The 25th Conference

Japanese
Korean
Linguistics

October 12-14, 2017
@ University of Hawai‘i at Mānoa
Center for Korean Studies &
Imin International Conference Center

japanesekoreanlinguistics25@gmail.com
https://japanesekoreanlinguisticsconference25.wordpress.com
Welcome Message from the JK 25th Organizers

Aloha!

We are honored and delighted to welcome you to the 25th Japanese/Korean Linguistics Conference at the University of Hawai‘i at Mānoa in Honolulu, Hawaii in the island of Oahu. Oahu is fittingly known as “The Gathering Place”, and the JK Conference has evolved in a quarter of a century as a gathering place for leading scholars in the fields of Japanese and Korean linguistics. The great success of the previous JK conferences, together with the overwhelming response to this year’s 25th JK Conference, confirms its standing as one of the most prestigious and highly competitive conferences in the field of linguistics. This would not have been possible without our reviewers who devoted their expertise and time to help us select the outstanding lineup of oral and poster presentations out of over 180 high-quality abstracts that we received. We sincerely appreciate their contributions.

This year the JK Conference continues to provide a forum for research in a wide range of areas, syntax/semantics, psycholinguistics, phonetics/phonology, discourse analysis, and sociolinguistics. It is highlighted by invited presentations by five leading scholars in different sub-fields of Japanese and Korean linguistics.

Additionally, this year, a special half-day session at the conference is devoted to the endangered languages and dialects of Japan and Korea to raise awareness of unique languages found in the two countries (organized by Profs. Shoichi Iwasaki and William O’Grady). Also, the conference is held in conjunction with three satellite workshops on morpho-syntax in Japanese and Korean (organized by Prof. Hiroshi Aoyagi), prosody and prosodic interfaces in Japanese and Korean (organized by Prof. Haruo Kubozono), and East Asian psycholinguistics (organized by Profs. Nayoung Kwon and Yuki Hirose). The workshops will provide an important opportunity for scholars and graduate students to present and discuss their research with prominent East Asian linguistics specialists.

We would like to take this opportunity to thank the generous donations made by the sponsors, as well as the time and help contributed by many enthusiastic student volunteers. In particular, special thanks to our two graduate student assistants, Ryler Nielsen and Hye Young Smith, for their excellent assistance in preparation for the conference.

We wish you a stimulating exchange across fields and hope you enjoy the exciting program which we are lucky to have set in spectacular and unique beauty of Hawaii.

Mahalo and best wishes,

JK25 Conference Organizers

Haruko Cook, UHM
Shin Fukuda, UHM
Shoichi Iwasaki, UCLA
Mary Shin Kim, UHM
Mee-Jeong Park, UHM
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Center for Japanese Studies (Japanese Studies Endowment)
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Lee, Jee Hyun
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Mizukami, Micah
Morimoto, Kana
Ono, Christianne
Shek, Ching
Zabonik, Keely
Zhong, Jing Crystal
LIST OF REVIEWERS

We sincerely appreciate their contributions.

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Kyoko Yamakoshi
Changyong Yang
Jae-Hoon Yeon
James Yoon
Youngmee Cho Yu
Kie Zuraw
INVITED TALKS

Invited Talk #1 (Day 1, 2:00-3:00 pm, October 12)
*From tasty adjectives to succulent metaphors: What the language of food reveals*
By Natsuko Tsujimura (Indiana University)

Invited Talk #2 (Day 1, 4:50-5:50 pm, October 12)
*From fake quotations, false promises, and feigned questions into grammar: Grammaticalization of manipulative discourse strategies*
By Seongha Rhee (Hankuk University of Foreign Studies)

Invited Talk #3 (Day 2, 6:00-7:00 pm, October 13)
*Nominal-based nominalization*
By Masayoshi Shibatani (Rice University) & Sung-Yeo Chung (Osaka University)

Invited Talk #4 (Day 3, 1:00-2:00 pm, October 14)
*Korean Aspiration, Japanese Voicing, and Emergent Features*
Timothy Vance (National Institute of Japanese Language and Linguistics)

Invited Talk #5 (Day 3, 5:00-6:00 pm, October 14)
*The effect of grammatical variations on language processing*
Nayoung Kwon (Konkuk University)
**SATELLITE WORKSHOPS**

**Workshop 1**: Wednesday, October 11, 2017 (Center for Korean Studies)
Morpho-syntax in Japanese and Korean (Organizer: Hiroshi Aoyagi, Nanzan University)

https://jk25-satellite-morpho-syntax.jimdo.com/

**Workshop 2**: Wednesday, October 11, 2017 (Center for Korean Studies)
Prosody and prosodic interfaces in Japanese and Korean (Organizer: Haruo Kubozono, NINJAL)

http://crosslinguistic-studies.ninjal.ac.jp/prosody/?page_id=326&lang=en&lang=en

**Workshop 3**: Sunday, October 15, 2017 (Center for Korean Studies)
East Asian psycholinguistics: Recent developments (Organizers: Yuki Hirose, University of Tokyo, and Nayoung Kwon, Konkuk University)

https://sites.google.com/site/eastasianpsycholinguistics/
**Day 1: October 12th**

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<th>Session</th>
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| 8:00-9:00 | **Registration**  
The Center for Korean Studies (CKS) 103 |
| 9:00-9:10 | **Opening remarks** |

All Oral Presentations will be given in the Auditorium in CKS. “O1” numbers refer to corresponding abstracts for your reference.

### Syntax/Semantics 1
**Session Chair:** Kamil Deen (University of Hawai‘i at Mānoa)

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<tr>
<th>Time</th>
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Ante Kärrman (Lund University) |
| 9:40-10:10 | **O2. Particle stranding ellipsis in Japanese, string deletion, and argument ellipsis**  
Yosuke Sato (NUS) and Masako Maeda (Kyushu Institute of Technology) |
| 10:10-10:40 | **O3. Darou as an entertain modal with a shiftable deictic agent: An inquisitive approach**  
Yurie Hara (Waseda University/Hokkaido University) |

Coffee break (10:40-10:50)

### Phonetics/Phonology 1
**Session Chair:** Taehong Cho (Hanyang University)

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| 10:50-11:20 | **O4. The perception of tonal clash in interrogative melodies of Tokyo Japanese: A cross-linguistic perspective**  
Mayuki Matsui (NINJAL/JSPS) and Hyun Kyung Hwang (RIKEN) |
Kohei Nishimura (Iwaki Meisei University) |

Lunch break (11:50-1:00)

### Poster Session 1
1:00-2:00 the CKS Lobby

Invited Talk #1 (2:00-3:00)

*From tasty adjectives to succulent metaphors: What the language of food reveals*

Natsuko Tsujimura (Indiana University)

Coffee break (3:00-3:10)

### Sociolinguistics/Discourse analysis 1
**Session Chair:** Tomoko Endo (Seikei University)

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<tr>
<th>Time</th>
<th>Presentation</th>
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</table>
| 3:10-3:40  | **O6. “How about eggs?”: Action ascription in the family decision-making process during grocery shopping at a supermarket**  
Takeshi Hiramoto (Kyoto University) and Makoto Hayashi (Nagoya University) |
### Day 2: October 13th

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<th>Time</th>
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<td>9:00-9:10</td>
<td>Opening remarks</td>
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<td>9:00-9:15</td>
<td>Opening Remarks</td>
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<td>9:15-9:45</td>
<td>O9. On the anaphoric use of demonstratives in Miyakoan</td>
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<td>Tomohide Kinuhata (Fukuoka University) &amp; Yuka Hayashi (JSPS/NINJAL)</td>
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<tr>
<td>9:45-10:15</td>
<td>O10. Dialects in diaspora or diaspora dialects: Distinguishing transplanted varieties of Korean</td>
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<td>Simon Barnes-Sadler (SOAS, University of London)</td>
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<td>10:25-10:55</td>
<td>O11. Spatial frames of reference in Miyako: Digging into Whorfian linguistic relativity</td>
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<td>Kenan Celik (Kyoto University), Yukinori Takubo (Kyoto University) &amp; Rafael Núñez (University of California, San Diego)</td>
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<tr>
<td>10:55-11:25</td>
<td>O12. Integrating analysis and pedagogy in the revitalization of Jejueo</td>
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<td></td>
<td>William O’Grady (University of Hawai‘i at Mānoa), Changyong Yang (Jeju National University) &amp; Sejung Yang (University of Hawai‘i at Mānoa)</td>
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<td>11:25-12:00</td>
<td>Panel Discussion: Moderated by Shoichi Iwasaki</td>
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<td>William O’Grady (University of Hawai‘i at Mānoa), Sejung Yang (University of Hawai‘i at Mānoa), Yukinori Takubo (Kyoto University), Nobuko Kibe (NINJAL)</td>
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Coffee break (10:15-10:25)

Lunch break (12:00-1:00)

### Poster Session 2
1:00-2:30 Imin Center, Koi Room
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<th>Time</th>
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<th>Speaker(s)</th>
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| 2:30-3:00  | O13. *An eye-tracking study on the role of prosody in phonological inferencing: A case of post-obstruent tensing rule in Korean*  
Sahyang Kim (Hongik University), Holger Mitterer (University of Malta) and Taehong Cho (Hanyang University) |                                                                                                  |
| 3:00-3:30  | O14. *What accounts for adoptees’ advantages in birth-language relearning?*  
Choi Jiyoun (Hanyang University) |                                                                                                  |
|            | Coffee break (3:30-3:40)                      |                                                                                                  |
Mikyung Ahn (Hankuk University of Foreign Studies) and Foongha Yap (Chinese University of Hong Kong, Shenzhen) |                                                                                                  |
Yosho Miyata (Meiji Gakuin University) |                                                                                                  |
|            | Coffee break (4:40-4:50)                      |                                                                                                  |
| 4:50-5:20  | O17. *Ongoing sound change primes age-appropriate lexical items*  
Jonny Kim (University of Hawai‘i at Mānoa) & Katie Drager (University of Hawai‘i at Mānoa) |                                                                                                  |
Shin-Ichiro Sano (Keio University) |                                                                                                  |
|            | Coffee break (5:50-6:00)                      |                                                                                                  |
|            | Invited Talk #3 (6:00-7:00)                   |                                                                                                  |
|            | *Nominal-based nominalization*                 |                                                                                                  |
|            | Masayoshi Shibatani (Rice University) & Sung-Yeo Chung (Osaka University) |                                                                                                  |
|            | Conference Banquet: CKS Lobby                 |                                                                                                  |
|            | 7:00-8:30                                     |                                                                                                  |
|            | We will take this opportunity to honor and celebrate Dr. Ho-Min Sohn's contributions to the JK conference. |                                                                                                  |
Day 3: October 14th

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<td>Session Chair: Seongha Rhee (Hankuk University of Foreign Studies)</td>
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<td>9:10-9:40</td>
<td>O19. <em>On the rise of douride ‘no wonder’ as a projector and the reformulation of discourse sequential relations in Japanese</em></td>
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<td>Reijirou Shibasaki (Meiji University)</td>
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<td>9:40-10:10</td>
<td>O20. <em>Interactional functions of verbalizing troubles: Self-addressed questions in Japanese conversation</em></td>
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<td>Tomoko Endo (Seikei University) and Daisuke Yokomori (Kyushu University)</td>
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<td>Mee-Jeong Park (University of Hawai‘i at Mānoa)</td>
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Coffee break (10:40-10:50)

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<td>Session Chair: Victoria Anderson (University of Hawai‘i at Mānoa)</td>
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<td>10:50-11:20</td>
<td>O22. <em>Inhibition of Korean palatalization in L2 English: Electropalatographic data</em></td>
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<td>Alexei Kochetov, Kelly-Ann Blake, Andrei Munteanu, Fiona Wilson, Jessica Yeung &amp; Luke Zhou (University of Toronto)</td>
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<td>11:20-11:50</td>
<td>O23. <em>Rendaku as a means of identity avoidance within and between morphemes</em></td>
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<td>Masaki Sone (University of Tokyo) and Yuki Hirose (University of Tokyo)</td>
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Lunch break (11:50-1:00)

Invited Talk #4 (1:00-2:00)

*Korean Aspiration, Japanese Voicing, and Emergent Features*

Timothy Vance (NINJAL)

Coffee break (2:00-2:10)

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<th>Time</th>
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<td><strong>Syntax/Semantics 3</strong></td>
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<td>Session Chair: Kazue Kanno (University of Hawai‘i at Mānoa)</td>
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<td>Hitomi Minamida (Cornell University)</td>
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<td>2:40-3:10</td>
<td>O25. <em>A Configurational approach to the light verb Ha- ellipsis in Korean</em></td>
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<td>Changguk Yim (Chung-Ang University)</td>
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<td>3:10-3:40</td>
<td>O26. <em>Imperatives with/without necessity</em></td>
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<td>Shun Ihara (JSPS/Osaka University) and Yuya Noguchi (Osaka University)</td>
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Coffee break (3:40-3:50)
### Psycholinguistics 2
Session Chair: J.J. Nakayama (Ohio State)

| 3:50-4:20         | O27. Processing of Japanese scrambled sentences in (in)felicitous context  
|                  | Masataka Yano (Tohoku University/JSPS) and Masatoshi Koizumi (Tohoku University) |
| 4:20-4:50        | O28. Violating Burzio’s generalization is bad, no matter how often you see it  
|                  | Junna Yoshida (University of Tsukuba) and Edson T. Miyamoto (University of Tsukuba) |

Coffee break (4:50-5:00)

Invited Talk #5 (5:00-6:00)
*The effect of grammatical variations on language processing*
Nayoung Kwon (Konkuk University)

6:00-6:20 Concluding Remarks

### Poster Session 1
October 12th 1:00-2:00
CKS Lobby

| P1. Scope marking in Japanese  
Yoshiki Fujiwara (University of Connecticut) | P2. The unavailability of superlative movement out of Korean nominal phrases  
Sarah Hyeyeon Lee (University of Southern California) |
|------------------------------------------|--------------------------------------------------------------------------|
| P3. Deontic modality in Japanese: Positioning the recommendation-type modal expressions  
Tsz Ming Lee (University of Southern California) & Tsz Fung Lau (University of Edinburgh) | P4. Expectation-driven facilitation in Japanese: Its independence from distance  
Hajime Ono (Tsuda College) & Mao Sugi (Tsuda College) |
| P5. A labeling-based approach to floating numeral classifiers in Korean and Japanese  
Myung-Kwan Park (Dongguk University) & Nobu Goto (Toyo University) | P6. On sentence-final particle sa in Hokkaido Japanese  
Sanae Tamura (Hokusei Gakuen University),  
Toshio Matsuura (Hokusei Gakuen University) & Yoshihisa Kishimoro (Hokkaido University) |
| *P7. Pseudogapping in Japanese  
Hideharu Tanaka (Mie University) & Shintaro Hayashi (Nanzan University) | *P8. Korean vowel articulation is not sensitive to phonological neighborhood density  
Rory Turnbull (University of Hawai‘i at Mānoa) & Jeffrey Holliday (Korea University) |
**Poster Session 2**  
**October 13th**  
1:00-2:30 - Imin Center, Koi Room

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<td>Hitomi Hirayama (University of California, Santa Cruz)</td>
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<table>
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<td>Ryoichiro Kobayashi (Sophia University/JSPS)</td>
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<tr>
<td>Jinwoo Jo (University of Delaware) &amp; Mai Ha Vu (University of Delaware)</td>
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<tr>
<td>Kazuhiko Fukushima (Kansai Gaidai University)</td>
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<tr>
<td>Han-Byul Chung (Seoul National University)</td>
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</tbody>
</table>

*P9. *Age-graded vowel raising and the linguistic marketplace in Korea*  
So Young Yi (Hankuk University of Foreign Studies)  
P10. *Stancetaking in Korean conversation: Maliya construction to accomplish intersubjectivity*  
Hyunjung An (University of Hawai‘i at Mānoa)  
P11. *Online parsing of Korean reflexive caki: Evidence for direct retrieval of antecedent*  
Namseok Yong (The Graduate Center, City University of New York)
<table>
<thead>
<tr>
<th><strong>Phonetics/Phonology</strong></th>
<th><strong>Psycholinguistics</strong></th>
<th><strong>Endangered and understudied languages and dialects in Japan and Korea</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>P13. Interaction of phonology and morphology in Sino-Japanese: From a corpus-based approach</strong>&lt;br&gt;Chihkai Lin (Tatung University)</td>
<td><strong>P16. Pronoun interpretation with referential and quantificational antecedents in SLA</strong>&lt;br&gt;Eun Hee Kim (University of Illinois at Urbana-Champaign)</td>
<td><strong>P22. Plural forms in Yoron dialect in Amami, Japan</strong>&lt;br&gt;Nobuko Kibe (NINJAL) &amp; Hajime Oshima (NINJAL)*** Alternate papers**</td>
</tr>
<tr>
<td><strong>P14. The Orthographic Lyman’s Law and OCP effects in Japanese nicknames</strong>&lt;br&gt;Gakuji Kumagai (NINJAL)</td>
<td><strong>P17. Raising-to-subject in Korean: Evidence from honorific agreement and NPI licensing</strong>&lt;br&gt;Jinsun Choe (Hankuk University of Foreign Studies)</td>
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<tr>
<td><strong>P15. The influence of OCP on word truncation: A study of modern Japanese abbreviation of compound loanword nouns with long vowels</strong>&lt;br&gt;Changyun Moon (University of Tsukuba/JSPS)</td>
<td><strong>P18. Acquisition of V-V and N-N compounds in Japanese: From the viewpoint of the Compounding Parameter</strong>&lt;br&gt;Reiko Okabe (Nihon University) &amp; Miwa Isobe (Tokyo University of the Arts)</td>
<td><strong>P19. Wh-island effects in Korean scrambling constructions</strong>&lt;br&gt;Juyeon Cho (Seoul National University)</td>
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<td><strong>P20. Children's acquisition of sluicing constructions in Japanese</strong>&lt;br&gt;Akari Ohba (Ochanomizu University), Hiroyuki Shimada (Meiji Gakuin University) &amp; Kyoko Yamakoshi (Ochanomizu University)</td>
<td><strong>P21. Relative clause island effects: An experimental investigation of native and nonnative Japanese</strong>&lt;br&gt;Nozomi Tanaka (Indiana University) &amp; Bonnie D. Schwartz (University of Hawai‘i at Mānoa)</td>
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<td><strong>P21. Relative clause island effects: An experimental investigation of native and nonnative Japanese</strong>&lt;br&gt;Nozomi Tanaka (Indiana University) &amp; Bonnie D. Schwartz (University of Hawai‘i at Mānoa)</td>
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Invited Talk #1 (Day 1, 2:00-3:00 pm, October 12)

From tasty adjectives to succulent metaphors: What the language of food reveals

Natsuko Tsujimura
Indiana University

We often take for granted the language we speak every day to communicate with others, but language plays a vital role in our food culture: People can express their experiences with food—such as the taste—through a variety of words and expressions. In this light, the questions of how and where taste descriptors are used (and by whom) provide abundant opportunities for linguistic analysis. Furthermore, language users can benefit from examining the language of food from a linguistic perspective in order to understand why certain choices of words and phrases are more appealing to members of a community. Japanese culinary tradition and its language offer a particularly excellent context for a linguistic examination of how food relates to language and people in a culture whose food preparation and presentation has had an enormous influence not only on its own people, but on global food culture as well. Approaching the language of food in Japanese as an integral component of human interaction, this talk gives an overview of how the linguistic analysis of its form and meaning (e.g. loanwords, metaphors, and semantic fields) can contribute to a deeper understanding of the interface of food, language, and society.
Discourse participants in general endeavor to inform or persuade the audience by employing diverse strategies at all levels of language from diction to grammatical structures. This extensiveness of strategic language use suggests its frequent involvement in grammaticalization. Some of such discourse strategies may be manipulative even to the point of being insincere or false in analytical terms.

This talk introduces some of such cases in Korean, focusing on, among others, fake quotations, false promises, and feigned questions. These instances of seemingly deceitful language use are responsible for the emergence of diverse grammatical forms such as connectives, sentence-final particles, mood markers, and discourse markers.

It also addresses how similarly formed expressions, especially strategic questions, develop into grammatical forms across languages, and discusses their theoretical implications in grammaticalization. The talk supports the grammaticalizationist view that discourse is the locus of grammaticalization and thus discursive strategies are extensively involved in the emergence of grammatical forms.
Nominal-based nominalization

Masayoshi Shibatani and Sung-Yeo Chung
Rice University                Osaka University

Contrary to the widely held understandings that nominalization derives nouns from verbs or non-nominal categories (Payne 1997, Malchukov 2004, Yap et al. 2011, etc.), it actually applies to nouns as well (cf. speak > speaker, sing > singer, raid > (Oakland) Raiders; village > villager, left field > left fielder, 49 > (San Francisco) 49ers). This presentation argues for reanalyzing the genitive case or possessive forms (e.g. Latin rēgis ‘of the king’, English his/Ken’s, Japanese Ken no ‘Ken’s, Korean Yenghi-uy ‘Yenghi’s’, Chinese wǒ de ‘my/mine’) as nominal-based grammatical nominalizations. Evidence adduced for the proposal analysis includes the similarity and parallelism between nominal-based and verbal-based nominalizations in (i) formal marking patterns (Taketomi Ryukyuan [iija nu] ūnu ‘father’s’: [iija nu yumu] ūnu ‘one that father reads’; Korean [Yenghi-uy] kes ‘Yenghi’s’: [cikum pap-ul mek-nun] kes ‘one who is eating a meal now’), (ii) the usage patterns—both have NP-use and modification-use in parallel, and (iii) shared nominal denotation properties—both denote things and thing-like entities metonymically evoked by the base forms. Besides doing away with the category of the genitive case altogether, the proposed analysis of N-based nominalizations sheds light on the origins, developments, and true functions of nominalization markers (so-called Juntaijoshi) such as Japanese no, Ryukyan si, and Korean kes, which are actually not nominalizers, contrary to the popular analysis that they are.
Invited Talk #4 (Day 3, 1:00-2:00 pm, October 14)

Korean aspiration, Japanese voicing, and emergent features

Timothy J. Vance
National Institute for Japanese Language and Linguistics (Professor Emeritus)

Jeff Mielke (2008) argues that phonological features are emergent rather than innate. Thus, “Because features are abstract, there need not always be a connection between phonetics and phonological patterns, and features do not necessarily always refer to phonetically natural classes” (Mielke 2008:9). This view contrasts sharply with what Postal (1968:55–77) called the “naturalness condition,” according to which classes of segments that behave together phonologically must be definable in phonetic terms. Ladd (2014), among others, argues forcefully that the naturalness condition must be abandoned. This presentation will look at two phenomena that are difficult to reconcile with the naturalness condition but are compatible with the notion of emergent features.

First, as has been documented in many studies (e.g., Kim, Beddor and Horrocks), the laryngeal features of word-initial lax and aspirated stops in Seoul Korean have been shifting rather dramatically from a contrast between unaspirated and aspirated to a contrast between relatively weakly aspirated and relatively strongly aspirated, with low f0 in the immediately following vowel serving as an increasingly important cue for the lax stops. In the wake of the pioneering work by Lisker and Abramson (1964), it was widely accepted that there were three universally available VOT categories: lead (voiced), short lag (voiceless unaspirated), and long lag (voiceless aspirated). However, subsequent research in the half century since indicates Seoul Korean is just one many cases that do not fit comfortably into these putatively universal categories. On the other hand, the difference between lax and aspirated stops is represented systematically in Hangeul orthography, and the traditional labels (平音 평음 pyeong-eum and 濁音 격음 gyeog-eum) presumably denote psychologically real categories for native speakers. If features are emergent, the ongoing changes in phonetic realization need not disrupt the system and make it problematic for future generations of speakers. The two phonological classes can, of course, be characterized in phonetic terms throughout the progress of the change, although not with innate features. This phenomenon is thus a realltively minor problem for the naturalness condition.

Second, although rendaku in Tokyo Japanese is almost always described as a voicing process, because of well-understood diachronic changes, rendaku actually pairs voiced and voiceless consonants that in most cases differ in more than just the presence vs. absence of vocal-fold vibration (Vance 2015:397–398). On the other hand, the orthographic representation of rendaku in kana is straightforward and consistent. For example, the difference between the /h/[h] in hana ‘flower’ (はな) and the /b/[b] in beni+bana (べにばな) ‘safflower’ is represented in exactly the same way as the difference between /t/[t] in tana (たな) ‘shelf’ and /d/[d] in hon+dana (はんだな) ‘bookshelf’. There are traditional orthographic terms for syllables beginning with a voiceless obstruent (but excluding [p]) (清音 seion), and for syllables beginning with a voiced obstruent (but for some speakers including [n]) (濁音 dakuon), and there is little doubt that these categories are psychologically real for native speakers. If features are emergent, it is not necessarily problematic to posit paired categories for which diachronic changes have disrupted the parallelism in phonetic realization. This phenomenon is, however, a more serious challenge for the naturalness condition, since the categories cannot reasonably be construed as phonetically based.
References
In this talk, I present a series of experiments that investigated how grammatical variations affect sentence processing. In the first series of experiments, I show that despite the different surface word order (English: filler-gap dependency vs. Japanese, Korean and Chinese: gap-filler dependency), similar cognitive mechanisms underlie the processing of a long-distance dependency (Kwon, Kluender, Kuas, & Polinsky, 2013). In the second series of experiment, however, I discuss experimental results suggesting that individual languages differ in the relative weight that is assigned to different cues. For example, unlike English (Van Gompel & Liversedge, 2003), Korean places higher priority on discourse cues than on morpho-syntactic cues at least for pronoun resolution (Kwon & Sturt, 2013). In addition, different morphological cues seem to be associated with different levels of sensitivity. For example, while Korean speakers showed strong sensitivity to honorific agreement marker –si (Kwon & Sturt, 2016), plural marker –tul did not constrain online dependency formation. These findings suggest that while sentence processing is overall constrained by universal parsing mechanisms (Frazier & Fodor, 1978), sensitivity to different cues may be affected by surface grammatical features.
Frame Setters in Verbal Unagi-sentences in Japanese and Korean

Ante Kärrman
Lund University

This study reports a difference in acceptability of a certain type of verbal unagi-sentence (e.g. (3a–b)) in Japanese and Korean, which was found through an empirical survey conducted to test the acceptability of various unagi-sentences in Japanese and Korean. To account for this, it is proposed that a lone topic marker can only mark temporal and locative frame setters in Japanese, while the topic marker can additionally mark experiencer frame setters in Korean. Furthermore, to distinguish between aboutness topic and frame setter, a test comprised of exchanging the topic marker for the nominative case particle is proposed; only aboutness topics can be nominativized.

Unagi-sentences (e.g. (1)) have been a hotly debated topic for over half a century (e.g. Okutsu 1978; Kitahara 1989; Obana 2001; Yang 1996; Nam 2004). While they have so far been perceived as relating to the copula, similar context dependent utterances with apparent violation of selectional restrictions can be seen with verbal predicates as well (= (2a)).

The reason why (2a) is acceptable in both languages, while (3a–b) is only acceptable in Korean, is due to a difference in the nature of the topic-marked constituents. The topic marked constituent in (2a) is an aboutness topic, which passes the nominativization test (= (2b)), i.e. the comment in (2a) describes an attribute of the topic. The topic marked constituents in Korean (3a–b), on the other hand, are not aboutness topics, since they do not pass the nominativization test (= (4)). Instead, they are frame setters (Chafe 1976; Jacobs 2001; Krifka 2008), which set the frame in which the proposition is interpreted. More specifically, they are experiencer frame setters since their frames are represented by something that is experienced by someone. In (3a), the proposition ‘it is not raining’ is delimited by the frame na nun, which represents the location experienced by the topic marked entity. In (3b), the proposition ‘he is handsome’ is delimited by the frame represented by the opinion/experience of the frame setter na nun. These experiencer frame setters are therefore interpreted adverbially, as indicated by underlines in the translations. Since frame setters inherently presuppose alternative frames in which the proposition does not hold (Krifka 2008), (3a) contains the implicature that it is not raining somewhere else, and (3b) that in someone else’s opinion, he is not handsome. (3) shows that experiencer frame setters cannot be marked using the topic marker alone in Japanese.

Topic-marked temporal and locative frame setters, on the other hand, are possible in both languages (e.g. (5a)). Here, the same constraint of nominativization is found (= (5b)), since frame setters are not aboutness topics. The inability of frame setters to be nominativized does not stem from their inability to be focused; they can be focused using prosodic marking (= (6)). Instead, it is their inability to be subjects that prevents them from taking a nominative case marker. As frame setters are not subjects, the subjects of (3) and (5a) are merely realized as zero pronouns, and can appear explicitly in surface structure (= (7) & (8)).
(1) a. J: **boku wa unagi da**  
   K: **na nun cang.e ta**  
   ‘As for me, eel.’ ‘(lit.) I am an eel.’

(2) a. J: **konnyaku wa futora-nai**  
   K: **kon.yak un an ccinta**  
   konjac TOP get.fat-NEG  konjac TOP NEG get.fat  
   ‘Konjac doesn't make you fat.’ ‘(lit.) Konjac doesn’t get fat.’

   b. J: **konnyaku ga futora-nai**  
   K: **kon.yak i an ccinta**  
   konjac NOM get.fat-NEG  konjac NOM NEG get.fat  
   ‘Konjac doesn't make you fat.’

(3) a. ‘It’s raining where I am.’  
   J: **watashi wa futte i-nai**  
   K: **na nun an o-nuntey**  
   I TOP rain be-NEG  I TOP NEG rain-MOD  
   ‘It’s not raining where I am.’

   b. ‘He isn’t very handsome, is he?’  
   J: **watashi wa kakkoii yo**  
   K: **na nun cal sayngkyess-nuntey**  
   I TOP handsome MOD  I TOP well have.appearance-MOD  
   ‘He is handsome in my opinion.’

(4) K: **# nay ka cal sayngkyess-nuntey**  
   I NOM well have.appearance-MOD  
   ‘I think he is handsome’

(5) a. J: **kinoo wa soojishi-ta**  
   K: **ecey nun chengsohay-ss.e**  
   yesterday TOP clean-PST  
   ‘I cleaned yesterday.’

   b. J: **# kinoo ga soojishi-ta**  
   K: **# ecey ka chengsohay-ss.e**  
   yesterday NOM clean-PST  
   ‘I cleaned yesterday.’

(6) ‘When did you clean?’  
   J: **KINOO soojishi-ta**  
   K: **ECEY chengsohay-ss.e**  
   yesterday clean-PST  
   yesterday clean-PST  
   ‘I cleaned YESTERDAY.’

(7) K: **na nun pi ka an o-nuntey**  
   I TOP rain NOM NEG rain-MOD  
   ‘It’s not raining where I am.’

(8) J: **kinoo wa watashi ga soojishi-ta**  
   yesterday TOP I NOM clean-PST  
   ‘I cleaned yesterday.’

References:  
Particle Stranding Ellipsis in Japanese, String Deletion, and Argument Ellipsis

Yosuke Sato  
National University of Singapore

Masako Maeda  
Kyushu Institute of Technology

This paper develops an ellipsis analysis of particle stranding ellipsis (PSE) in Japanese as an alternative to a phase-theoretic analysis proposed by Sato (2012). We develop Shibata’s (2014) observations on PSE and argue that PSE arises through string-based deletion of an XP so that the left edge of an utterance aligns with the left edge of an intermediate phrase. We further present evidence to show that the ellipsis in question can take the form of Argument Ellipsis (AE).

PSE is illustrated in (1). Sato’s analysis, depicted in (2), is designed to account for three properties of PSE. First, PSE must target a sentence-initial topic element, assuming that the Top head constitutes the highest functional projection in the derivation of PSE. Second, PSE must be a root phenomenon because the specifier of TopP within an embedded clause would be Spelled-Out. Finally, PSE cannot apply more than once because the second application of PSE would target a non-sentence-initial topic.

Sato’s analysis has three problems, however. First, Sato and Ginsburg (2007) note that PSE occurs with many other non-topic particles such as case particles (3) and focus particles (4). Since Sato’s analysis is tailored for topic-based PSE, it may not be extended to those cases. Second, Shibata (2014) observes that PSE is not necessarily a root phenomenon (5). Finally, Shibata points out that the target of PSE exhibits strict linear sensitivity so that it cannot be preceded by any phonologically overt material such as interjections (6Ba). The contrast between (6Ba) and (6Bb) is difficult to explain under Sato’s theory since (6Bb), the input for (6Ba), can have the interjection licitly preceding the overt topic.

Shibata suggests that PSE is subject to the condition in (7), but leaves the generative mechanism behind PSE open. We propose that PSE results from what Mukai (2003) calls String Deletion, a phonological operation which applies to a continuous string at PF under surface identity with its previous antecedent, so that the left edge of an utterance aligns with the left edge of a focused particle. (1B) is then re-analyzed as in (8). Our analysis solves the problems noted above. First, the presence of PSE with many non-topic particles is automatically predicted by our analysis. Second, PSE may occur in an embedded clause since nothing prevents it so long as String Deletion meets (7). Finally, PSE exhibits linear sensitivity since the interjection would cause the violation of (7).

Having established a PF-deletion analysis of PSE, we present three arguments that the deletion involved in PSE may take the form of AE. Previous research has discovered three major properties: strict/sloppy ambiguities, the disjunctive reading, and the parallelism constraint on binder-bindee relations. Significantly, PSE shares those properties as AE. First, (9B) permits both strict and sloppy interpretations. Second, (10B) permits the disjunctive interpretation. Finally, PSE exhibits the parallelism constraint: in (11B), the PSE target can only be construed as being bound to its local subject Bill, but in (12B), it can refer to either the embedded subject or the matrix subject.
(1) Speaker A: Tanaka-kun-wa? Speaker B: wa-ne, kaisha-o yameta-yo.
   'How about Tanaka?' 'He quit his company.' (Hattori 1960:452)

(2) 

   John-NOM how did-Q NOM company-ACC quit-PRT
   'What did John do?' 'John quit his company.' (Goto 2012:103)

(4) A: Taroo-mo kita-no? B: mo ki-masita.
   Taro-also come-Q also come-POL.PAST
   'Did Taro also come?' 'Taro also came.' (Shibata 2014)

   John-TOP job-ACC quit whether-whether such rumor-NEG-exist
   'Though I don’t know whether he will quit his job, there is such a rumor.' (Shibata 2014)

   John-TOP come-Q well TOP come-POL.PAST well John-TOP come-POL.PAST
   'Will John come?' 'Well, he won’t come.’ ‘Well, he won’t come.’

(7) PSE is licensed in: [a [X ……]], where X is a stranded particle and is focused. (Shibata 2014)

(8) A: [DP Tanaka-kun-wa]? B: [DP Tanaka-kun]-wa ne kaisha-o yameta-yo.

(9) A: Zibun-no hahaoya-o Hanako-ga sonkeisiteiru-no?
   self-GEN mother-ACC Hanako-NOM respect-Q
   'Does Hanako respect self’s mother?’
   B: wa, tasika, Taro-ga sonkeisiteiru-yo. (strict/sloppy)
   TOP as I recall Taro-NOM respect-PRT
   'Taro respects self’s mother.’

    yesterday Taro or Ziro-NOM Kanako-ACC scolded-PRT
    'Yesterday, either Taro or Ziro scolded Kanako.’
   B. wa, Ayaka-mo sikatteita-yo. (Disjunctive reading)
    TOP Ayaka-also scolded-PRT
    'Either Taro or Ziro also scolded Ayaka.’

(11) A: Zibun-no kuruma-o John-ga aratta-no?
    self-GEN car-ACC John-NOM washed-Q
    'Did John1 wash self’s1 car?’
   B: wa Mary-ga [cp Bill-ga aratta-to] itteta-yo.
   TOP Mary-NOM Bill-NOM washed-COMP said-PRT
   'Mary1 said that Bill2 washed self’s1 1/2 car.’

(12) A: Zibun-no kuruma-o Sue-ga John-ga aratta-to itteta-no?
    self-GEN car-ACC Sue-NOM John-NOM washed-COMP said-Q
    'Did Sue1 say that John2 washed self’s1 1/2 car?’
   B: wa, tasika, Mary-ga Bill-ga aratta-to itteta-yo.
   TOP as I recall Mary-NOM Bill-NOM washed-COMP said-PRT
   'As I recall, Mary1 said that Bill2 washed self’s1 1/2 car.’

This study examines the interaction of the Japanese modal particle *darou* with different sentence types and intonation and proposes that *darou* is an entertain modality \( E \) in Ciardelli & Roelofsen’s inquisitive dynamic epistemic logic (IDEL) with a shiftable deictic agent \( \odot \).

**PARADIGM:** When *darou* occurs in a falling declarative (1), it expresses the speaker’s bias toward the embedded proposition. In a falling interrogative (2), the sentence acts as a self-addressing question. In a rising declarative (3), the sentence functions as a tag-question. A rising interrogative with *darou* in an out-of-blue context (4) is perceived as infelicitous, while it is acceptable in a quiz-show context (5) (*deshou* is a polite form of *darou*). The paradigm is summarized in (6).

**PROPOSAL:** *Darou* is an entertain modal \( E_\odot \) as defined in (7).

**DERIVING LFS:** *Darou* is a root-level modal. Unlike “normal” modals such as *nichigainai* ‘must’, it cannot occur inside an embedded question (8). Furthermore, the seat of knowledge is always the speaker unless it is embedded under attitude predicates (examples omitted for space reasons) or intonational morphemes (see below). The current paper implements this root-orientedness of *darou* by assigning an uninterpretable feature, \([\text{uROOT}]\) to the morpheme. The derivations and translations are given in (9) and (10), respectively. Note that *darou* can embed both a declarative \( p \) and an interrogative \(?p\).

\[ \uparrow \text{AS A DEICTIC SHIFTER:} \] Rising intonation \( \uparrow \) modifies the assignment \( g \) so that \( \odot \) is mapped to the addressee as in (11), (12) and (13) (see McCready, Shklovsky & Sudo, a.o.).

**SEMANTICS OF \( E \):** In IDEL, an information state is identified with a set of possible worlds, \( s \in \mathcal{W} \), just like standard epistemic logic. IDEL introduces another dimension which can characterize the issues that are entertained by the agents. An issue is defined as a set of information states: \( I \subseteq \wp(\mathcal{W}) \). Other relevant definitions and facts of the framework are given in (14)-(19). \( K_\alpha \phi \) is concurrent with the knowledge modality in standard epistemic logic (20). \( E_\alpha \phi \) states that once the issues entertained by \( \alpha \) are resolved, \( \phi \) will be supported (21). The important fact is that for a declarative \( \alpha \), \( E_\alpha \alpha \) is equivalent to \( K_\odot \alpha \) (22).

**Darou-UTTERANCE AS CCP:** In understanding the effects of *darou*-sentences, this paper employs the notion of context change potential (CCP) (Stalnaker, Heim). \( [\phi]^{M,g,w}_{\mathcal{I}} \) is a CCP with a presupposition (23). Let us derive the interpretations of the four combinations in (6). First, in the falling declarative (1), given (22), \( E_\odot p \equiv K_\odot p \) and \( g \) is unmodified, so we obtain a CCP (24a). After the update, \( p \) is established in the speaker’s information state. The falling interrogative (2) is interpreted as (24b). That is, \(?p\) is supported as soon as the issues of \( \text{SPKR} \) are resolved. In the rising declarative (3), \( E_\odot p \equiv K_\odot p \) and \( g \) is modified, so we obtain (24c). The speaker proposes to update the addressee’s information state, resulting in a meaning similar to English tag questions. Finally, in the rising interrogatives, \( g \) is modified, so we obtain (24d). The speaker attempts to control the addressee’s inquisitive state. This is a pragmatically loaded move, thus (4) is infelicitous, but in a quiz-show situation where the questioner/speaker indeed has such a control, it is acceptable (5).

**WHY IDEL?** Let us clarify the motivations to adopt IDEL to analyze *darou*. First, both *darou* and \( E \) can embed both a declarative \( p \) and an interrogative \(?p\). Second, it is straightforward to implement the shifting process from the default agent to the addressee, since IDEL models the inquisitive state of some agent. Third, *darou* appears to denote different modals depending on which clause type it embeds. Thanks to the semantics of IDEL, however, we can maintain the uniform semantics of *darou* as \( E_\odot \) and correctly derive \( K_\odot \) using the equivalence (22).

**CONCLUSION:** By defining *darou* as the entertain modality with the shiftable agent, \( E_\odot \), we account for the interaction of clause types and intonation and derive the interpretations of *darou*. 
Darou as an entertain modal with a shiftable deictic agent: an inquisitive approach

Yurie Hara
Waseda University/Hokkaido University

(1) John-ga kuru darou↓
Jonn-NOM come DAROU
‘John is coming, I bet./Probably, John is coming.’
(2) John-ga kuru darou ka↓
Jonn-NOM come DAROU Q
‘I wonder if John is coming.’
(3) John-ga kuru darou↑
Jonn-NOM come DAROU
‘John is coming, right?’
(4) #John-ga kuru darou ka↑
Jonn-NOM come DAROU Q
(5) Doitsu-no shuto-wa doko deshou ka↑
Germany-GEN capital-TOP where DAROU.POLITE Q
‘Where is the capital of Germany?’

<table>
<thead>
<tr>
<th>Declarative ((\varnothing_{\text{DECL}}))</th>
<th>Interrogative (ka_{\text{INTEROG}})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falling ↓</td>
<td>biased statement (‘I bet’)</td>
</tr>
<tr>
<td>Rising ↑</td>
<td>tag/confirmation Q (‘... right?’)</td>
</tr>
</tbody>
</table>

Proposal: Darou is an entertain modal which expresses epistemic issues associated to the deictic center \(\varnothing\):

\[ \text{darou} \sim E_\varnothing \]

(8) Emi-ga igirisu-ni itta \(\check{v}\) nichigainai\(*\) darou ka douka kiite mita.
‘I asked whether Emi must have left for England or not.’

\[[C_{\text{CP1}} \{C_{\text{CP2}} \text{ darou, } \{\text{ROOT}\} \} \{C_{\text{C2'}} \text{ TP } \{ t_i \varnothing_{\text{DECL}}/\text{ka}_{\text{INTEROG}} \} \} ] \text{ C1\{ROOT\}}\]

(10) a. declarative (\(\varnothing_{\text{DECL}}\)): \(p\text{-darou} \rightarrow E_\varnothing p\)  
b. interrogative (ka_{\text{INTEROG}}): \(p\text{-darou} \rightarrow E_\varnothing ?p\)

By default, the assignment function \(g\) maps the deictic variable \(\varnothing\) to the speaker, SPKR:

\[ g = [\varnothing \mapsto \text{SPKR}] \]

(12) \([\varphi]_{M,g} = [\varphi]_{M,g}[\varnothing \mapsto \text{ADDR}]\]

(13) a. Falling ↓: \(g(\varnothing) = \text{SPKR}\)  
b. Rising ↑: \(g^{\text{ADDR/\varnothing}}(\varnothing) = \text{ADDR}\)

(14) An inquisitive epistemic model is a tuple \(M = (\text{Var}, \mathcal{W}, V, g, \Sigma_A)\), where \(A\) is a set of agents, \(\text{Var}\) a set of variables, \(P\) a set of atomic sentences, \(\Pi\) a set of issues, \(V\) a valuation map, \(g: \text{Var} \rightarrow A\) an assignment function, and \(\Sigma_A\) a set of state maps \(\Sigma_A: \mathcal{W} \rightarrow \Pi\).

(15) a. An inquisitive state \(\Sigma_a(w)\) encodes the issues that are entertained by \(a\) at \(w\).

A state \(s\) supports (notation: \(=)\) an atomic declarative \(p\) when \(p\) is true in all worlds in \(s\).

(17) \(?p\) is an abbreviation of \(p \lor \neg p\): \((M, g, s) \models ?p \iff (M, g, s) \models p\) or \((M, g, s) \models \neg p\).

(18) The proposition expressed by a sentence \(\varphi: [\varphi]_{M,g} := \{s \in \mathcal{W}: (g, s) \models \varphi\}\).

(19) Two modal operators, \(K\) and \(E\), can embed both declaratives \(L_1\) and interrogatives \(L_2\): If \(\varphi \in L_o\) for \(\varnothing \in \{!, ?\}, a \in A\) and \(x \in \text{Var}\), then \(K_a \varphi, E_a \varphi, K_x \varphi, E_x \varphi \in L_i\).

(20) \((M, g, s) \models K_a \varphi \iff\) for any \(w \in s\), \((M, g, \sigma_a(w)) \models \varphi\)

(21) \((M, g, s) \models E_a \varphi \iff\) for any \(w \in s\) and \(t \in \Sigma_a(w), (M, g, t) \models \varphi\)

(22) For any declarative \(\alpha\), \(K_a \alpha \equiv E_a \alpha\)

(23) a. \([\varphi(C)]_{M,g,w} \) is defined only if \(C\) is an inquisitive state of agent \(g(\varnothing)\) at world \(w\).

b. If defined, \([\varphi]_{M,g,w} = \lambda C.C \cap [\varphi]_{M,g}\)

<table>
<thead>
<tr>
<th>Declarative darou (p)</th>
<th>Interrogative darou (?p)</th>
</tr>
</thead>
</table>
| \(\downarrow\) | \[K_{\text{SPKR}}p\]_{M,g,w} = \lambda C.C \cap [K_{\text{SPKR}}]_{M,g}  
| \(\uparrow\) | \[E_{\text{SPKR}}?p\]_{M,g,w} = \lambda C.C \cap [E_{\text{SPKR}}?p]_{M,g} |
| \(\uparrow\) | \[K_{\text{ADDR}}p\]_{M,g,w} = \lambda C.C \cap [K_{\text{ADDR}}]_{M,g,w}  
| \(\downarrow\) | \[E_{\text{ADDR}}?p\]_{M,g,w} = \lambda C.C \cap [E_{\text{ADDR}}?p]_{M,g,w} |

The perception of tonal clash in interrogative melodies of Tokyo Japanese: A cross-linguistic perspective

Mayuki Matsui¹, Hyun Kyung Hwang²

1 National Institute for Japanese Language and Linguistics/ Japan Society for the Promotion of Science
2 RIKEN Brain Science Institute

Prosody is in the face of physical-time pressures. For example, pitch contours can be modified in the context (i) where the duration of the tone bearing units (such as syllables and more) are too short due to fast speech rate (e.g., Cho and Flemming 2015 for Seoul Korean), and also, (ii) where tonal events are too dense to manifest themselves. The focus of the present study is the latter case, i.e., the case of so-called tonal clash resolution.

Previous studies have reported that languages resolve tonal clash in language-specific ways. For example, pitch contours can be compressed (e.g., Grønnum 1991 for Danish) or truncated (or, curtailment, Grice 1995 for Palermo Italian) in the tonal clash contexts, and that such contour modification strategies may result in either phonological neutralization or an apparent loss of the contrast. However, most of the previous studies have focused on the contour modification strategies in intonation languages, such as Russian (e.g., Odé 2005), where pitch functions exclusively to convey post-lexical information. In contrast, the present study demonstrates how tonal clash is resolved in the context where lexical pitch accent is potentially clashed with post-lexical boundary tone for the interrogative melody of Tokyo Japanese, where pitch functions to convey both lexical and post-lexical information (Pierrehumbert and Beckman 1988, Kubozono 1993 for review), which has non-trivial implications for the cross-linguistic/ typological studies of tonal clash resolution, accent-intonation interaction and neutralization in autosegmental-metrical theory (e.g., Goldsmith 1976, Gussenhoven 2004, Ladd 1996).

In Tokyo Japanese (TJ), it has been widely acknowledged that the contrast between final-accented and non-accented words are either neutralized or reduced, unless a particle follows (e.g., Vance 1995, Sugiyama 2012). Recently, however, Matsui and Hwang (2017) reported that some speakers produced distinct pitch patterns for the contrast even in a denser tonal context involving an interrogative boundary tone. Specifically, final-accented words together with a rising boundary tone (1a) exhibited greater pitch rise than non-accented ones in the same context (1b).

In this study, we examine whether this suspended lexical contrast is perceptually recoverable by listeners in the interrogative melody. Native listeners of TJ performed forced-choice identification task with “reiterant speech” (Warner 1997), where prosodic information was accessible for listeners but segmental information were minimized by substituting the segments with other. Prosodically distinctive renditions of three accent patterns (final-accented, non-accented, and initial-accented) were tested. The results showed that there were no significant differences in listeners’ response for final-accented and non-accented stimuli in the tonal clash context (Fig.1), while the listeners were correctly classified them in the non clash context (Fig. 2). This suggests that the subtle acoustic difference in the degree of rising signaled by the speaker does not play a role in the identification of final-accent and non-accent. Taken together, the results support the idea that the lexical accent distinction is perceptually neutralized in the context where final pitch accent is clashed with a rising boundary tone. Our findings for the accent-intonation interaction include that, when lexical prosody clashes with post-lexical prosody, the post-lexical prosody is privileged to be intact.
Examples

(1) a. hana? (“flower”, Final-accented)  
   H*L LH%

   b. hana? (“nose”, Non-accented)  
   LH%

Figures

Fig. 1: Overall percentage of each response type divided by stimulus accent type in tonal clash context.

Fig. 2: Overall percentage of each response type divided by stimulus accent type in non-clash context.

References


Denasalization of Moraic Nasals in Sino-Japanese
Kohei Nishimura
Iwaki Meisei University

This study argues for the psychological reality of morphological structures in Sino-Japanese (SJ) bimorphemic words (Tateishi 1990, Ito and Mester 1996, Kurisu 2000, etc.), on the basis of analyzing optional denasalization in moraic nasals. It is reported that a Japanese moraic nasal (conventionally described using “N” in the phonological study of Japanese) is phonetically realized as a nasalized semivowel in an intervocalic position (Vance 2008:97). Furthermore, the nasality of such a segment is often denasalized and pronounced as the latter half of a long vowel in some SJ bimorphemic words. For example, *ten-in* [teN.iN] (“clerk”) is often pronounced as [tee.iN], which is phonologically identical to *tee-in* (“capacity”), a word that does not originally contain a moraic nasal in the first morpheme.

A statistical survey of the *Corpus of Spontaneous Japanese* (CSJ, National Institute for Japanese Language 2008) shows that denasalization in SJ words is allowed only in limited phonological contexts. The phonology of SJ allows 575 phonologically distinct words with a CVN.CVN structure (Tateishi 1990). In the CSJ, 50 phonologically distinct words with this CV structure are found in 2264 tokens, and denasalization is observed in 15 words in 683 tokens. The great majority of denasalization is found in words with a CeN.iN structure, such as *gen-in* (“cause”) and *zen-in* (“everyone”). On the other hand, in words with a CeN.i or CeN.iCV structure, denasalization is not observed. This fact suggests that denasalization in SJ words must result in a quantitative change but not a complete deletion of nasality.

Another possible trigger of denasalization is the identity between two vowels. Denasalization occurs in several words with a CiN.iN or CeN.eN structure in the CSJ, such as *jin-in* (“personnel”) and *den-en* (“rural area”). However, the probability of denasalization in CeN.iN words is much higher than that in either of the other two structures, and the difference among them is statistically significant ($\chi^2=1.48899E-68$, $df=2$, $p<0.01$). This fact is compelling since there seems to be no motivation to block this alternation, at least in a CeN.eN structure. Words with a Cee.eN structure is not prohibited in SJ phonology—*tee.en* (“garden”) being an example of such an occurrence.

This study claims that the difference between CeN.iN and the other two structures is caused by the necessity to clarify the morphological boundary. If denasalization occurs in a CVN.VN word in which two vowels are identical, the morphological boundary becomes obscure; therefore, the phonological alternation is blocked to avoid such a situation. In other words, the moraic nasal serves to mark the morphological boundary. In a word with a CeN.iN structure, the morphological boundary is not obscure, even in its denasalized form.

If this view is accurate, the morphological information of SJ words, most of which are highly lexicalized, is psychologically real and still active for phonological grammar. This finding can provide an important key to understand the whole mechanism of SJ morphophonology.
References


“How about eggs?”: Action ascription in the family decision-making process during grocery shopping at a supermarket

Takeshi Hiramoto
Kyoto University

Makoto Hayashi
Nagoya University

The problem of how an action of the first component of a conversational sequence is recognized or “ascribed” (Levinson, 2013) by its recipient in the responsive position is an issue for participants as well as for analysts, especially when the first component takes an indirect or inexplicit form. We often observe such indirect or inexplicit forms in the interaction among members of tightly bounded social groups such as families, since their “shared experiences, background knowledge, and daily routines lead to the conventionalization of indirect but recurrent forms” (Ogiermann, 2015: 32). Using the methodology of Conversation Analysis, this study investigates how the actions performed by family members’ indirect or inexplicit utterances are ascribed by other family members in the responsive position and how this process of “action ascription” is used as an interactional resource to manage the practical tasks that the family members are confronted with in their everyday lives. We focus in particular on examining how family members negotiate among themselves in the course of decision-making on what to purchase during grocery shopping at a supermarket.

Detailed analysis shows that family members orient to each other’s deontic authority, i.e., the right to determine one’s own and others’ future actions (Stevanovic & Peräkylä, 2012), during the course of their decision-making on purchases at a supermarket. They do so by coordinating the utterance format used in the first move of their decision-making process and the subsequent action ascription by its recipient in the next turn. For example, the first move in decision-making can be ascribed by its recipient as such actions as “mentioning,” “proposing,” or “requesting.” While mentioning products does not exert much influence on purchase decision-making, proposing and requesting do. We found that when fathers and children initiate the decision-making process, they frequently use an abbreviated utterance format such as [category of the product] (e.g., Tamago? “Eggs?”) or [category of the product + topic particle wa] (e.g., Tamago wa?). In Excerpt 1, Father initiates a decision-making sequence by saying Sakana wa? “((How about)) fish?” (line 01). Utterances in these formats are routinely treated by mothers as “mere mentioning” of the product. This treatment is displayed by the mothers’ responses, in which they make their own decision as to whether to purchase the product or not. In Excerpt 1, Mother repeats sakana “fish” and produces the predicate iru “need” (line 03), thereby making the decision to purchase the fish mentioned by Father (“((We)) need fish.”). By treating the preceding utterances by fathers and children as doing “mere mentioning” and making their own decision, mothers claim their deontic authority.

On the other hand, when fathers and children produce an utterance in a sentential format (e.g., Tamago wa kau? “Shall we buy eggs?”), mothers routinely treat it as a “proposal” or a “request” by attributing it to the willingness of fathers and children to purchase the product (e.g. by saying “Do you want eggs?”). Excerpt 2 shows this point. In this excerpt, Father uses a sentential format (hutsuu ni kore akan no “Can’t ((we))) just ((buy)) this?”; line 01) to initiate a decision-making sequence. Mother responds by saying sore hoshii n? “((Do you)) want that one?” thereby treating Fathers’ utterance as a request. As these patterns show, family members constantly orient to their deontic authority to make a decision by coordinating the utterance format used in the first move of decision-making and the subsequent action ascription.
Data:

**Excerpt (1)**

01 Father : ->  Sakana wa?
   fish    TP
   ((How about)) fish?

02  

03 Mother : ->  Sakana iru
   fish need
   ((We)) need fish.

**Excerpt (2)**

01 Father : ->  Eh (.) hutsuu ni kore akan no ((while holding a cheese))
   eh   just   PT this   no good QP
   Eh (.) Can’t ((we)) just ((buy)) this?

02  

03 Mother : ->  Sore? (0.8) sore hoshii n?
   that that want QP
   That one? (0.8) ((Do you)) want that one?

Abbreviations used in the interlinear gloss:

QP question particle
TP topic particle
PT particle

References:


The Korean vocative interjection ya ‘hey’ beyond its summoning action

Mary Shin Kim
University of Hawaii at Manoa

Drawing on a conversation analysis framework and methodology, this study examines the unexplored functions of the Korean vocative interjection ya ‘hey’ for a variety of actions beyond summoning. Ya is classified as a vocative interjection used for calling or summoning an addressee of younger or same age, close in relation (Chang, 1996), as seen in (1).

However, an investigation of naturally occurring interactions shows that this account is incomplete; ya appears when there is no need for calling or summoning an addressee. For instance, ya occurs in dyadic telephone conversations where there is no ambiguity in understanding to whom the speaker is addressing and when the addressee is already engaged in an ongoing interaction, as seen in excerpt (2). Ya even appears in the middle of a speaker’s turn, as seen in (3). Despite its high frequency in unexpected occurrences in interaction, there does not appear to be any empirical research focusing on the diverse uses of ya. The paper aims to investigate what functions and actions ya performs beyond the act of summoning in interaction.

The analysis is based on 375 instances of ya found in audiotape data comprised of 32 different telephone calls (960 minutes) and 31 instances of ya found in videotape data of two face-to-face multi-party interactions among speakers of Korean (120 minutes).

The findings show that ya systematically occurs in turn-initial and turn-medial positions and serves important functions in the organization of turns and turn-taking. In a turn-initial position, speakers regularly use ya when initiating a new topic or action sequence, as seen in (2). Since the recipient is already engaged in the talk, ya does not function to summon, but rather serves to alert and prompt the recipient’s attention to a new topic or action sequence the speaker is about to launch. By beginning the turn with ya, the speaker signals that s/he is about to depart from the prior talk. Ya is thus a resource for the speaker to secure the recipient’s attention and, at the same time, to take the turn and floor.

In a turn-medial position, ya operates as a turn-constructional pivot, a resource for extending turns at talk (Walker, 2007; Clayman, 2012), as seen in (3). Ya can syntactically and prosodically belong to both the preceding and the subsequent units of talk, simultaneously completing a prior unit and launching the next. As a pivot, ya serves to extend a turn beyond a projected or incipient transition space, thus enabling the speaker to secure her turn and further elaborate her prior unit of talk. The speaker quickly provides elaboration on her prior talk with no gap since her talk is at odds with the recipient’s claim or stance, making her talk vulnerable to a recipient’s challenge.

As the findings show, ya plays important roles in the organization of turns and turn-taking; speakers can initiate or extend their turns at talk in situations where they may be at odds or in competition with other talk in topic, action, or stance. These multifaceted functions of ya can be explained by its original summoning property, which is the root of these other functions. Ya’s syntactically optional character also enables it to appear in various positions. This study hopes to contribute to uncovering the diverse functions ya and expanding our understanding of the usages and roles of interjections in interactions.
Excerpt (1)

'Hey, let’s go together.'

Excerpt (2)

1 Mina: caseyhi alapwa-ya-ci.[hh hh]
in:detail find:out-must-COMM
'I must find out (the directions to your place) in detail. hh'

2 Bora: [ung ung]
'Yeah, yeah.'

3 Mina: ya pwumonim-un cal kyeysi-nya?
ya parents-TOP well do-Q
'YA, are your parents well?'

4 Bora: ung.
'Yes.'

A shift of topic from Mina’s plan to visit Bora’s place (lines 1-2) to Mina’s inquiry of Bora’s parents’ well-being (lines 3-4).

Excerpt (3)

1 Mia: han tal-ey phalsip pwul.
one month-per eighty dollar
'It’s eight dollars a month.'

cheap-NML-either not-and expensive-NML-either not-and be:so-UNASSIM
'It’s neither cheap nor expensive.'

3 Mia: pissa-ci ya hankwuk-ey pihaysen pissa-ci.
expensive-COMM YA Korean-compared:to expensive-COMM
'It's expensive YA compared to Korea, it’s expensive.'

4 Ara: hankwuk-ey pihaysen pissa-ntey,
Korean-compared:to expensive-but
'Compared to Korea, it’s expensive, but,'

References

Reporting past experience with the immediate perception marker -ney in Korean conversation

Hye Young Choi Smith
University of Hawai‘i at Mānoa

This paper aims to explore pragmatic expansion of the Korean sentence ender -ney in reporting the speaker’s past perception, using a conversation analytic framework. A number of studies have contributed to establishment of the semantic and pragmatic profiles of -ney, and there is a general agreement among researchers on the essential feature of -ney: it conveys “factual realization” of “newly perceived information” (Lee, 1991:434) and signals “a consciousness shift within the speaker” (Strauss, 2005:437), as in (1).

