractions are the same as in the uncontracted form, even though this violates general patterns.

A complication to this is raising, which follows the uncontracted form, but with the word boundary erased (which changes syllabification).

<table>
<thead>
<tr>
<th>Uncontracted:</th>
<th>Uncontracted (one word):</th>
<th>Contracted:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ang.lap#al.di</td>
<td>ang.lap#ber.di</td>
<td>ang.li.wal.di</td>
</tr>
</tbody>
</table>
Conclusion

General patterns of vowel reduction and umlaut are sensitive to syllable structure, position in word, and (for umlaut) following vowel identity.

There are numerous exceptions to both that must be memorized.

Raising and umlauting are usually represented orthographically

- But, e.g., RFA often writes *amérikaliq* ‘American’, but this is always pronounced *amérilikiliq*
Contact info

Email: cjmayer@uci.edu

Website: connormayer.com

Excruciating detail in my dissertation: