Rendaku in the Kahoku Dialect of Yamagata Japan

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Rendaku

- Morphophonemic phenomenon found mainly in compounds in Japanese.
- Rendaku in TJ (Tokyo Japanese)

/ori/  ‘fold’
/kami/  ‘paper’
/ori + kami/  \[origami\]
QUESTION

- How does rendaku surface when a dialect exhibits different voicing contrasts than Tokyo Japanese?

<table>
<thead>
<tr>
<th>Tokyo</th>
<th>Yamagata</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>[mato]</td>
<td>[mado]</td>
<td>‘target’</td>
</tr>
<tr>
<td>[mado]</td>
<td>[mando]</td>
<td>‘window’</td>
</tr>
</tbody>
</table>

- [origami] or [ori^n^gami]?
Outline

- Rendaku Background (TJ)
- Yamagata (Kahoku) dialect
- Yamagata Rendaku
  - Co-existing variations in Yamagata rendaku
  - Dialect Contact
  - Problems toward synchronic analysis
Rendaku in TJ

Initial voiceless obstruent is voiced in a compound word (preceded by a vowel)
/ori/  ‘fold’
/kami/  ‘paper’
/ori + kami/  → [origami]

However, rendaku is highly irregular.
Rendaku irregularity

- Many morphemes do not behave this way, although some cases are systematically constrained for rendaku. For example, Lyman’s Law (Layman 1894).
  
  /tori + kago/ [torikago] ‘birdcage’ (bird + cage)  
  * [torigago]

- Many morphemes show unpredictable alternation for no apparent reason.

  e.g. /kami/ ‘hair’
  /mae + kami/ [maegami] ‘front hair (= bangs)’  
  /kuro + kami/ [kurokami] ‘black hair’
Rendaku irregularity (cont.)

Historically speaking, some alternations in TJ involve more than just a voicing difference. That is, /b/ alternates with /h/, not with /p/.

(note: /h/ is realized as [ɸ] before [u])

e.g. /se + hone/ [se bone] ‘backbone’
    /gomi + hukuro/ [gomi buku ro] ‘trash bag’

TJ speakers see all the rendaku alternations as instances of the same general phenomenon.

/h/~/b/ are just like /t/~/d/ & /k/~/g/

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Kahoku Dialect

- It is a Tohoku dialect.

- Many Tōhoku dialects have word-medial pre-nasalized voiced obstruents.

  e.g. [kaᵐbe] ‘wall’ ([kabe] in TJ)

- These dialects have word-medial [ᵐb], [ⁿd], [ⁿdz], and [ⁿɡ] (or [ŋ]) corresponding to TJ word-medial [b d z ɡ].
Kahoku Dialect (cont.)

- One of the Yamagata dialects.
- Yamagata:
  Population: 1,223,739 (2012)
  (www.geocities.jp)

- There is considerable diversity among the dialects in the area.

- We focus on this traditional dialect (Kahoku) of Yamagata Prefecture.
Kahoku in Yamagata

- A Yamagata dialect spoken in Kahoku-cho (town).

- A co-author (Miyashita) grew up in Kahoku-cho, and finds the dialect spoken in the Shōnai region (yellow) almost incomprehensible.

- The Kahoku dialect is the representative Yamagata dialect and source for our presentation.

**Kahoku Population**

20,990 (2012)

[www.geocities.jp](http://www.geocities.jp)

YJ (Yamagata Japanese)
Prenasalization & Voicing

- In Yamagata Japanese (YJ), prenasalized voiced obstruents correspond to plain voiced obstruents in TJ.

  e.g.  
<table>
<thead>
<tr>
<th>YJ</th>
<th>TJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>[mado]</td>
<td>[mato]  ‘target’</td>
</tr>
<tr>
<td>[mãndo]</td>
<td>[mado]  ‘window’</td>
</tr>
</tbody>
</table>
Yamagata Rendaku

- **Prediction:**
  Instances of rendaku in \( YJ \) are realized as prenasalized voiced obstruents

- In deed, prenasalized voiced obstruents are found in many cases of YJ rendaku.
### Rendaku in Yamagata

<table>
<thead>
<tr>
<th>Yamagata (YJ)</th>
<th>Tokyo (TJ)</th>
<th>Gloss</th>
<th>Morphology (TJ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[himbadzi]</td>
<td>[hibatʃi]</td>
<td>‘hibachi’</td>
<td>/hi + hachi/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(fire – pot)</td>
</tr>
<tr>
<td>[sundare]</td>
<td>[sudare]</td>
<td>‘bamboo blind’</td>
<td>/su + tare/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(rattan – drape)</td>
</tr>
<tr>
<td>[tondana]</td>
<td>[todana]</td>
<td>‘cabinet’</td>
<td>/to + tana/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(door – shelf)</td>
</tr>
<tr>
<td>[hamāŋgiri]</td>
<td>[hamaguri]</td>
<td>‘clam’</td>
<td>/hama + kuri/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(beach – chestnut)</td>
</tr>
</tbody>
</table>

- There are some compounds with **no prenasalized voiced obstruents.**
No Prenasalization: [beɲibana]

- **YJ** – **TJ** correspondence of /mb/ and /b/ is particularly interesting.

- In **TJ**, rendaku pairs /h/ with /b/ (/h/ < OJ [p]).
  
  e.g.  /beɲi/ ‘rouge’
  /hana/ ‘flower’
  /beɲi+hana/ [beɲibana] ‘safflower’

- In **YJ**, it is also /beɲi+hana/[beɲibana]. Without prenasalization
### Contrasts in YJ

**Word-initially**

Three-way contrast

<table>
<thead>
<tr>
<th>[hasi]</th>
<th>‘chopsticks’</th>
<th>/haʃi/</th>
</tr>
</thead>
<tbody>
<tr>
<td>[papa]</td>
<td>‘daddy’</td>
<td>/papa/</td>
</tr>
<tr>
<td>[bago]</td>
<td>‘fool’</td>
<td>/baka/</td>
</tr>
</tbody>
</table>

**Word-medially**

Four-way contrast

| [siohãm̃a] | ‘salt flat’ | /sio+hama/ |
| [piripiri] | ‘spicy’     | /piri+piri/ |
| [be̞ni̞bana] | ‘echo’      | /be̞ni+hana/ |
| [dē̞mbeso] | ‘protruding navel’ | /de+heso/ |
No Prenas: Possible Account

[benibana] ‘safflower’

- Possible account: this Yamagata word for ‘safflower’ used to have prenasalization and lost it.

- Many compounds have prenasalized and non-prenasalized variations.
Co-existing Alternatives

<table>
<thead>
<tr>
<th>Free Variations</th>
<th>Gloss</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[migodo]</td>
<td>‘wonderful’</td>
<td>/mi + koto/ (see – thing)</td>
</tr>
<tr>
<td>[mingodo]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[tegami]</td>
<td>‘letter’</td>
<td>/te + kami/ (hand + paper)</td>
</tr>
<tr>
<td>[tengami]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[jamagada]</td>
<td>‘Yamagata’</td>
<td>/yama + kata/ (mountain – shape)</td>
</tr>
<tr>
<td>[jamãŋgada]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Old Fashioned
Dialect Contact

- The situation in YJ is complicated by the strong influence of TJ.
- Government’s role on “Standardization” in education and academia since late 19th contributed to the idea of “standard = proper” among communities.
- This also contributed to the fact that non-TJ dialect speakers becoming bidialectals: some in younger generations prefer using TJ over traditional dialects.
- Examples of non-prenasalized rendaku could be the case of assimilation to the “standard”.

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Toward Synchronic Analysis

- We need a synchronic analysis of the phonological system of YJ before we can decide what counts as rendaku.

- The presupposition that the “underlying system is just like TJ” must be abandoned.

- Also it is necessary to resist the temptation to think that all Tōhoku dialects are pretty much the same.
Some phonetic details

- There are phonetic details that require careful consideration.
- Prenasalization seems to have developed into a moraic nasal in some words:

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>[kãŋ:ge]</td>
<td>/kage/</td>
<td>‘behind’</td>
<td></td>
</tr>
<tr>
<td>[kãŋge]</td>
<td>/kage/</td>
<td>‘shadow’</td>
<td></td>
</tr>
</tbody>
</table>
Some phonetic details (cont.)

- Some nasals corresponding to TJ syllable-initial nasals are longer than others, making the preceding vowel nasal
  - [bãːmːba] /baba/ ‘grandma’
  - [kamã̄mbogo] /kamaboko/ ‘fish paste’

- It could be that the dialect has developed a phonemic distinction between nasal and oral vowels
  - [ɕime] ?/hime/ ‘princess’
  - [ɕĩmːo] ?/hĩmo/ ‘string’
Co-phonology problem

- Problem of how to model the phonological system of a bi-dialectal speaker.
- The languages of bilingual speakers influence each other to some degree even when the two languages are not related or typologically similar.
- This kind of mutual influence is even more profound in the case of two dialects, especially when one is a “standard” variety of a national language.
- “Co-existent phonemic systems” and “Co-phonologies” have been around for more than half a century. (Fries & Pike 1949)
Co-phonology problem (cont.)