It is widely accepted that -ney expresses direct evidentiality such as the speaker’s immediate sensory perception or firsthand experience conveying surprise or counter-expectation, although the typological categorization of -ney still remains as an issue due to its multifaceted nature. Pragmatic functions of -ney have been relatively underexplored, and among the littlest known, assessment is counted as the a major function of -ney (Kim, 2004; Strauss, 2005). However, little attention has been paid to a “reporting” function of -ney, thus this study purports to provide the ground on which more in-depth discussions on the pragmatic expansion of -ney can be built.

In order to investigate the pragmatic contexts where -ney is deployed, I analyzed approximately 600 minutes of Korean telephone conversations from Linguistic Data Consortium (LDC) corpus using conversation analytic methods. Among 191 tokens of -ney, 35 were used in reporting activities. The results showed that -ney is used for a pragmatic strategy to reenact the speaker’s past perception in reporting/storytelling activities. By adopting this strategy, the speaker can accomplish cognitive and pragmatic effects such as (a) retrieving a past perception and sharing his/her emotional stance with the interlocutor; (b) describing the reported event as uncontrollable and claiming a reduced accountability for it; (c) proffering a conclusion or summary of the reported event.

In (2), Sun reports on her lazy day to her friend by reenacting her past sensory experience (line 3). By verbally demonstrating her past reaction with a moderately rising tone, Sun displays her surprise to the unexpected information and invites Mee to attend to noteworthiness of the perceived event. In (3), Jun’s story is initiated by telling a result of the story: he is hungover from drinking too much yesterday (lines 1-2). Jun’s report summary of his having a drinking party (lines 6-7) is conveyed with the sentence ender -ney, adopting a distanced and self-observing stance, implying that overdrinking was beyond his control. I suggest that a semantic feature of -ney (signaling ‘surprise’) provides here a background for the upcoming information, how astonishing amount of vodka he drank with his friends, and its noteworthiness and ridiculousness that is also portrayed in the expression kkutcangul nayssta “we drained it” (lines 9-10).

The uses of -ney in reporting perception exemplified in this paper differ from the general profile of -ney (used in signalling immediate, present perception) in that it is used strategically to report a past event and the speaker’s cognitive/emotional stance in a present voice, as if the speaker is still in the effect of the past perception. Therefore, I propose that pragmatic context expansion which caused atypical uses of -ney needs more attention in future research.
(1) Pap-i cham masiss-ney.
   rice-NOM very tasty-ney
   “The rice is very tasty!”

(2)
01 Sun: ya =na:: cinca hhh ya- na- nauy onul haiwu-nun mwe- hey I really hhh hey I my today day-TOP what
02 mwe-n-ci a-nyač what-DISJ know-INTERR
   “Really, hey, do you know what my day was like today?”
03 → ca-ko ilena-ss-teni:: yeltwu-si-neyč sleep-and wake-up-PST-RETRO twelve-o’clock-ney
   “I woke up, and it is 12 o’clock!”
04 Mee: [hhh]
05 Sun: [hhh] >kulayse< hh hhh so hh
   “So,”
06 Sun: a: yeltwu-si-kwuna:: hhh sin:nakey mek-ko: hh ah twelve-o’clock-UNASSIM hhh intensely eat-and hh
   “(I thought) Oh, it’s 12 o’clock, and I binge ate,”

(3)
01 Jun: na-nun ecey ↑ swul-ul >nemwu manhi masy-ekacko< I-TOP yesterday alcohol-TOP too much drink-so
02 onul opaitu hay-ss-ta. today throw:up do-PST-DECL
   “Yeah, I drank too much yesterday, so I threw up today.”
03 Pyo: mwe ha-n|takoč what do-for
   “What for?”
04 Jun: ecey ku- mweya San Francisco-eyse wa-ss-canha:: yesterday that DM San Francisco-from come-PST-you.know
   “Yesterday, (my friends) came from SF, you know.”
05 Pyo: ung:
   “Yeah.”
06 Jun: >kulaykaciko< ku- >ku-ma-tul-hako tto< so that that.dude-PL-with DM
07 → swul han can-ul hay-ss-ney: alcohol one shop-TOP do-PST-ney
   “So I had a drink with them.”
08 Pyo: ung.
   “Yeah.”
09 Jun: ku potukha il gallon-ul sey myeng-ise the vodka one gallon-TOP three people-together
10 kkutcang-ul nay-ss-ta ecey. the:end-TOP make-PST-DECL yesterday
   “Three of us drained a gallon of vodka yesterday.”

References
On the anaphoric use of demonstratives in Miyakoan
Tomohide Kinuhata† & Yuka Hayashi‡
†Fukuoka University; ‡JSPS/NINJAL

Although there have been some descriptive studies on the deictic use of some dialects (Shibata 1980, Uchima 1984, Ogino 2009), little attention has been paid in Ryukyuan linguistics to the anaphoric use of demonstratives, which, we argue in this presentation, shows striking differences between dialects of Miyakoan (cf. Figure 1).

In the experimental survey, we requested informants to translate Japanese sentences into their dialects and asked the naturalness of the use of demonstratives such as ku-, u- and ka-. The artificial examples used in the research are differentiated based on whether (I) the object referred to by demonstratives is mutually known by the interlocutors and (II) is distant from the speaker. Both criteria are further divided into three patterns respectively in composing examples: (I) into the case where the object is known to both the speaker and the addressee (Ks&a), known only to the speaker (Ks) and known only to the addressee (Ka); (II) into the case where the object is distal from the speaker (dis), proximal to the speaker (prox) and not existing in reality (notE). Those 3×3 patterns amount to 9 patterns of examples but we only used 8 patterns of them because it is not easy to imagine an object which is nonexistent but mutually known by the interlocutors. For each of these 8 patterns, we constructed 4 sentences, which means that 32 sentences were presented to each informant in the survey. Examples which represent the above 8 patterns are given in (1)-(8) with the sentences obtained from an informant of the Karimata dialect (female, born in 1933).

Table 1 and Table 2 summarize the results of the researchs conducted in two different places: Table 1 for the Karimata and Table 2 for the Shinzato dialect, whose locations are given in Figure 1. The cells in the tables are shaded according to the use of demonstratives: Dark gray indicates the preference for the ka-series, white the preference for the u-series and light gray the use of both forms. Table 1 clearly shows that when an object exists apart from the speaker, i.e. in a distant location or in a non-real world, the informant uses the ka-series, and when it exists near the speaker, the use of the u-series becomes possible. On the contrary, in Table 2 the u-series can be used to refer to a remote object as well as a close one.

We argue that the difference of anaphoric uses between Karimata and Shinzato can be attributed to the number of demonstratives that those dialects have: While Shinzato has three series ku-, u- and ka-, Karimata only has two u- and ka-. The anaphoric use of Karimata can be considered as a natural extension of the deictic use, whereas the u-series in Shinzato acquired the anaphoric use on its own. It is well known that in Japanese the a-series refers to mutually known objects, i.e. Ks&a, and the so-series unshared objects, Ks and Ka (Kuno (1973) among others). This is a pattern different from Table 1 and Table 2, which means that the transition between them occurred independently of Japanese.
(1) We ate a dinner in Kyoto, didn’t we? Let’s do it again. \(K_{s\&a}, dis\)
\(\text{Kuni futun }\{\text{kari/}^*\text{uri}\}=u \text{ fai mii busi-kan ra.}\)
\(\text{once. more } \{k/- u\}=\text{ACC eat try OPT-ACOP DM}\)

(2) There is a cafe named Uesuyaa in Nishizato. I’ll wait for you at that cafe.
\(K_s, dis\)
\(\{kama/^*\text{uma}\}=n \text{ ura-di=siba.}\)
\(\{k/- u\}=\text{LOC exist-VOL=CSL}\)

(3) ‘I met a person named Shimoji yesterday.’ ‘What was that person like?’ \(K_a, dis\)
\(\{kari/^*\text{uri}\}=a \text{ nooci=nu putu=du a-tai?}\)
\(\{k/- u\}=\text{TOP how=GEN person=FOC COP-PST}\)

(4) As you know, the store in front of this house sells tempura. It is delicious.
\(K_{s\&a}, prox\)
\(\{^*\text{kama}/\text{uma}\}=n \text{ tempura=}a \text{ ati mma-an ra.}\)
\(\{k/- u\}=\text{GEN tempura=}\text{TOP very delicious=ACOP DM}\)

(5) I got a testimonial a long ago. It is now set at the entrance.
\(K_s, prox\)
\(\{^*\text{kana}/\text{unu}\} \text{ sjoojoo=ju uma=n kanzarui.}\)
\(\{k/- u\} \text{ testimonial=ACC there=LOC set CONT}\)

(6) ‘I made a doll in this house yesterday. ‘Where do you keep it?’ \(K_a, prox\)
\(\{^*\text{kana}/\text{unu}\} \text{ ningjoo=ja ndza=n=du ariba?}\)
\(\{k/- u\} \text{ doll=}\text{TOP where=LOC=FOC exist}=Q\)

(7) I saw an old woman in my dream yesterday. That person was a cripple. \(K_s, not E\)
\(\{kari/^*\text{uri}\}=a \text{ pagi=nu=du jamii u-tai=djaa.}\)
\(\{k/- u\}=\text{TOP leg=}\text{NOM=FOC be.injured CONT-PST=EVID}\)

(8) ‘A boy in my dream gave me a dumpling.’ ‘Did you eat it?’ \(K_a, not E\)
\(\text{vva=a }\{\text{kari/}^*\text{uri}\}=u=du \text{ fai?}\)
\(\text{you=}\text{TOP }\{k/- u\}=\text{ACC=FOC eat=PST}\)


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Table 1 Karimata dialect (female, 1933)  Table 2 Shinzato dialect (male, 1927)  Table 3 Correspondence with examples

For each cell, 4 sentences are given.

- \(ka\): In not less than 3 sentences, \(ka\) is preferred.
- \(u\): In not less than 3 sentences, \(u\) is preferred.
- \(ka/u\): Other cases

Dialects in Diaspora or Diaspora Dialects: Distinguishing Transplanted Varieties of Korean

Despite very occasional recognition as varieties in their own right (e.g. King and Yeon 1992; Jin 2012), the varieties of Korean spoken outside the Korean peninsula and its adjoining islands are frequently equated with those which are spoken there (see Lee 2016 for a recent example). The current study focuses on the varieties of Korean spoken throughout Central Asia (Koryo Mar – KM) and in China’s Yanbian Korean Autonomous Prefecture (Vernacular Yanbian Korean – VYK), both of which have been equated with the varieties of Hamgyeong Province (Pak 2005; Kwak 2011). While historical and linguistic evidence supports the diachronic link between the Korean communities of these regions and the North East of the Korean peninsula, this paper demonstrates that the continued designation of KM and VYK using the nomenclature of traditional peninsula dialects confuses linguistic heritage with synchronic linguistic reality.

Here, we test the implicit claim made by designating VYK and KM as “Hamgyeong Dialect” or “Yukchin Dialect”, i.e. that these varieties are ‘the same dialect’ and thus may not be systematically distinguished. Scarcity of secondary sources and the difficulty of gathering data within the DPRK preclude a direct comparison of these particular transplanted and peninsula varieties, however direct comparison of VYK and KM is possible. For this purpose, corpora of these varieties, consisting of semi-structured interviews and observed speech events collected from 12 KM-speakers and 12 VYK-speakers, were created. From the transcription of this primary data, it is clear that a large number of features which have been identified as characteristic of each of these varieties, for example the phonological reduction of topic particles (Lee et al. 2001: 38; Jeong 2010: 57-59), in fact appear variably in both. As a supplement to this impressionistic analysis, and to determine whether the speech of these consultants differs systematically, we employ statistical tests. This required the creation of a top-down feature catalogue (Wolk and Szmrecsanyi 2016) comprised of thirty three variables selected on the basis of prior descriptions of the transplanted varieties and examination of the corpora. The data for each speaker was coded according to the presence or absence of each feature, which produced a distance matrix suitable for Cluster Analysis (CA) and Categorical Principal Components Analysis (CATPCA – Meulman, Heiser and SPSS 2004), techniques that have been called quantitative equivalents of traditional dialect identification and the establishment of isogloss bundles, respectively (Grieve et al. 2011).

The CA revealed that the speakers could be unambiguously sorted into two clusters corresponding to their membership of the KM or VYK speaking community. From the CATPCA, it was possible to identify a set of thirteen features which were particularly influential in this clustering. Of these, seven (for example, the adoption of the subject particle -ka and realisation of /c/ as an alveolar affricate) are associated with the speech of the VYK consultants and six (for example, the retention of archaic demonstrative pronouns of place and the realisation of /l/ as a trill) are associated with the speech of the KM consultants.

The central finding of this paper is that, on the basis of this data, KM and VYK may be considered systematically and regularly distinct from one another, which adds weight to the argument that new Korean dialects are emerging in transplanted contexts (Silva 2010; Nagy 2016). This paper also makes a contribution to the on-going expansion of Korean linguistics to cover the previously much understudied international varieties of the language.
References


Spatial Frames of Reference in Miyako: Digging into Whorfian linguistic relativity

Kenan Celik\textsuperscript{1}, Yukinori Takubo\textsuperscript{2}, Rafael Núñez\textsuperscript{3}

\textsuperscript{1}Kyoto University, \textsuperscript{2}NINJAL, \textsuperscript{3}University of California, San Diego

The Whorf-Sapir linguistic relativity hypothesis states that there are fundamental and pervasive influences of language on thought [1]. Recently, spatial frames of reference have been used to investigate this hypothesis [2]. While some linguistic groups have been found to prefer relative frames of reference (RFR; e.g., ‘left’ and ‘right’) to describe or think about relative positions of tabletop objects, others prefer absolute frames of reference (AFR; ‘e.g., ‘north’, ‘south’) [3]. A common interpretation of these results is that language plays a significant role in structuring fundamental domains (e.g., space) at a neurocognitive level [4]. But, what happens with bilingual speakers with clashing absolute/relative frames of reference?

Speakers of Japanese have been reported to clearly prefer RFRs [5], while a few ethnographic descriptions have mentioned that bilingual speakers of Japanese and Okinawan languages often rely on AFRs [6]. In this study we experimentally investigate the spatial frames of reference used by bilingual speakers of Miyako & Japanese and by monolingual speakers of Japanese from Tokyo.

We studied three groups of 8 participants each (13 men & 11 women, controlled for age), Miyako speakers speaking in Miyako (MM), Miyako speakers speaking in Japanese (MJ), and Japanese speakers (JJ). Working in dyads, each participant was asked to describe several arrays of figurines hidden to his/her partner, who was asked to reproduce the array according to the descriptions (procedure and materials from [7]).

We analyzed the first frame of reference (taken to be a reliable indicator of a spontaneous construal) chosen by participants in each of the 4 trials. Results show that when Japanese was spoken, it strongly induced a RFR in JJ and MJ speakers. JJ participants never picked an AFR, and only two MJ participants occasionally picked an AFR (no difference was found between the proportions of AFRs per participant in these two groups, t(6)=1.4; n.s.). An ANOVA comparing the three groups (Fig. 1), however, was highly significant (F(2,21) = 23.1; p<.0001; eta squared = 0.69), indicating that Miyako speakers speaking in Miyako, despite being bilinguals, manifest a tangible preference for AFRs.

Our experimental results show that participants taken from a population of Miyako-Japanese bilingual speakers, tend to choose significantly more often AFR terms over RFR terms when speaking Miyako than when speaking Japanese. Because both languages possess full-blown lexical and grammatical resources for absolute and relative encoding, our findings call into question both, a strong and a weak version of the Whorf-Sapir hypothesis that it is the structure of languages that determines specific modes of thought. The preference of AFR by Miyako speakers while speaking Miyako, but not when speaking Japanese, seems to be due, at least in part, to cultural practices realized in the act of communicating in Miyako, rather than to cognitive restructuring driven by language proper.
References:


Figure 1:

Preferred frame of reference in three groups of speakers
(percentage per participant’s first choice)

Example of linguistic manifestations of spatial frames of reference:

1. `hai atikaraa tuŋ=nu=du nisŋ=kai futsŋ citti ʑ=nu kata=n`
   
   Right, so the rooster is facing North, and it is (standing) on the west side. (MM speaker, facing South, describing a rooster figurine located on the right from the perspective of the participant and facing the participant)

2. `hidari+gawa=ni niwatori ce hidari=no hoo=o muiemasu`

   On the left side (there is) the chicken, it is facing left. (JJ speaker, facing South, describing a rooster figurine located on the left, facing left from the perspective of the participant)

Abbreviations: ACC Accusative, ALL Allative, DAT Dative, FIL Filler, FOC Focus, GEN Genitive, NOM Nominative, POL Polite
## Integrating Analysis and Pedagogy in the Revitalization of Jejueo

William O’Grady | Changyong Yang | Sejung Yang  
University of Hawai‘i | Jeju National University | University of Hawai‘i

Language revitalization calls for the coordination of multiple research tracks, including orthographic design, phonological and morphological analysis, and curriculum development. We report here on how these tracks have come together in attempts to preserve and revitalize Jejueo, the language of Korea’s Jeju Island.

Jejueo is written using the same script (*Hangul*) that is used for Korean. Crucially, however, the traditional orthographic rules for Jejueo differ from those for Korean, favoring spellings that group letters into phonetic syllables rather than into morphemes. Thus to take a very simple example, the past tense form of the verb-plus-auxiliary compound *ka-po* (가보) ‘try to go’ is written as in (1), reflecting the boundaries between the word’s phonetic syllables. In contrast, the cognate form in Korean is written as in (2), reflecting the word-internal morphological boundaries and separating the past tense suffix `-ess (سى)` [= Jejueo `-es (سى)`] from the sentence ender `-e (سى)` [identical to its Jejueo counterpart]. (In these and all other examples, dots are used in the Romanization to indicate the way in which letters are clustered into chunks in the *Hangul* spelling.)

In cases such as this, where close cognates make the two languages very similar in form and meaning, the morphological structure of the Jejueo word is likely to be evident, regardless of how it is written. However, matters become much more complicated in the many verbal patterns that contain morphemes unique to Jejueo, as illustrated in (3) – (5). In such cases, syllable-based spelling has led some linguists to propose analyses that posit the existence of morphemes such as *eom, seon, sin, nu,* and *nya* (see, for example, Choi 1985, Lee 1957, and Sung 1975, among others)

However, analysis of a broader range of data suggests that such analyses are wrong, and that the morphemes in question are actually `-ams, en, in, nun, and ya,* respectively, as shown by their occurrence in this form (with the same meaning) in contexts where morpheme boundaries are independently identifiable. For the sake of exposition, we give just one example of each in (3’) – (5’), corresponding to (3) – (5), respectively.

In our presentation, we will consider the consequences of these findings for two major issues in Jejueo revitalization. First, we consider the ongoing debate over the selection of an orthography (on which there is still no consensus, other than that it should involve the *Hangul* script). Second, we will examine the role of orthography in language pedagogy, especially in light of recent findings that virtually all revitalization programs in the world now see school-based programs as the best strategy for language revitalization (Perez-Baez, Vogel & Okura 2017). Drawing on the experience of other communities, especially Hawaiian, and on our own analyses of Jejueo verbal morphology, we argue for the linguistic and pedagogical advantages of an orthography that maximizes the transparency of morphological boundaries, even if this forces a departure from phonetic transparency at the level of the syllable.
Abbrev: CONT = continuative; PST = past; PRS = present; Q = question; SE = sentence ender; dots are used to represent the clustering of letters in the orthography.

(1) Syllable-based spelling for a past tense form in Jejueo:
ka.po.a.se (가보아서)
try go PST SE ‘tried to go’

(2) Morpheme-based spelling for the Korean cognate:
ka.po.as.e (가보앗어)
go-try-PST-SE ‘tried to go’

Morphemes inferred from the orthography in other cases: am, sen, sin, nu, nya

(3) ka.po.am.seon.key (가보압선계)
go try CONT PST SE ‘I saw him/her trying to go’

(4) ka.po.am.sin.dido (가보압신디도)
go try CONT PRS although ‘although s/he is trying to go’

(5) ka.po.nu.nya (가보늘나)
go try PRS SE ‘Is s/he trying to go?’

Actual morphemes yielded by morphological analysis: ams, en, in, nun, ya

(3’) ka.po.ams.en.key (가보압언계)
go-try-CONT-PST-SE ‘I saw him/her trying to go’

Evidence that -ams is a morpheme: ka.po.ams.cwu (가보압주)
go-try-CONT-SE ‘S/he is trying to go.’

Evidence that -en is a morpheme: cisul mek-en (익언) ‘ate’
potato eat-PST ‘S/he ate a potato.’

(4’) ka.po.ams.in-dido (가보압인디도)
go-try-CONT-PRS-ALTHOUGH ‘although s/he is trying to go’

Evidence that -in is a morpheme: taws-in-dido (돗인디도)
warm-PRS-although ‘although it is warm’

(5’) ka-nun-ya (가논야)
go-PRS-Q ‘Is s/he going?’

Evidence that -nun is a morpheme: ka-po-nun-ka (가보눈가) ‘Is s/he trying to go?’
go-try-PRS-Q ‘Does s/he try to go?’

Evidence that -ya is a morpheme: ka-po-as-ya? (가보압야)
go-try-PST-Q ‘Has s/he tried to go?’

O13.

An eye-tracking study on the role of prosody in phonological inferencing: a case of post-obtruent tensing rule in Korean

Sahyang Kim\textsuperscript{a}, Holger Mitterer\textsuperscript{b}, Taehong Cho\textsuperscript{c}

Hongik University, Seoul\textsuperscript{a}, University of Malta, Malta\textsuperscript{b}, Hanyang University, Seoul\textsuperscript{c}

Phonological rules often change the surface form of segments, which may create temporal ambiguity. Such an ambiguity may be disambiguated by fine phonetic details that may signal underlying forms \cite{1},\cite{2}. Recently, it has been suggested that speech perception may be modulated by prosodic structure \cite{3},\cite{4},\cite{5}, suggesting that the same acoustic input may provide differential degrees of lexical support depending on the computed prosodic structure. The present study builds on this assumption by testing the perceptual effect of a Post-Obtruent Tensing Rule (henceforth POT) as a function of prosodic structure. Korean POT changes a lenis into a fortis consonant after an obstruent. POT is known to be modulated by prosodic structure, being applied within, but not across, an Accental Phrase (AP \cite{6}). For example, \textit{kachi} (꼬치, \textit{‘value’}) may sound ambiguously like \textit{k*achi} (꼬치, \textit{‘magpie’}) after an obstruent if produced within an AP. In order to explore the perceptual role of such an interplay between phonology and prosodic structure, the present study employed an eye-tracking experiment and tested how the recognition of ambiguity due to POT would be modulated by prosodic structure.

Three eye-tracking experiments were performed. Target words were 24 bisyllabic minimal pairs differed only in terms of the word onset (either \textit{kachi} or \textit{k*achi}). The target was in either a tensifying (**bora-sek # /k/achi**) produce as [k*]achi) or nontensifying (**yeonnoraŋ # /k/achi**) context in different prosodic boundaries. Listeners were instructed to click on a shape (e.g., triangle) above a word on the screen. The shape presented after the target in the auditory carrier sentence was the disambiguating cue in a tensifying context. In Exp. 1, the preceding prosodic context before the target was either an IP or a Wd (IP-internal) boundary. Across an IP boundary where POT is not applied, listeners looked at the intended target. In the Wd condition where POT is applied, listeners were faithful to the surface form and reverted to the intended signal only when the following shape directed as such. Since it was difficult to tell whether they accepted a (tensified) lax-initial word as target by phonological inference or whether they simply followed the direction even when they thought there was a mismatch between a tensified lax (phonetically tense) stimulus and what they were supposed to click, the following two experiments were performed with ‘no answer’ option on which listeners could click if they thought there was no word on the screen that matched the auditory stimulus. Exp 2 which tested targets in Wd boundary revealed that listeners accepted lax targets more often with surface tense stimuli in tensifying than in nontensifying contexts, showing a clear effect of phonological inference. Exp 3 which tested targets in AP boundary showed that the phonological inference effect was weakened by the presence of an AP boundary, and that the boundary effect was found in relatively later time windows. Taken together, results showed a detailed picture of how temporary ambiguity due to phonological alternation caused by POT in Korean was processed by listeners by making reference to prosodic structure.
References


What accounts for adoptees’ advantages in birth-language relearning?

Jiyoun Choi

Hanyang Phonetics and Psycholinguistics Lab, Hanyang University, Seoul, Korea

International adoptees who moved to another country where a different language is used, nevertheless rapidly acquire the new language [1,2] and, without further input, forget their birth language [3,4]. After decades since adoption, these individuals report no conscious birth-language memory [5]. Nonetheless, there is converging evidence that the birth-language knowledge acquired early on has been retained and can help the adoptees to relearn the birth-language contrasts faster than control learners without prior experience in that language [6-8]. In [8], Korean adoptees in the Netherlands were trained to identify Korean (fortis-lenis-aspirated) stops [9], were compared with Dutch controls who received the same training, and showed a more rapid learning than the controls. However, it is still plausible to assume that the relearning benefits may not involve lasting birth-language knowledge but may arise from adoptees’ better ability to learn language sounds in general. Adoptees’ unusual linguistic experience – to have switched from one to another (quite different) sound system in early months – may strengthen their ability to learn phonemic contrasts in general, not just birth-language contrasts in particular. If this is the case, then the adoptees’ rapid learning of birth-language contrasts should generalize to novel, previously unheard language sounds. Here, with the same participants as in [8], we examine whether the Korean adoptees may outperform the controls also on learning Japanese sounds that they have never been exposed to in their life.

Twenty-nine adoptees and 29 controls were trained to identify a Japanese length distinction with feedback. The distinction consisted of an initial short vowel plus a long consonant (henceforth: Geminate), an initial short vowel plus a short consonant (Singleton), and an initial long vowel plus a short consonant (LongVowel), as in [af:a]-[afa]-[a:fa]. This distinction is unlike any Dutch or Korean distinctions, and has been shown to be difficult for Dutch listeners [10]. The same identification without feedback was tested before, during, and after the training. Note that the participants were led to believe they would be trained on Korean, to control any effects that could be caused by knowing it was not Korean.

An ANOVA on accuracy, comparing Group (adoptees/controls), Test (pre/midway/final), and Target (Geminate/Singleton/LongVowel), revealed no main effect of Group and no Group-Test or Group-Test-Target interaction; planned comparisons confirmed no group difference on any test. The results thus showed that the adoptees and controls performed similarly on all tests; nowhere did adoptees show any advantage. This evidence argues against any suggestion that the adoptees might possess an enriched ability to learn language sounds in general, as a result of their early exposure to multiple languages. It also argues against any suggestion that the adoptee advantage on Korean contrasts in [8] might just have been due to a favorable attitude on their part to participation in training on their birth-language; after all, here too they thought that the (Japanese) contrasts were Korean. Thus, the best explanation for adoptee advantages for birth-language relearning [6-8] remains one: birth-language knowledge acquired before adoption is unconsciously retained, and can be drawn upon to facilitate such relearning.
References

On the grammaticalization of voice markers: Some evidence from Korean -i and -eci constructions

Mikyung Ahn & Foong Ha Yap
Hankuk University of Foreign Studies & Chinese University of Hong Kong, Shenzhen

This paper examines the relationship between causative, passive and middle constructions, focusing in particular on their direction of grammaticalization. Previous studies have identified two robust pathways, namely, a causative-to-passive development, often mediated by reflexive constructions (e.g. Barber 1975; Nedjalkov 1993; Yap & Iwasaki 2002), and a reflexive-to-passive pathway, sometimes mediated by a middle construction (e.g. Heine & Kuteva 2002). An interesting research question is whether there is evidence of versatile grammatical markers with uses extending the full length along a causative > reflexive > middle > passive continuum. In this paper, using diachronic data from the Sejong historical corpus, we trace the development of two Korean voice markers, namely -i and -eci, to determine their extent of grammaticalization along the voice continuum. We also examine the semantic-pragmatic and morphosyntactic conditions that facilitate their extended uses.

Our analysis (see Figure 1) reveals that suffix -i has extended beyond its causative function as in (1a) below and developed spontaneous middle and passive uses by the 15th century (1b-c), with double causative constructions also attested in this period (2), and with double passive constructions emerging in the 18th century (3), and facilitative middle constructions in the 20th century (4). Our findings indicate a primary grammaticalization pathway along a causative > reflexive > spontaneous middle > facilitative middle continuum, and a secondary grammaticalization pathway along a causative > reflexive > passive continuum. Thus, although the highly versatile suffix -i extends its usage across the full range of voice categories (causative, reflexive, middle and passive), its extensions into the middle and passive domains develop along separate grammaticalization trajectories, with both trajectories sometimes mediated by reflexive constructions.

Our analysis further reveals that suffix -i faced strong competition from suffix -eci within the middle voice domain. Originating from a verb ti- meaning ‘fall’ as in (5a) that developed into a spontaneous middle marker, attested since the 15th century (5b), -eci further developed into an inchoative middle marker in the 17th century (5c) and later also into a facilitative middle marker in the 20th century (5d). With its inherent focus on the outcome of the event rather than on the causer, suffix -eci soon outperformed suffix -i within the middle voice domain. Suffix -eci has also begun to develop passive uses, attested since the 18th century (5e), but tends to be deployed more with agentless passive constructions compared to its passive -i counterparts. These structural and functional biases are consistent with their historical origin, with -i starting out as a causative suffix, while -eci started out as a spontaneous (i.e. anticausative) middle marker. Overall, our analysis reveals that middle and passive voice constructions can develop independently of each other (as in the case of the -i constructions), or passive uses can emerge from middle uses (as in the case of the -eci constructions). There is no observable evidence of a contiguous causative > reflexive > middle > passive development, nor a passive > middle development, for the Korean -i and -eci voice markers.

(495 words)
Figure 1. Grammaticalization of voice markers -i and -eci in Middle, Modern and Contemporary Korean

<table>
<thead>
<tr>
<th>Late Old Korean (10th-13th c.)</th>
<th>Middle Korean (14th-16th c.)</th>
<th>Early Modern Korean (17th-18th c.)</th>
<th>Modern Korean (19th-early 20th c.)</th>
<th>Contemporary Korean (late 20th-21st c.)</th>
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</thead>
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<tr>
<td>Morphological causative -i (10th c.)</td>
<td>Spontaneous middle -i (15th c.)</td>
<td>Passive marker -i (15th c.)</td>
<td>Double causative (e.g. -i-wu in 15th c.)</td>
<td>Double passive (e.g. -ki-i in 18th c.)</td>
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<td></td>
</tr>
<tr>
<td>Postverbal suffix -a/e + verb -ti ‘fall’ (15th c.)</td>
<td>Facilitative middle -i (20th c.)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Spontaneous middle -ati/-eti (15th c.)</td>
<td>Passive marker -ati/-eti (18th c.)</td>
<td>Hybrid passive (e.g. -hy-eci) (20th c.)</td>
<td>Facilitative middle -aci/-eci (20th c.)</td>
<td></td>
</tr>
<tr>
<td>Inchoative middle -ati/-eti (17th c.)</td>
<td>Passive marker -ati/-eti (18th c.)</td>
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<tr>
<td>Hybrid passive (e.g. -hy-eci) (20th c.)</td>
<td>Facilitative middle -aci/-eci (20th c.)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Examples

(1) a. (nay) ... ahAy-lo hwenhi tungeli kull-hi-ko [CAUSATIVE]
   ‘I had the child scratch my back so I no longer itch and …’ (1481, twusienhay 15:4)

b. tong-mwun-i tolo tat-hi-ko [SPONTANEOUS MIDDLE]
   ‘The East Gate closed again.’ (1459, welinseko 23:80)

c. yuceng-tAl-hi motin cyungsAyng mul-y-e [PASSIVE]
   ‘Every person was bitten by the brutal beast, and …’ (1459, welinseko 9: 58)

(2) (hwangtye-y) kyucyang-ul kwen meli-ey ssu-y-e-si-ko [DOUBLE CAUSATIVE]
   ‘The king had (us) put his writing in the introduction of the book.’
   (1620, yehwun enhay sang 6b)

(3) yekcek-uy pilmuy piloso kkek-ki-i-ko [DOUBLE PASSIVE]
   ‘The excuse of the rebel was finally rejected (< ‘was cut off’).’ (1776, myenguylok 2:21a)

(4) i chayk-i cal phal-li-n-ta [FACILITATIVE MIDDLE]
   ‘This book sells well.’

(5) a. nal-i cyemul-e hAy-ka ti-kenu... [LEXICAL VERB ‘FALL’]
   ‘The day waned and the sun set ...’ (1459, welinseko 8:93)

b. elAm-i muntuk phul-ey-e, ... [SPONTANEOUS MIDDLE]
   ‘Since the ice suddenly melted, …’ (1617, Tongkwaksinsoksamanghayngsilto)

c. sa-hAyng-i tall-aci-ni... [INCHOATIVE MIDDLE]
   ‘As the formal procedure of sending an envoy to (Japan) starts to change …’ (1764, Illongcangyuka)

d. coytam-un mosci-solAy-ey ta mwunb-ecy-es-tota [PASSIVE]
   ‘The wall of sin was destroyed by the sound of nailing (on the cross).’ (1901, sinhakwelpo1.txt(1921))

e. long laithe (Long Lighter) cal khy(e)-ecy-ey-yo [FACILITATIVE MIDDLE]
   ‘Long Lighter ignites well.’

References

1. Introduction

Japanese has right-dislocation (RD), as in many other languages. Elements can appear to the rightmost position, as in (1). Previous studies of RD in Japanese can be classified into two groups: biclausal analyses (Kuno 1978, Tanaka 2001, and Takita 2011, among others) and a monoclausal analysis (Takano 2014). The biclausal analyses argue that RD consists of two CPs and is derived by two operations: a syntactic leftward movement of right-dislocated elements and a deletion of repeated materials in the second CP, as in (2). The monoclausal analysis argues that RD consists of a single CP and is derived by rightward movement in PF, as in (3). Takano (2014) observes that RD is insensitive to syntactic islands and only elements with [-Focus] can be RDed (see Section 2 below).

2. A Puzzle

The main puzzle is that wh-phrases cannot be right-dislocated, as in (4) (see Kuno 1978, Tanaka 2001, among others). Tanaka (2001) explains that (4b) is ungrammatical because pro cannot indicate wh-phrases. Takano (2014) explains that (4b) is ungrammatical because wh-phrases have [+Focus]. Both analyses, however, suffer from empirical problems. In (5), rokuna-XP and an NP with a focus-sensitive particle -dake can be right-dislocated, but they are wrongly predicted to be as degraded as (4b) under previous analyses because -dake is a focus-sensitive particle and should have [+Focus] (Hayashishita 2003, among others). Furthermore, according to Miyagawa et al (2016), (6) shows that rokuna-XP is an NPI and cannot be used as an elliptical answer. This means that a constituent containing negation cannot be deleted. The biclausal approach by Tanaka, however, assumes deletion of negation, as in (6A2). Hence, it wrongly predicts (5a) to be ungrammatical.

3. Proposal

I propose a double preposing approach, as in (7). RD in Japanese is derived by two syntactic leftward movements: movement of right-dislocated XP out of CP, then movement of remnant CP (see also Kayne 1994 and Ko 2015). My proposed analysis neither involves deletion nor limits RD to [-Focus] elements. It also predicts that RD is clearly sensitive to syntactic islands, because my analysis involves syntactic movements. This prediction is indeed borne out. As in (8), RD out of a relative clause is clearly ungrammatical.

4. Wh-phrases in RD and its Prosodic Constraints

Following Ishihara’s analysis of focus intonation prosody (Ishihara 2002, 2017), I argue that right-dislocated wh-phrases are prosodically ill-formed. Ishihara observes that prosody of wh-questions is conditioned by linear order between wh-phrases and its licensing complementizer, as in (9). Under my analysis, wh-phrases in RD appear to the right of its licensing complementizer, as in (4b). While (4a) conforms to Ishihara’s analysis in (9), (4b) does not, because F0-reduction fails to apply between the wh-phrase and the licensing complementizer: wh-phrases in RD appear to the right of its licensing complementizer, as in (10b). The biclausal approach cannot be maintained even if they adopt these prsodic constraints in (9), because wh-phrases in RD appear to the left of its licensing complementizer under the biclausal analyses. Furthermore, my analysis can also explain an interpretative asymmetry between (11) and (12). Example (11) is ambiguous between a wh-question reading and a yes-no question reading. If RD applies to the entire embedded clause as in (12), however, the sentence is unambiguously interpreted as a yes-no question reading. The wh-question interpretation in (12a) becomes unavailable because the dislocated embedded clause including wh-phrases appears to the right of its licensing matrix C under my proposed analysis in (7), while the yes-no question interpretation in (12b) is available because wh-phrases appear to the left of its licensing embedded C under my proposed analysis.
   Taro-Nom apple-Acc eat-Past Prt Taro-Nom eat-Past Prt apple-Acc
   ‘Taro ate apples.’ ‘Taro ate apples.’

(2) A derivation of example (1b) under the biclausal approach in Tanaka (2001)
   [CP1 Taro-ga pro1, tabe-ta yo.] [CP2 ring-o, Taro-ga, tabe-ta yo].

(3) A derivation of example (1b) under the monoclausal approach in Takano (2014)
   [Taro-ga ei, tabe-ta yo.] ring-o [F-Focus].

(4) a. Taro-ga nani-o tabe-ta no? b. *Taro-ga tabe-ta no, nani-o?
   Taro-Nom what-Acc eat-Past C Taro-Nom eat-Past C what-Acc
   ‘What did Taro eat?’ ‘What did Taro eat?’

   Taro-Nom eat-Neg-Past Particle decent-apple-Acc
   ‘Taro did not eat any decent apple.’
   b. Taro-ga tabe-ta yo, ringo-dake-o.
   Taro-Nom eat-Past Particle apple-only-Acc
   ‘Taro ate only apples.’

   you-Top who-apple-Acc see-Past C decent-apple-Acc eat-Neg-Past Prt
   ‘What apple did you eat?’ ‘I did not eat any decent student.’
   decent-ringo-Acc eat-Neg-Past Prt Int.: ‘No decent apple.’

(7) A monoclausal double leftward movement approach
   \[
   \begin{array}{l}
   \left[ \left[ \text{CP1} \ldots \text{t}_i \ldots \right] \left[ \text{XP} \ldots \text{t}_j \right] \right] \\
   \text{1: Leftward Movement of XP in syntax} \\
   \text{2: Remnant Movement of CP in syntax}
   \end{array}
   \]

(8) *Hanako-wa [Ken-ga t it-teage-to desures-i-o] korekara mi-ru yo, okusan-ni.
   Hanako-Top Ken-Nom buy-Past dress-Acc from.now see-Future Prt his.wife-for
   ‘Hanako sees the dress that Ken bought for his wife from now.’

   (i) F0-raise of wh-phrases
   (ii) F0-reduction until its licensing complementizer

(10) a. Taro-wa nani-o tabe-ta no? (=4a) \[\ldots \text{wh}-\ldots \text{C}\]
    b. *[[Taro-wa \text{t}_i \ldots \text{t}_j \ldots] \text{nani-o;} \text{t}_j]? (=4b) \*[[\ldots \text{t}_i \ldots \text{C}] \text{[wh-;} \text{t}_j]]
    (wh- and C indicate a wh-phrase and its licensing C respectively.)

(11) [Taro-wa [Jiro-ga nani-o kat-ta ka] it-ta no?]
   Taro-Top Jiro-Nom what-Acc buy-Past C say-Past C
   a. ‘What did Taro say that Jiro bought?’ \[\ldots \text{[wh-\ldots]} \ldots \text{C}\]
   b. ‘Did Taro say what Jiro bought?’ \[\ldots \text{[wh-\ldots]} \ldots \text{C}\]

(12) [[Taro-wa \text{t}_i \ldots \text{t}_j \ldots \text{no};] \text{[Jiro-ga nani-o kat-ta ka]} \text{t}_j]?
   Taro-Top say-Past C Jiro-Nom what-Acc buy-Past C
   a. *‘What did Taro say that Jiro bought?’ *[[\ldots \text{t}_i \ldots \text{C}] \text{[wh-\ldots]} \text{t}_j]
   b. ‘Did Taro say what Jiro bought?’ \[\ldots \text{[t}_i \ldots \text{C}] \text{[wh-\ldots]} \text{t}_j]

Selected References
Lexical representations are shaped by individuals’ experiences with socially-conditioned phonetic variation. For example, priming effects of words containing cross-dialect phonetic variants depend on listeners’ exposure to the dialect [1]. Additionally, words are recognized faster when the talker’s age matches the age of people who produce the word most frequently [2, 3]. Building on this work, we demonstrate that listeners use the links between phonetic variants and lexical items during lexical access.