- A bi-dialectal speaker does not have just two discrete varieties.
- S/he controls a *continuum* that ranges from near-“standard” to something much closer to a “pure” traditional variety.
Bidialectal Continuum

- When an non-prenasalized, word-medial voiced stop in YJ (e.g. [beɲibana]) corresponds to a voiced stop in TJ, it is tempting to handle it as a kind of unassimilated or only partially assimilated loanword from TJ.

- However, the influence of TJ is not confined to cases of borrowing.
## Example

<table>
<thead>
<tr>
<th>Yamagata Free Variations</th>
<th>Gloss</th>
<th>(Tokyo)</th>
</tr>
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<tbody>
<tr>
<td>[mɨⁿɡodo]</td>
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<td>‘wonderful’ /mi + koto/ (see – thing)</td>
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<tr>
<td>[teⁿɡami]</td>
<td>[teɡami]</td>
<td>‘letter’ /te + kami/ (hand + paper)</td>
</tr>
<tr>
<td>[têᵐbiɡiro]</td>
<td>[tebiɡiro]</td>
<td>‘glove’ /te + higiro/ (hand – bag)</td>
</tr>
<tr>
<td>[maᵐbida]</td>
<td>[mabooleanbida]</td>
<td>‘eyelid’ /me + φɪta/ (eye – lid)</td>
</tr>
<tr>
<td>[jamãⁿɡada]</td>
<td>[jamagada]</td>
<td>‘Yamagata’ /yama + kata/ (mountain – shape)</td>
</tr>
</tbody>
</table>
Over Time (generational)

- A TJ word can influence the pronunciation of a YJ cognate, as in the case of innovative pronunciation pushing out traditional one.

[jamãŋgada]  
Traditional

[jamãgada]  
TJ-Influenced

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Conclusion

- Rendaku in Yamagata Japanese: both prenasalized and non-prenasalized voiced obstruents are found.
- Some are always non-prenasalized.
- Rendaku investigation is complicated by the problem of co-phonology and bidialectalism.
- Until we determine what counts as rendaku in Yamagata Japanese (and other Tohoku dialects), we cannot advance in rendaku investigation.
Conclusion

- Raises issues
  - Importance of research in bilingualism/bidialectalism.
  - Methodology in determining a grammar of one language in the mind of bilinguals.
  - Linguistic study of a language which is in the process of rapid linguistic change due to bilingualism/bidialectalism.
Thank you for your kind attention
Acknowledgements

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- Field Research Participants in Kahoku-cho, Yamagata, Japan.
Appendix - kana

In kana spelling, however, rendaku is transparent: the difference between the voiced alternant and the voiceless alternant of a morpheme is always just the presence versus absence of the dakuten diacritic on the first letter.
## Appendix - kana

<table>
<thead>
<tr>
<th>/fune/</th>
<th>ふね</th>
<th>/kawa+bune/</th>
<th>かわ＋ぶね</th>
</tr>
</thead>
<tbody>
<tr>
<td>/hako/</td>
<td>はこ</td>
<td>/haši+bako/</td>
<td>はし＋ぱこ</td>
</tr>
<tr>
<td>/tama/</td>
<td>たま</td>
<td>/me+dama/</td>
<td>め＋だま</td>
</tr>
<tr>
<td>/kami/</td>
<td>かみ</td>
<td>/kabe+gami/</td>
<td>かべ＋がみ</td>
</tr>
<tr>
<td>/cuka/</td>
<td>つか</td>
<td>/ari+zuka/</td>
<td>あり＋づか</td>
</tr>
<tr>
<td>/sora/</td>
<td>そら</td>
<td>/hoši+zora/</td>
<td>ほし＋ぞら</td>
</tr>
<tr>
<td>/či/</td>
<td>ち</td>
<td>/hana+ţi/</td>
<td>はな＋ぢ</td>
</tr>
<tr>
<td>/šika/</td>
<td>しか</td>
<td>/ko+ţika/</td>
<td>こ＋じか</td>
</tr>
</tbody>
</table>