In Seoul Korean, phrase-initial plosives are realized with different VOT and F0 at the voice onset across age [4, 5, 6] (see Table 1). With age-associated covariance between the plosives and lexical items, we predicted that words associated with a particular age group would be recognized faster when the word is preceded by a prime word that contains a stop variant that indexes the same age information.

Forty Korean-native college students participated in the experiment. Each trial included two tasks. First, a color term was played as a prime, and participants identified the color by pressing a button with their recessive hand. Then, they heard a lexical decision stimulus and indicated whether they heard a real word by pressing a button with their dominant hand. Stimuli were produced by four talkers (age: 34-41). While two male talkers were used as distracters, two female talkers’ VOT/F0 realizations of aspirated and tense stops in the prime words were manipulated into two guises in a between-subjects design across talkers, mimicking either younger or older speakers’ productions of stops (see Figure 1). Among the 540 lexical decision stimuli, 110 real words that do not begin with an obstruent were used as critical items and assigned a word age, a continuous variable indicating how likely each word is to be used by older/younger people [3].

A linear mixed effects model was fit to raw reaction times for the critical items preceded by aspirated/tense primes for which responses on both tasks were correct (N=2,845 tokens). Fixed effects included plosive ID (tense/aspirated), word duration, guise (younger/older), word age, an interaction between word age and test location (Korea/Hawai‘i), and an interaction between word age and guise. Random effects included (1) by-participant slopes for guise, word age, and their interaction, (2) by-item slopes for an interaction between guise and word age, and (3) by-participant and by-item intercepts. As presented in Table 2, along with influences from other factors in the model, there was a significant interaction between guise and word age; when primed with a young-associated stop variant, participants took longer to recognize words with higher word ages (p=.018).

In sum, lexical access is primed by a phonetic variant when it is indexed with congruent social information. In light of usage-based models, our finding suggests that encountering socio-indexical phonetic realizations boosts the probability of encountering words that are frequently used by the same individuals who tend to produce the phonetic variants.
Table 1: Overview of VOT and F0 found in younger/older speakers’ realizations of plosives.

<table>
<thead>
<tr>
<th></th>
<th>VOT</th>
<th>F0 at voice onset</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASP</td>
<td>old &gt; young</td>
<td>old &lt; young</td>
<td>[pʰalan] 'blue'</td>
</tr>
<tr>
<td>TENSE</td>
<td>no difference</td>
<td>old &lt; young</td>
<td>[pʰalkan] 'red'</td>
</tr>
<tr>
<td>LAX</td>
<td>no difference</td>
<td>no difference</td>
<td>[pamse:k] 'brown'</td>
</tr>
</tbody>
</table>

Figure 1. VOT/F0 distribution of priming stimuli: Specific values for the young and old guises were determined within a normal range of VOT/F0 reported in the production literature [e.g., 6].

Table 2. Model output: Higher word age indicates the word is highly associated with older people.

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-val</th>
<th>p-val</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>770.112</td>
<td>43.744</td>
<td>17.605</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Plosive ID=tense</td>
<td>-7.215</td>
<td>19.794</td>
<td>-0.364</td>
<td>.715</td>
</tr>
<tr>
<td>Word duration</td>
<td>0.449</td>
<td>0.062</td>
<td>7.215</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Guise=young</td>
<td>5.355</td>
<td>3.872</td>
<td>1.383</td>
<td>.167</td>
</tr>
<tr>
<td>Word age</td>
<td>15.989</td>
<td>8.052</td>
<td>1.986</td>
<td>.047</td>
</tr>
<tr>
<td>Test location=Korea : Word age</td>
<td>-16.423</td>
<td>5.855</td>
<td>-2.805</td>
<td>.005</td>
</tr>
<tr>
<td>Guise=young : Word age</td>
<td>6.937</td>
<td>2.922</td>
<td>2.374</td>
<td>.018</td>
</tr>
</tbody>
</table>

References

Productive Use of Indexicalized Variable in Social Interaction: The Case of Ranuki in Japanese
Shin-ichiro SANO
Keio University

Synopsis: Recent sociolinguistic studies have offered a multi-dimensional perspective of style where social meanings of linguistic forms are defined by interactional moves through which speakers take stances, create alignments, and construct personas (e.g. Eckert 2000 et seq.; Eckert and Rickford 2001; Podesva 2004; Coupland 2007), beyond the earlier uni-dimensional model based on the direct mapping between standard/vernacular dichotomy and social categories (e.g. Labov 1972). This project provides a case study of style/index focusing on the morphophonological variation in verbal inflection called ranuki (ra-Deletion) in spoken Japanese. In particular, this study demonstrates (i) novel stylistic aspects of ranuki and its emerging functions, and (ii) the process where speakers develop such functions by utilizing the variable that are tied to the existing norms for their own interactional purposes. This study confirms that the productive use of ranuki indexically signals the fine-grained stylistic information.

Background: The ranuki variation that comprises -rae (full form) and -re (reduced form) (Table 1, e.g. Ito & Mester 2004) and the attitude toward it are considered to be established (although ranuki is still diffusing), since (i) more than a hundred year has passed since ranuki was first observed, and it is now widely used; (ii) ranuki has been covered by the education and the media where the non-standard status of reduced form is highlighted, and thus the distinction between the full form (standard) and the reduced form (non-standard) is recognized even by non-experts. Furthermore, recent usage-based studies shed light on unnoticed linguistic and extra-linguistic aspects of ranuki (Sano 2011; Sherwood 2014, 2016).

Additionally, sociolinguistic surveys in Japanese observed the recent trend that speakers (esp. in younger generations) productively use non-standard forms to design their interpersonal relationships and the interactional atmosphere (Tanaka 2001; Kobayashi 2004). With this background, the present study aims to demonstrate that speakers create novel communicative functions of ranuki based on the standard/non-standard dichotomy linked to the existing norm.

Method: Data were retrieved from Meidai Conversation Corpus (ver. 2016.12) using Chuunagon (ver. 2.2.2.2). An exhaustive search of the data in Meidai Conversation Corpus resulted in 656 tokens, of which 387 (59%) were full forms and 269 (41%) were reduced forms. Each token was analyzed in terms of (i) relationship between speakers, and (ii) setting.

Results & Discussion: The distribution of ranuki differs according to the following factors (Table 2):

[relationship between speakers] (1) lovers > parents, friends (affection, intimacy); (2) peers > seniors/juniors (seniority); (3) neighbors, acquaintances < strangers (appearance, decency); [setting] (4) while traveling > home > public place > workplace (atmosphere, relaxed/nervous, face, role); (5, 6) class/rank of shops and restaurants: low > high (harmony/consistency with the space). The observed patterns demonstrate that the manner the speakers deploy ranuki indexically signals fine-grained stylistic information: (i) interpersonal relationships such as seniority-based hierarchy and intimacy/solidarity, and (ii) settings associated with purposes of interaction, and atmosphere and class/rank of the space. Thus, in performing social actions, speakers derive ranuki’s new indexicalized functions for interactional purposes, in addition to the given status as a non-standard/vernacular form that is imposed by the linguistic norms/prescriptive grammar, which is difficult to explain by the earlier model.
Table 1: Examples of full/ranuki form *rare/re = potential suffix

<table>
<thead>
<tr>
<th>stem (vowel final)</th>
<th>full form</th>
<th>ranuki (reduced) form</th>
</tr>
</thead>
<tbody>
<tr>
<td>mi- ‘see’</td>
<td>mi-rare</td>
<td>‘can see’</td>
</tr>
<tr>
<td>tabe- ‘eat’</td>
<td>tabe-rare</td>
<td>‘can eat’</td>
</tr>
</tbody>
</table>

Table 2: The distribution of full/ranuki form by the relationship between speakers and the setting ordered by the ratio of ranuki form (%) *The distributional skews were tested by the logistic regression analysis using R (R development Core Team 1993–).

<table>
<thead>
<tr>
<th>Relationship between speakers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) lovers (91.3%) &gt; parents (40.4%), friends (41%)</td>
<td>z = -3.415, p &lt; 0.01</td>
</tr>
<tr>
<td>(2) peers (43.5%) &gt; seniors – juniors (22.1%)</td>
<td>z = -3.478, p &lt; 0.01</td>
</tr>
<tr>
<td>(3) neighbors, acquaintances (0%) &lt; strangers (38.1%)</td>
<td>Fisher’s exact test: p &lt; 0.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(4) while traveling (71.9%) &gt; home (53.4%) &gt; public place (34.6%) &gt; workplace (8.3%)</td>
<td>z = -5.005, p &lt; 0.01</td>
</tr>
<tr>
<td>(5) shop: -ya (e.g. pub) (52.2%) &gt; -ten (e.g. café) (16.7%)</td>
<td>z = -3.728, p &lt; 0.01</td>
</tr>
<tr>
<td>(6) restaurant: family restaurant (58.3%) &gt; Italian restaurant (43.5%) &gt; restaurant (general) (17%) &gt; restaurant (hotel) (0%)</td>
<td>z = -3.795, p &lt; 0.01</td>
</tr>
</tbody>
</table>

References

Talk presented at NWAV-AP3 at Victoria University of Wellington.
On the rise of *douride* ‘no wonder’ as a projector and the reformulation of discourse sequential relations in Japanese

This study examines the discourse function of *douride* (or *dooride*) ‘no wonder’ from the late nineteenth through the early twenty-first centuries. *Douri* stands for ‘reason, truth’ and the particle –*de* is the continuative form of *da*, an auxiliary or copulative verb that can be considered to have emerged in the late fifteenth century (Frellesvig 2010: 400). The form *douride* can be witnessed in the middle of the eighteenth century (Kitahara 2006); however, it seems not to be used frequently enough because neither Fujimoto and Takada (2015) nor Ichimura (2015) includes crucial examples. Furthermore, this particular expression has not come under close scrutiny (see Kudo 2016) not least in terms of theoretical frameworks (e.g. Traugott and Trousdale 2014). Therefore, this study probes deeper into the later stages of Japanese, using *Taiyo Corpus* (1895, 1901, 1909, 1917, 1925) and *Balanced Corpus of Contemporary Written Japanese* (=BCCWJ, the genre of book, 1971-2005), and investigates the development of *douride* in the eyes of ‘projector constructions’ in Interactional Linguistics (e.g. Laury et al. 2014; Günthner 2016; Shibasaki).

The findings suggest that *douride* develops from its older nominal predicate use such as *douri-nari/dearu/desu* ‘is no wonder’ as in (1) to an adverbial or conjunctive expression as in (2), a syntactically stand-alone expression.

Along with the syntactic expansion, the flow of information changes as follows. Around the turn of the twentieth century, the nominalized clause is topicalized by the topic marker *wa* and immediately followed by the nominal predicate *douri-nari* as in (1); the thematic clause with *wa* is accompanied by the rhematic *douride*-predicate. This self-contained sentence structure is predominant around this period. On the other hand, the usage of *douride* around the twenty-first century goes beyond one sentence structure and into a larger discourse unit, connected by *douride* appearing between sentences, as in (2), where *douride* becomes syntactically independent and implies a decline in the degree of its nouniness. In tandem with the syntactic-semantic change, *douride* is used sentence-initially so that the speaker/writer can introduce in the following statement his/her own idea, opinion, speculation, view, etc. on the preceding discourse. Accordingly, the newly emergent *douride* at the beginning of sentence enables the addressee/reader to expect more to come in a subsequent stretch of discourse. The reformulated flow of information facilitates interaction in a more effective way; more than 53% of the examples in BCCWJ (46 out of 86 tokens, the genre of book) exhibit this usage.

In Interactional Linguistics, the term ‘projector’ stands for a set of expressions that anticipate upcoming discourse (Hopper and Thompson 2008: 105) while relating it to the preceding information as in the use of *douride* (cf. Gentens et al. 2016 and Günthner 2016). In other words, *douride* undergoes the formal change from a nominal predicate to an adverb and the functional change from a rhematic predication in one sentence to a projecting connector serving between sentences. What can be emphasized here is that language users reinvent available grammatical structures to realize their communication either written or spoken (Du Bois 2003: 49).
Examples

(1) Kyōnen no koto o omoidashi-te kanashiku omou no wa douri-da
   last.year GEN thing ACC remember-and sad think NML TOP no.wonder-be
   ‘(It) is no wonder that (we) feel sad when (we) remember what (happened) last year’
   (1895 Azumanishikie; Taiyo)

(2) Ore no sugata demo maeni mita-n daroo ka.
   I GEN figure PT before see-NML I.suppose PT
   ‘(He) might have caught sight of me before, (I) suppose. No wonder, (he) didn’t do anything to me’ (2002 Ijime e no gyakushu; BCCWJ)

References


Corpora

Balanced Corpus of Contemporary Written Japanese (BCCWJ).
   (http://www.kotonoha.gr.jp/shonagon/)


When a speaker in conversation encounters a trouble producing an utterance, one of the common solutions across languages is self-addressed questions (SAQs). Tian et al. (2016) showed that Japanese speakers produce nante yu no ‘how to call it,’ nan daroo ‘what would it be’ and nan dakke ‘what was it,’ and concluded that, comparing the usages with English and Mandarin counterparts, SAQs in Japanese more frequently address problems of phrasing than problems with memory retrieval. It should be pointed out, however, that having a trouble in formulation is one thing and verbalizing such a trouble is another. In other words, it is not yet clear what outcome such meta-comments on the speaker’s troubles have in the ongoing interaction.

Adopting the methodology of Interactional Linguistics (Thompson et al. 2015), this paper aims to reveal the functions of verbalizing troubles in interaction. The data for this study are taken from CallHome and CallFriend Japanese (McWhinney 2007) and some additional video recordings from our own collection.

Through the qualitative analyses, we found that while the speaker’s trouble when using nante yu no can be a lack of appropriate expression in the language they speak (ex.1), the speaker often has an interactional issue in that she or he is implementing an action that requires delivery with caution due to the delicate nature of the action (cf. Lerner 2013), such as giving advise to the recipient (ex.2) or making a negative evaluation about people (ex.3). Using nante yu no ‘how to call,’ the speaker alerts the recipient about the delicate nature of the talk that is going to be delivered. Moreover, the tokens of nante yu no are often articulated in a faster tempo than the surrounding talk, which indicates that the speaker is not buying time but is indicating her stance towards the content.

We also compared nante yu no with the other SAQs in Japanese, which makes our findings more robust. Firstly, nan daroo ‘what would it be’ is often produced after a question, when the speaker is trying to come up with an answer. With nan daroo, the speaker keeps the floor, making the recipient wait until a satisfactory answer is produced. By contrast, the tokens of nan dakke ‘what was it’ are often used when the speaker is telling a story. Although the story belongs only to the speaker, she or he orients to the shared knowledge with the recipient using nan dakke, so that the recipient can offer the candidate answer. Thus, the three types of SAQs differ in their sequential environments as well as their interactional functions.
Examples

(1) [The speaker is talking about his experience in shopping.]
e warito ano: nante yu no hora yasuuri (0.3) hai- a: ha ryohanten mitaina toko aru ndakedo
INJ fairly well how.to.say hey discount.shop INJ INJ volume.retailor like place exist but
“Well, fairly, you know, there are places, how to say it, like discount shops (0.3) re-t- um
volume retailers.”

(2) [The speaker is commenting on a letter that the recipient wrote in English.]
01 iroiro ano > nante yu no kana< machigae de wa nai ndakeredomo:::;
various INJ how.to.say mistake COP TOP NEG but
02 motto koo iu hoo ga ii tte iu noto::;
more this say way NOM good QT say and
“There are various, how to say it, … though they are not mistakes,
but there are better ways to say those things.”

(3) [The speaker is asked whether she has made friends in the new environment.]
01 tteiuka::, hh ano:, zenzen koo:, > nante yu no kana< chigau ndesu yo ano,
DM INJ at.all INJ how.to.say different COP FP INJ
02 (0.2) kyootsuuno ten ga nai ndesu zenzen.
common point NOM not.exist COP at.all
“It’s rather, well, totally, well, they are, how to say it, different.
(0.2) We have nothing in common at all.”

Transcription symbols
> words <  words articulated in a faster tempo
(0.3)  length of pause or silence
:  prolongation
-  cut-off

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turn-constructional infrastructure for collaborative indiscretion. In M. Hayashi, G.
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10.1007/s10936-016-9468-5
The Role of Intonation in Discourse: The analysis of -ani in Korean  
Mee-Jeong Park  
University of Hawaii at Manoa

In many languages, including English, the expressions ‘yes’ and ‘no’ are often grammaticalized into discourse makers (DM), which plays a role in organizing the flow and structure of discourse (Schiffrin, 1982). Also in Korean, the negative expression ani ‘no’ can have two main functions: (i) that of negative answer (NEG) to a prior utterance, most commonly as an answer to Yes-no questions, or (ii) that of discourse marker (DM). Kim (1997) suggests three different functions of DM ani including: (i) a way of expressing unacceptable attitude, (ii) to call one’s attention to a change in topic, and (iii) as a repair maker for an error. The purpose of this study is to investigate the role of intonation, Korean prosodic boundary tones (BT) in particular, in marking different functions of Korean negative ani ‘no’.

According to Jun’s model of Korean intonation (1996, 1998, 2000), an AP contains one or more words, and an IP can have one or more AP and is marked by a phrasal tone known as boundary tone (BT) such as H%, L%, HL%, LHL% etc. Although Jun includes up to nine types of these BTs in her model, Park (2012) classifies them mainly in two groups based on their final tone type: final-L (L%, HL%, LHL%, LHLHL%) and final-H (H%, LH%, HLH%, LHLH%), as the L-final BTs do not show similar compatibility as is the case of the H final BTs.

This study includes a total of 148 tokens of ani taken from twenty 60-minutes episodes of Korean TV dramas aired within the past 3 years. From the 148 tokens of ani, 33 were used as NEG answer to a prior utterance and 115 as DM (table 1). All tokens were analyzed using Sciscon’s Pitch Works speech analysis software to determine the exact type of BT for each occurrence of ani in these 20 hours of spoken data. The analysis reveals that 88 out of 115 DM ani are part of an IP (Intonational Phrase) with two or more words (ex.1), whereas 27 out of 115 DM ani are used as sole IP (ex.2) (that is, ani forming one sole IP) and they all carry a final-L BT (L%, HL%, LHL%, HLHL%). On the other hand, all 33 NEG ani form a sole IP (ex.3). Of these 33 IPs, 25 of them carry a final-H BT (H%, LH%, HLH%) and 8 with final-L BT (HL%, LHL%, HLHL%). It is noteworthy to mention that the 25 cases of IP with final-H were all responses to clear yes-no questions. On the other hand, out of the 8 occurrences of NEG ani forming sole IPs with final-L BT, 6 of them were not direct answers to yes-no questions, but instead, negative comments to the prior utterance (ex.4).

The above data results show that the H-final BTs used in a non-interrogative expression NEG ani serve to set forth a basis for further elaboration in responding to a yes-no question. By using the NEG ani with H-final BT, the speaker conveys that his/her own response to a yes-no question is added to the speaker and hearer’s ‘mutual belief’ (Hirschberg and Ward, 1995), and to monitor whether the hearer can relate the content of the just released response to his/her own propositional content. In this way, H-final NEG ani enhances the interactional aspect of this topic initiated by a yes-no question by projecting the speaker's attempt to elicit the hearer's involvement into further development of discourse. The L-final DM ani, on the other hand, mainly serves to organize the flow and structure of discourse without such a strong elicitation of the hearer’s involvement.
Examples

<table>
<thead>
<tr>
<th></th>
<th>DM ani</th>
<th>NEG ani</th>
</tr>
</thead>
<tbody>
<tr>
<td>total</td>
<td>115</td>
<td>33</td>
</tr>
<tr>
<td>Non-sole IP</td>
<td>88</td>
<td>-</td>
</tr>
<tr>
<td>Sole IP</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>8 L%</td>
<td>23 H%</td>
</tr>
<tr>
<td></td>
<td>1 HL%</td>
<td>1 LH%</td>
</tr>
<tr>
<td></td>
<td>13 LHL%</td>
<td>1 HLH%</td>
</tr>
<tr>
<td></td>
<td>5 HLHL%</td>
<td>6 HL%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 LHL%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 HLHL%</td>
</tr>
</tbody>
</table>

Table 1

(1) A: [아니 근데]HL% 철수 어체 집에 안 들어갔더라?
B: 아 전혀?

(2) A: [아니]LHL% 이거 말고 다른 거 갖고 오라니까.
B: 아, 제가 가져 옵게요.

(3) A: 홍대표한테 연락왔디?
B: [아니]H%

(4) A: 내가 데려다 줄게.
B: [아니]HL% 버스 타고 가는 게 편해.

References

http://www.linguistics.ucla.edu/people/jun/ktobi/k-tobi.html


Inhibition of Korean palatalization in L2 English: Electropalatographic data
Alexei Kochetov, Kelly-Ann Blake, Fiona Wilson, Andrei Munteanu, Jessica Yeung, & Luke Zhou
University of Toronto

Korean is known to exhibit an allophonic process of palatalization, categorically changing alveolar consonants (e.g. /s,n,l/) to alveolopalatal consonants (e.g. [ɕ,ɲ,ʎ]; Lee, 1999; see (1a)). In contrast, alveolars in English do not undergo palatalization before front vowels, consistently maintaining their place of articulation (1b). Previous phonetic research has established strong influences of L1 on L2 (Flege, 1987; Kang & Guion, 2006; Hacking et al. 2016, among others). Most work, however, has been concerned with learning phonological contrasts (or their realizations), rather than with the acquisition or inhibition of phonological/allophonic processes (but see Oh, 2008). In this paper we investigate whether native Korean speakers transfer the L1-specific process of palatalization to their L2 English.

We collected electropalatographic (EPG) data from 2 Korean native speakers who are intermediate learners of English. EPG tracks the contact between the tongue and the roof of the mouth over time, using a custom-made artificial palate with built-in electrodes. The Korean materials consisted of sentences with 36 established English loanwords (from Kwuklipkwukeyenkwuwen, 1991) with initial and medial /s, n, l/ before /i/ (targets) and before other vowels (controls). The English materials included sentences with the corresponding 36 English words. Sample stimuli for /s/ are shown in (2). Sentences were presented 6 times, yielding a total 432 tokens per speaker. Measurements, taken at the point of maximum contact during the consonant, included the Quotient of electrode activation in the posterior region of the palate (Qp), which is expected to be higher for palatal(ized) consonants (Hacking et al., 2016).

The results for the Korean condition revealed that consonants had significantly higher Qp in target items than control items – reflecting the predicted presence of palatalization before /i/ and its absence elsewhere (see Figure 1, the top panel). The overall degree of contact and the amount of change was lower for /l/ than for /s/ and /n/. The results for the English condition were strikingly different, showing no significant differences between target and control items (the bottom panel). Overall, Qp values for the English target items were as low as for the Korean controls (and lower for /l/), indicative of the near-absence of palatalization. The English /l/ was produced with less palatal contact than the Korean /l/ (where it varies contextually [l,ʎ,ɬ]), presumably reflecting the velarization of the former.

To summarize, our EPG results from 2 Korean native speakers exhibited no L1-like palatalization of alveolar consonants in L2 English. This suggests that the learners have largely acquired the target pattern, effectively inhibiting the L1 allophonic process. This partly contradicts previous work on the transfer/inhibition of coarticulation (Oh, 2008). The difference is possibly due to a greater salience of categorical allophonic processes (or their absence), compared to gradient coarticulation. The results also show that the realization of Korean palatalization (in L1) is somewhat different depending on the consonant manner, being much smaller in magnitude for /l/ (i.e. [ɬ] rather than [ʎ]). Further work is needed to confirm the current finding of palatalization inhibition using a more extensive dataset and a larger participant sample.

2. Sample stimuli for the /s/ variable
   a. Korean 시즌 (sicun) – 사이클 (saikhul) 가십 (kasip) – 카세트 (khaseythu)
   b. English season – cycle, gossip - cassette

Figure 1. Mean Qp (amount of posterior contact) by language condition (KR = Korean, EN = English), stimulus type (target, control) and consonant variable (s, n, l), averaged over position and speakers

Selected references
Rendaku as a means of identity avoidance within and between morphemes

Masaki Sone and Yuki Hirose
The University of Tokyo

Recent experimental approaches to rendaku (sequential voicing) have suggested that identity avoidance is the primary motivation for rendaku. Kawahara and Sano (2014; K&S hereafter) demonstrated in a series of wug-tests that the rendaku rate increased in noun compounds where the last mora of the first constituent (C1) and the first mora of the second constituent (C2) were identical in the original form. They also showed that the rendaku rate decreased when the output would contain a sequence of identical mora across a morpheme boundary. Kumagai (2017) examined the OCP-labial effects of C2 (following a mora starting with /h/) of a compound and demonstrated that the applicability of the /h -> b/ rendaku differed by the degree of similarity among labial consonants in the subsequent moras in the input. We conducted two experiments, also wug-type naming tests, to further investigate the issue.

In Experiment 1, C1 was an existing bi-moraic word and C2 was always a tri-moraic nonce word where the initial mora was manipulated as to whether it was identical to the following mora within the word (e.g., kakara vs. kasura, see (1)). This was to test whether the identity avoidance effect (triggering rendaku) is applicable to a sequence already present in the original input. We found a significantly higher rendaku rate in the identical condition than in the non-identical condition (see Figure 1). This shows that the mora-level identity preexisting in the input can motivate rendaku to alter the input to eliminate two identical moras in a row.

Experiment 2 created a tug-of-war situation between identity avoidance across a morpheme boundary and identity avoidance within the input. C1 was either Nara or Naha (names of existing cities) to create contrast regarding whether the last mora is identical to the first mora of C2 (thereby motivating identity avoidance). C2, a nonce word, always began with ha. Note that ha becomes ba by rendaku and acquires +bilabial and +voice. The second mora of C2 was either m (+bilabial, +sonorant), n/r (-bilabial, +sonorant) or s/t/k (-bilabial, -sonorant). Based on Kumagai, we predicted the presence of the +bilabial feature of the second mora of the compound head would have a negative influence on the application of rendaku. We further tested if (i) the presence of another type of overlapping phonological feature (+sonorant) is relevant in the degree of similarity between the two adjacent moras, and (ii) the similarity between the two moras within C2 counteracts the motivation for identity avoidance across the morpheme boundary (for example, naha+hamara would be a case where two motivations are in conflict). We found a significant main effect of C1 type on the rendaku rate, reconfirming the motivation of preempting two identical mora in the compound output. There was a gradient effect against rendaku application as a function of the degree of similarity between the first two moras in C2 involving both labial (replicating Kumagai 2017) and sonorant features. As Figure 2 shows, the rendaku rate increased in the following order: +bilabial, +sonorant < -bilabial, +sonorant < -bilabial, -sonorant; each comparison showed a significant difference.

The results together demonstrated that rendaku is motivated by identity avoidance, not only by preempting the identity sequence that would occur in the output, but also by eliminating a sequence of the same phonological features (with respect to +sonorant as well as +labial) in adjacent moras within the input.
Reference

Examples
(1) mori + kakara (identical) /kasura (non-identical)
    forest  nonce word

    → mori-kakara(kasura)  or  mori-gakara(gasura)

(2) nara + hamara (+bilab, +sono) /hanara (-bilab, +sono) / hasura(-bilab, -sono)
    Nara  nonce word

    naha + hamara (+bilab, +sono) /hanara (-bilab, +sono) / hasura(-bilab, -sono)
    Naha  nonce word

Figure.1 Average probability of rendaku application in both conditions. The y-axis represents the rate of rendaku application, and the x-axis shows the identical and non-identical conditions.

Figure.2 Average percentages of rendaku application in the three conditions of consonantal features of the second mora in a compound head. The y-axis in Figure.2 shows the rates of rendaku application, and the x-axis shows the three conditions: m (+bilabial, +sonorant) vs. n/r (-bilabial, +sonorant) vs. s/t/k (-bilabial, -sonorant).
This paper analyzes a new set of data from Osaka Japanese (OJ) to clarify our understanding of the three Japanese relative clause patterns. Head-internal relative clauses (HIRCs) in standard Tokyo Japanese (TJ) terminate in the particle no, which is traditionally analyzed as a complementizer (C) or a nominalizer (2a). The HIRC pattern co-exists with the head-external relative clause (HERC) pattern in (2b), and also, as pointed out by Erlewine and Gould (2014/2016) (hereafter E&G), the doubly-headed relative clause (DHRC) pattern in (2c).

In contrast to TJ, OJ allows two distinct morphemes in what appears to be the counterpart of the TJ HIRC: n and non (3a). (3b) suggests that n is a C, because only n, not non, can be used in the counterpart of TJ no da ‘it is that’ clauses. (3c) shows that non is pronominal because only non, not n, can be used in pronominalization contexts.

Although both n and non are possible in the relative clause pattern with an internal head (3a) in OJ, the n-headed RC has only one interpretation, while the non-headed RC has two different interpretations with respect to the double quantifier tests developed by E&G. This contrast is salient in the context (1), where there are two groups of six apples and only three apples in the first group are peeled (indicated by white circles). In TJ, according to E&G, there are two possible interpretations in all three RC patterns in (2): Taro ate the three peeled apples in the first group (E&G’s witness set reading) and Taro ate all the six apples in the first group (E&G’s domain reading). E&G report that HIRCs, HERCs, and DHRCs are all interpreted the same with respect to these readings in TJ. In OJ, however, the n-headed RC as well as the HERC unambiguously have the witness set reading. In contrast, only the non-headed RC and the DHRC can also have the domain reading.

This contrast follows directly from the fact that non is pronominal, and thus able to pick up its reference from any salient entity in discourse. When the reference is to the three peeled apples, we get the witness set reading. When the reference is to the entire first group that includes the peeled apples, we get the domain reading. The plural definite description sorerano ringo ‘those apples’ in the DHRC allows the same two referential possibilities. Even in the non-headed RC and the DHRC, the more salient reading is the witness set reading; in order to get the domain reading, the N non in the non-headed RC and the external head in the DHRC sorerano ringo ‘those apples’ have to receive focus intonation. These data show that non-headed RCs in OJ are in fact a type of DHRC, headed by a pronoun. From a comparative standpoint, Kim (2017) shows that Korean also allows HIRCs with the clear pronominal head ku kes ‘that (one)’ (4), and also points out that this pattern behaves like a type of DHRC.
(1) (E&G (2016): 5, (9)) (2) is based on E&G (2016): (13)-(15).)

(2) a. Taro-wa [Hanako-ga ringo-o mit-tu muita no]-o
Taro-TOP Hanako-NOM apple-ACC three-CL peeled C-ACC
zenbu tabeta.
all ate
Lit. ‘Taro ate all of [that Hanako peeled three apples].’

Taro-TOP Hanako-NOM three-CL peeled apple-ACC all ate
‘Taro ate all of the apples [that Hanako peeled three of].’

c. Taro-wa [Hanako-ga ringo-o mit-tu muita]
Taro-TOP Hanako-NOM apple-ACC three-CL peeled
sorerano-ringo-o zenbu tabeta.
those-apple-ACC all ate
Lit. ‘Taro ate all of those apples [that Hanako peeled three apples].’

(3) a. Taro-wa [Hanako-ga ringo-o mit-tu muita n/non]-o
Taro-TOP Hanako-NOM apple-ACC three-CL peeled C/N-ACC
zenbu tabeta.
all ate

b. [Taro-wa kono hon-o koota n/*non] ya.
Taro-TOP this book-ACC bought C/N COP
‘It is that Taro bought this book.’

c. Taro-wa sono akai ?n/non-o kureta.
Taro-TOP that red C/N-ACC gave
‘Taro gave (me) the one that is red.’

(4) Na-nun [Tom-i tosekwan-eyse chayk-ul taychwulha-n]
I-TOP Tom-NOM library-from book-ACC check.out-ADN
ku.kes-ul ilk-ess-ta.
that.(one)-ACC read-PAST-DEC
Lit. ‘I tried reading the one [that Tom checked out the book from the library].’

A Configurational Approach to the Light Verb Ha- Ellipsis in Korean
Changguk Yim
Chung-Ang University

Proposal Drawing on the fact that the light verb ha- ‘do’ in Korean may or may not be elided in certain negative contexts, it is argued that this deletion fact constitutes empirical evidence in support of the configurational theory of argument-introducing verbal heads in which the light verb ha- is an exponent of a range of verbal heads such as vo, Appl° and Voice° and the ellipsis of light verbs is sensitive to syntactic hierarchy.

Discussion Examples (1) illustrate the light verb constructions in Korean, in which it is the elements preceding the ha- ‘do’ that bear all the theta-roles for the (internal) arguments in the sentences. In (2), the ha- behaves differently with respect to ellipsis in the negative sentences (light verb ellipsis (LVE)). Classifying ha- into subtypes in (3), the LVE fact in (2) attributes to categorically different kinds of ha- and their corresponding syntactic structures: Appl° and Voice° allow LVE, whereas Root and verbalizer vo resist it (double strikethrough, as illustrated in (4). This suggests that the LVE is sensitive to syntactic hierarchy.

Agentive ha- (3a) is a typical agentive verb, which is confirmed by agent-oriented adverb modification such as ‘on purpose’ in (5a). This suggests that Agentive ha- is a spell-out of Voice° introducing an agent argument in (5b) (Kratzer 1996). As in (5c), this Voice ha- can undergo the LVE. Stative ha- (3b) disallows agent-oriented adverbial modification (6a). This indicates that Stative ha- lacks agent-introducing Voice° and Chelswu is a typical experiencer. Following Koh 1996, Stative ha- belongs to “adjective” ha- and is thus an exponent of verbalizer vo (6c). In the negative context (6b), the LVE is illicit with this vo ha-. Ha- in (3c) combines with psychological state verbs. Choy (1973:218) argues that this ha- takes “subjective, psychological adjectives” or intransitive (or intransitive verbs) and turns them into transitive verbs (7). Semantics-wise, this ha- adds “actionality” (hayngtongseng) to the derived verb (ibid., p. 221). In other words, the ha- turns non-actional intransitives into actional (or dynamic) transitives. In addition, Jeong (2010:315) also maintains that “although the subject [of the ha- on hand] is agentive, it is hard to confirm that it is a typical agent, because it is still an experiencer” that resists agent-oriented adverbal modification (8a). Bak (2014) and Kwon (2014) also argue that the subjects of ha-derived verbs are agentive but not full-fledged agents, still experiencers. Given this all, I label them as “actional experiencers (AEs)” distinct from a typical experiencer. Note that semantics-wise, AE ha- takes an actional experiencer. Kim (2011) argues that there are two different external argument-introducing heads in Korean, Voice° and Appl°. Given that agentivity is specific to Voice° and not to Appl°, an argument in SpecApplP is not a full-fledged agent, unlike agents in VoiceP. This leads to argue that Appl° is exponed as AE ha-, and that its Spec position is filled by actional experiencers (8b). AE ha- allows LVE (8c). In (9a), ha- can be replaced with another lexical verb ‘smoke’, which indicates that this ha- is a lexical verb. Given this, it is a Root (9c). The LVE is impossible with Root ha- (9b). It is interesting to notice that it is also possible to stack ha- of one type onto another. Stative ha- can be stacked up with AE ha- (10). A prediction to arise is that the outer AE ha- allows LVE whereas the inner Stative ha- resists it. The prediction is borne out in (11).

Conclusion Distinct verbal heads such as vo, Appl° and Voice° can be exponed as ha-. This verb may or may not be LVE-ed (2). This suggests that the LVE is sensitive to syntactic hierarchy. Given that each verbal head adds a participant to events, the LVE fact observed above supports the configurational theory of argument structure which identifies theta-roles with syntactic configurations in a one-to-one fashion (Hale & Keyser 1993, Baker 1988, Pylkkänen 2008). Importantly, it argues against the “featural flavors of v” (Folli & Harley 2005) and the view that a range of verbal heads reduce to one single argument introducer i° (Wood & Marantz 2015). Those approaches fail to provide a principled, structural explanation for why...
certain types of verbal heads may or may not undergo LVE, because there is no structural or hierarchical difference between a variety of interpretations of the single head.

**Data**

(1) a. Chelswu-nun nam il-ey kansephā-n-ta. ‘Chelswu minds other people’s business.’
b. Na-nun phikonha-yss-ta. ‘I was tired.’
c. Mina-ka sewelho chamsa-lul sulphē-yss-ta. ‘Mina felt sad about the Sewol Ferry disaster.’
d. Mina-nun tampay-lul hanta. ‘Mina smokes a cigarette.’

(2) a. Nam il-ey kansep-∅ ma-la. ‘Don’t mind other people’s business.’
b. *Nemwu changphi-∅ ma-la. ‘Don’t be too ashamed.’
c.  Nemwu sulph-∅ ma-la. ‘Don’t feel too sad.’

(3) a. Agentive ha-: [X-ha-]; cwucangha-’argue’; phantanha-’judge’; pyenmyengha ‘excuse’
b. Stative ha-: [X-ha-]; phikonha- ‘be tired’; changphiha- ‘be ashamed’
c. AE ha-: [V-e-ha-]; kippaha- ‘feel pleased’; oylowaha- ‘feel lonely’
d. Root ha-: [R ha-]; (‘tampay, pap’) ha- ‘smoke a cigarette, cook rice’

(4) [Voice DP [Voice [AppP DP [Appl [DP [DP ha-]]]]]]

(5) a. Chelswu-nun ilpwule ku il-ey kansep ha-yss-ta. ‘Chelswu interfered with that on purpose.’
b. [VoiceP DP Agent [Voice [DP √ V°] ha-]]
c. Hyencil-ul waykokhayse phantan(ha-ci) ma-la. ‘Don’t judge the reality distortedly.’

(6) a. Chelswu-nun (*ilpwule) sihem kyelkwa-ka changphiha-yss-ta. ‘Chelswu was ashamed of his exam result (*on purpose).’
b. Ni-ka na-uy mal-ey sepsep*(ha-ci) mal-aya haltheynte. ‘I wish you should not be disappointed at me.’
c. [V° DPExperiencer [V √ ha-]]

(7) a. Chelswu-eykey sewelho chamsa-ka nemwuna sulph-ess-ta. ‘The Sewol Ferry disaster was a pity for Chelswu.’
b. Chelswu-ka sewelho chamsa-lul nemwuna sulphē-ss-ta. ‘Chelswu felt very sad about the Sewol Ferry disaster.’

(8) a. Chelswu-ka (*ilpwule) sewelho chamsa-lul sulphē-ss-ta. ‘Chelswu felt sad about the Sewol Ferry disaster (*on purpose).’
c. Silphayhayto sulphē(ha-ci) ma-la. ‘Don’t be sad if you fail.’

(9) a. Mina-nun tampay-lul {hanta/phiwunta}. ‘Mina smokes a cigarette.’
b. Tampay-lul *(ha-ci) ma-a. ‘Don’t smoke a cigarette.’
c. [Voice DP [Voice [DP [DP ha-] V°] Voice°]]

(10) a. Yengho-ka pwulhapkyek-ul changphihayha-ess-ta. ‘Yengho showed shame about his failure.’
b. [AppP DP [AppP [DP [DP ha-]] Appl° ha-]]

(11) a. Pwulhapkyek-ul nemwu changphihay(ha-ci) ma-la. ‘Don’t be so ashamed of the failure.’
b. Pwulhapkyek-ul nemwu changphi*(hayha-ci) ma-la. ‘Same as (11a)’

**Selected References**


Jeong, Yeon-ju. 2010. [Semantic characteristics of objective adjectives which are combined with -eo ha-]. Hankwuke Uymihak 33:297-319.


Bak, Jae-Hee. 2014. [A study on the basic structure of psychological adjectives in Korean]. Tongnamemwuncip 37:5-34.
This study investigates properties of Morphological Imperatives (MI) and Suppletive Imperatives (SI). In Japanese, dictionary (i.e. end) form imperatives (= SI) can represent ‘directive’ (or ‘command’) speech acts, just like typical imperative form imperatives (=MI), as exemplified in (1). What is the difference between MI and SI? To be more specific, (i) how do they semantically differ from each other? and (ii) what makes the difference between these two imperatives? In the current study, we argue that the difference depends on whether they encode weak necessity modality or not.

We can motivate the weak necessity proposal in terms of (i) the property of weak readings, (ii) embeddability, and (iii) addressee-orientation of a subject. First, it has widely been accepted that English imperatives can pattern with all kinds of ‘weak’ necessity readings (: (2)) unlike must, which induces ‘strong’ necessity readings (: (3)) (Portner 2007, a.o.). Similarly to English imperatives, the Japanese MI have weak readings, while SI do not, as shown in (4) and (5). Second, as shown in (6), MI can be embedded in an indirect quotation (cf. Saito & Haraguchi 2012) whereas SI cannot: the embedded sentence in (6b) cannot be interpreted as an imperative sentence but can only be interpreted as a declarative. Third, in Japanese MI, the subject can be co-indexed not only with the discourse addressee (2nd person), but also with the 3rd person, as shown in (7). On the other hand, in SI, the subject can be co-indexed only with the 2nd person addressee as in (8). Putting it all together, we summarize the differences between MI and SI in Table 1.

For the analysis of imperatives, we adopt the formal model of weak necessity presented in Silk (2013), in line with Medeiros (2013). Silk relates weak necessity to strong necessity (like ‘must’, which is defined as in (9)) in terms of conditional or contingent necessity. Technically, and making use of a selection function which selects a set of \( \chi \)-worlds that are closest to \( w \), the weak necessity is defined as in (10). Adopting Silk’s model of necessity, Medeiros claims that imperatives encode weak necessity, and are roughly equivalent to ought or should in their interpretation.

We claim that MI in Japanese encode weak necessity clause-internally, while SI do not; SI only clause-externally represent a directive operator (Kaufmann 2012), which enforces the presuppositions of directive speech acts, and derives the performative effect of directive imperatives. The LF of SI and MI are given in (11) and (12), respectively. Thus, the crucial point in our claim is that the only difference between MI (in directive context) and SI is ‘whether they encode weak necessity or not.’

Given the proposal above, we can now derive the differences in Table 1. First, unlike MI, SI cannot pattern with weak readings because they do not encode the weak necessity modal. Second, since MI contain the weak necessity modal clause-internally, they induce imperative-like meanings even when they are embedded. On the other hand, since SI do not encode any modal operator, they cannot be embedded in an indirect discourse with imperative meanings (note that the directive operator operates at the level of Speech Act Phrase (Speas & Tenny 2003, a.o.) and thus not be embedded). Third, the subject in SI can be co-indexed only with the 2nd person addressee since they must come with a directive operator, which enforces the presupposition of the existence of addressee. In contrast to SI, since the existence of the directive operator is not a necessary condition for a realization of MI, the subject in MI can be co-indexed not only with the addressee, namely the 2nd person, but also with the 3rd person.

The current proposal is theoretically important because it strongly suggests that the difference between non-canonical form imperatives and canonical form imperatives in directive contexts should be explained at the level of semantics, not at the level of pragmatics.
(1) a. Hayaku ik-e! ‘Go quickly!’ [Morphological Imperatives (V: Imperative form)]
   quickly go-IMP
   b. Hayaku ik-u! ‘Go quickly!’ [Suppletive Imperatives (V: Dictionary form)]
   quickly go-DIC(PRES)

(2) a. Take a train. But there’s also a bus. [advice]
   b. Open the window, if you are hot. [permission]

(3) a. #You must take a train. But there’s also a bus. [advice]
   b. #You must open the window, if you are hot. [permission]

(4) a. Densha-ni nor-e yo. Basu-mo ar-u kedo. ‘Take a train. But there’s also a bus.’
   train-to take-IMP SFP bus-too exist.PRS but
   b. Moshi atsui nara, mado-o ake-ro. ‘Open the window, if you are hot.’
   if hot.PRS then window-ACC open-IMP

(5) a. #Densha-ni nor-u! Basu-mo ar-u kedo. ‘Take a train. But there’s also a bus.’
   train-to take-DIC bus-too exist.PRS but
   b. #Moshi atsui nara, mado-o ake-ru! ‘Open the window, if you are hot.’
   if hot.PRS then window-ACC open-DIC

   Taro-NOM Hanako-to her mother-ACC help-IMP C say-PST
   → ‘Taro told Hanako to help her mother.’
   b. Taro-ga Hanako-i ni [kanojo-i no hahoya-o tetsuda-u] to it-ta.
   Taro-NOM Hanako-to her mother-ACC help-DIC C say-PST
   → ‘Taro told Hanako to help her mother.’

(7) a. (Omae\textsuperscript{2}\textsuperscript{nd}) hayaku ik-e! b. (Aitsu\textsuperscript{3}\textsuperscript{rd}) hayaku denwa-ni de-ro!
   you quickly go-IMP that.man quickly telephone-to pick.up-IMP
   ‘Go quickly!’ ‘Pick up the phone quickly!’

(8) a. (Omae\textsuperscript{2}\textsuperscript{nd}) hayaku ik-u! b. (#(Aitsu\textsuperscript{3}\textsuperscript{rd}) hayaku denwa-ni de-ru!
   you quickly go-DIC that.man quickly telephone-to pick.up-DIC
   ‘Go quickly!’ ‘Pick up the phone quickly!’

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<td>✓</td>
<td>2\textsuperscript{nd}/3\textsuperscript{rd}</td>
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Table 1. Properties of MI and SI in Japanese

(9) ‘must(φ)’ is true at \( w \) iff \( \cap P_w \subseteq [φ] \) \hspace{1cm} (Silk 2013)
   (i.e.: the truth of ‘must(φ)’ is checked by comparing whether the conditions in the evaluation
   world \( w \) are such that the premise set \( P_w \) verifies the necessity of \( φ \).)

(10) ‘ought(φ)’ is true at \( w \) iff ‘must(φ)’ is true at all worlds \( w' \in S(w, χ) \) iff \( \forall w' \in S(w, χ) : \cap P_w \subseteq [φ] \) \hspace{1cm} (ibid.)
    (i.e.: ‘ought(φ)’ makes a claim about the necessity of \( φ \) at all closest (and relevant) \( χ \)-worlds,
    for some contextually supplied condition \( χ \).

(11) LF of Morphological Imperatives (in directive context):
    \[ \text{SpeechActP} dir \ [TP(or ModaP) \square wn \ [ p; [\ldots v_{imp} \ldots \]]] \]

(12) LF of Suppletive Imperatives:
    \[ \text{SpeechActP} dir \ [TP \ p; [\ldots v_{dicl/pres} \ldots \]] \]

References (selected):
Processing of Japanese scrambled sentences in (in)felicitous context

Masataka Yano 1, 2 and Masatoshi Koizumi 1
1 Tohoku University, 2 Japan Society for the Promotion of Science (JSPS)

In many languages with flexible word order, non-canonical word orders have been reported to incur a processing load compared with canonical word orders in sentence comprehension. For example, Ueno & Kluender (2003) observed that a scrambled order, OSV elicited a sustained left anterior negativity (LAN) from O to S and a P600 effect at S compared to a canonical order, SOV in Japanese. They interpreted their results by assuming that OSV was derived from SOV by preposing O and thus the parser needed to hold a filler, O, in the working memory and integrate it with its original position, reflected by sustained LAN and P600 effects, respectively. As such, previous studies explained an increased processing difficulty for non-canonical word orders by appealing to syntactic complexities. Nevertheless, it can pertain to discourse factors, such as givenness, because canonical word order is used in a variety of context, whereas non-canonical order is used in a limited context, in which discourse requirements are satisfied. Because previous studies presented experimental sentences in isolation, which violate participants’ expectation regarding information structure encoded by non-canonical word orders, it remains unclear as to the extent to which the increased processing difficulty can be explained by discourse factors.

We conducted an event-related potential (ERP) experiment manipulating WORD ORDER (SOV vs. OSV) and GIVENNESS of arguments (new-given order vs. given-new order) to examine how givenness of arguments affects the processing of non-canonical word orders in Japanese. GIVENNESS was manipulated by presenting an existential sentence that referred to either a subject or an object of the following target sentence (see (1) and (2)). Each trial started with a lead-in context presented in its entirely, followed by a word-by-word presentation of target sentences (30 sentences per condition, DOS: 700 ms, ISI: 200 ms). Because SOV can be used in given-new and new-given orders, (2a) and (2b) did not violate an ordering requirement. On the other hand, OSV is a marked choice of word order and is used felicitously when the referent of O is a discourse-given information. The lead-in sentence in which O was mentioned made OSV felicitous in (2d) because the OS word order corresponded to the given-new ordering, whereas the lead-in sentence in which the referent of S was mentioned did not establish a supportive context for an appropriate use of OSV in (2c). If the processing difficulty associated with OSV arises due to pragmatic factors, the interaction between WORD ORDER × GIVENNESS would be expected, reflecting a greater processing load in (2c) than (2d).

The results of our experiment revealed significant WORD ORDER × GIVENNESS interactions regarding sustained LAN and P600 effects. \(O_{\text{NEW}}S_{\text{GIVEN}}V\) elicited a sustained LAN from O to S compared to \(S_{\text{NEW}}O_{\text{GIVEN}}V\), in consistent with the result of Ueno & Kluender (2003). Crucially, however, \(O_{\text{GIVEN}}S_{\text{NEW}}V\) did not exhibit a sustained LAN compared to \(S_{\text{GIVEN}}O_{\text{NEW}}V\) (Figure 1). At the following S position, \(O_{\text{NEW}}S_{\text{GIVEN}}V\) elicited a significant P600 effect compared to \(S_{\text{NEW}}O_{\text{GIVEN}}V\), replicating previous findings. \(O_{\text{GIVEN}}S_{\text{NEW}}V\), on the other hand, did not show a P600 effect compared to \(S_{\text{GIVEN}}O_{\text{NEW}}V\) (Figure 2, left). Regardless of GIVENNESS, OVS showed a greater P600 amplitude than did SOV at the V position (Figure 2, right). The lack of the sustained LAN and P600 (at S) in \(O_{\text{GIVEN}}S_{\text{NEW}}V\) suggests that the processing difficulty that has been observed for non-canonical word orders is largely associated with unsatisfied discourse requirement. In other words, these ERPs may reflect an increased interpretive difficulty, due to the infelicitous use of the scrambled word order.
(1) a. Context for (2a) and (2d):

Kai gishitsu-ni Ito-san-ga imasu.  
meeting.room-in Ito-Mr-NOM be 'Mr. Ito is in the meeting room.'

b. Context for (2b) and (2c):

Kaigishitsu-ni Suzuki-san-ga imasu.  
meeting.room-in Suzuki-Mr-NOM be 'Mr. Suzuki is in the meeting room.'

*The discourse-given NPs are indicated by boldface below.

(2) a. S NEW O GIVEN V:

Suzuki-san-ga kinoo-no hiru Ito-san-o shikatta rasii.  
Suzuki-Mr.-NOM yesterday-GEN afternoon Ito-Mr.-ACC scolded seem

‘It seems that Mr. Suzuki scolded Mr. Ito yesterday afternoon.’

b. S GIVEN O NEW V:

Suzuki-san-ga kinoo-no hiru Ito-san-o shikatta rasii.  
Suzuki-Mr.-NOM yesterday-GEN afternoon Ito-Mr.-ACC scolded seem

c. O NEW S GIVEN V:

Ito-san-o kinoo-no hiru Suzuki-san-ga shikatta rasii.  
Ito-Mr.-ACC yesterday-GEN afternoon Suzuki-Mr.-NOM scolded seem

d. O GIVEN S NEW V:

Ito-san-o kinoo-no hiru Suzuki-san-ga shikatta rasii.  
Ito-Mr.-ACC yesterday-GEN afternoon Suzuki-Mr.-NOM scolded seem

Figure 1. Grand average ERPs from the first noun to the adverbial phrase ('Mr. Suzuki-NOM/Mr. Ito-ACC yesterday-GEN afternoon') at F7 (left) and Fp1 (right). The X-axis represents the time duration (−100–2700 ms), and each hash mark represents 200 ms. The Y-axis represents the voltage. Negativity is plotted upward.

Figure 2. Grand average ERPs time-locked to the onset of the NP2 ‘Mr.Ito-ACC/Mr.Suzuki-NOM’ at Pz (left) and that of the verb ‘scolded’ at P3 (right). The X-axis represents the time duration (−100–900 ms), and each hash mark represents 100 ms. The Y-axis represents the voltage. Negativity is plotted upward.

References:
Violating Burzio’s generalization is bad, no matter how often you see it
Junna Yoshida and Edson T. Miyamoto
University of Tsukuba

Frequency of exposure has been shown to be a potent factor in language acquisition and processing. For example, recent results indicate that readers can rapidly adapt their expectations along an experimental session based on the frequency with which they are exposed to competing interpretations of ambiguous sentences (Fine et al., 2013; inter alia). Hence, an interpretation that was slow to read initially is read more rapidly as the experimental session progresses. We report evidence indicating that exposure does not override grammatical constraints such as Burzio (1986) ’s generalization.

Verbal nouns (VN) in Japanese combine with the light verb suru to form a verbal complex. The accusative marker -o can follow the VN, but -o insertion is constrained by Burzio’s generalization as only VNs that assign a thematic-role to an external argument can co-occur with the accusative marker. For example, the unergative ryoko-o-suru “to travel” is grammatical, but the unaccusative haretu-o-suru “to burst” is ungrammatical (Kageyama, 1993; Miyagawa, 1989; inter alia). We report a reading-time experiment providing evidence that there is no relative facilitation as unaccusative VN+o sentences are seen along an experiment.

A non-cumulative self-paced moving-window experiment was conducted with 40 native Japanese speakers who read 20 pairs of unergative items and 20 pairs of unaccusative items (see examples in (1), also Table 1 for frequency counts of the VNs used). Each item had a version with the accusative marker and a version without the marker after the VN (with or without, for short). Verb type and marker were within-participant factors. As in traditional analyses, the 2-way interaction of verb (unaccusative, unergative) and marker (with, without) was crucial. Moreover, a numerical factor (UnaccWith) counted the number of times each participant saw trials of the unaccusative/with type along the experiment, to measure the impact that exposure to this construction has on reading times. Frequency models predict that infrequent constructions are salient, and the more they are seen, the faster participants read them as they get used to the construction. This should apply to the ambiguous constructions used in the past, but also to the unambiguous sentences used here. The question then is whether participants get used to unaccusative VN+o and read it faster as the experiment progresses.

Results for log-transformed reading times were as follows. At the crucial region (R5: VN+[o]+suru), there was an interaction between verb type and marker (p=.043; see Figure 1; also Figure 2 for similar trends in R6) indicating that the inclusion of the marker was costlier for unaccusatives than for the unergatives (supporting Kageyama, 1993; Miyagawa, 1989; contra Grimshaw & Mester, 1988). Moreover, there was a 3-way interaction (p=.025) between verb type, marker and UnaccWith suggesting that the relative slowdown for items of the unaccusative/with type increased as participants saw more of these items. This is the opposite of what frequency models predict (Fine et al., 2013; and references therein), but it is compatible with the assumption that Burzio’s generalization is a hard-wired constraint on accusative case, which frequency of exposure cannot override.
(1) a. Unergative:

R1  R2  R3  R4  R5  R6
Kimura-san ni yoruto, asa zyuji goro nyuin-tyu no
Kimura to according morning ten o’clock around hospitalized GEN
Matumoto NOM walk (ACC) did aux-v

[Literal]: ‘According to Mr. Kimura, Mr. Matsumoto who is in the hospital did a walk around ten o’clock in the morning.’

b. Unaccusative:

R1  R2  R3  R4  R5  R6
Intanetto ni yoruto, hatizyunen-dai ni nihon -sya no yusyutu ga
Internet to according 1980s in Japanese car GEN export NOM
zouka (ACC) did aux-v

[Literal]: ‘According to the Internet, Japanese car exports did an increase in the 1980s.’

Table 1. Occurrence of VNs used in the experiment in the Balanced Corpus of Contemporary Written Japanese Data version 1.1 (accessed on February 27th 2017; National Institute for Japanese Language and Linguistics; χ²(1)=448.76, p<.0001).

<table>
<thead>
<tr>
<th>Verb</th>
<th>Case Marker</th>
<th>Without</th>
<th>With</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unergative</td>
<td></td>
<td>1477 (85.62%)</td>
<td>248 (14.38%)</td>
</tr>
<tr>
<td>Unaccusative</td>
<td></td>
<td>3076 (99.87%)</td>
<td>4 (0.13%)</td>
</tr>
</tbody>
</table>

Analyses. Statistical analyses were conducted on R version 3.3.0 (R Core Team, 2016). Due to skewness, reading times were log-transformed and then analyzed using mixed-effects models (Bates et al., 2015) with backward selection. (Similar trends were observed with untransformed RTs.) Both numerical factors (UnaccWith and the log of the total number of trials including filler sentences) were scaled and centered for the analyses.

Main Reference
Scope Marking in Japanese

Yoshiki Fujiwara
University of Connecticut

Goal: The aim of this study is to show that Japanese has scope marking constructions (SMC), which are attested in some languages such as German and Hindi.

Background: An example of SMCs in Hindi is given in (1). In SMCs, the matrix wh-phrase is used just as a signal for a direct question, which is so-called scope marker. As shown in (1)’s translation, it is the embedded wh-phrase ‘who’ that provides semantic content. According to Dayal (1994), (i) SMCs must have an embedded interrogative as shown in (2a) and (ii) the matrix verb in SMCs must be able to take [-WH] clause as illustrated in (2b). In addition, she suggests that SMC languages like German and Hindi have declarative counterparts of SMCs. In (3), the matrix object yeh appears to behave as an expletive like matrix wh-phrases in SMCs.

Japanese SMCs: I argue that Japanese examples in (4) are instances of SMCs. They each have two wh-phrases: the matrix wh-phrase ‘how’ and the embedded wh-phrase ‘whether’ or ‘why’. Note that the examples in (4) behave as a direct question of the embedded wh-phrase. In addition, Japanese SMCs show the two properties of SMCs observed by Dayal (1994). (5a) illustrates the first point (i): the embedded clause must be interrogative, and (5b) the second point (ii): it cannot be an SMC since the matrix verb ‘ask’ cannot take [-WH] clause. Moreover, Japanese also has declarative counterparts of SMCs like Hindi as shown in (6).

Syntactic analysis: Dayal (1994) argues that embedded wh-clauses in SMCs are selected by a matrix wh-phrase. Following this, I argue that the embedded question in Japanese SMCs is also selected by the matrix wh-phrase doo ‘how’. As shown in (7), omow ‘think’ cannot take an embedded interrogative without doo ‘how’, while it can when doo occurs after the embedded clause as seen in (4). This suggests that it is the matrix wh-phrase doo rather than the matrix verb omow that selects an embedded interrogative in Japanese SMCs.

Semantic analysis: Dayal (1994) proposes the indirect dependency approach to SMCs. Under this approach, a scope marker is treated as a true wh-phrase in contrast to McDaniel’s (1989) approach, where the scope marker is regarded as an expletive. Thus, SMCs like (1) consists of two wh-questions such as (8) and (9). The semantic representation of (1) is given in (10), in which the two wh-questions combine via functional application. Japanese SMCs can also be captured in the same way as Hindi’s. For example, (4a) consists of two wh-clauses like (11) and (12), and its semantic representation is shown in (13).

One major difference between Hindi and Japanese is a scope marker. Hindi scope marker is kyaa ‘what’, whereas doo ‘how’ is used in Japanese. Under the indirect dependency approach, the lexical difference of scope markers can be straightforwardly captured since scope markers in SMCs are a standard wh-expression used in a sentence like ‘what do you think?’ (cf. 8a and 11a). Thus, the lexical difference of Hindi and Japanese scope marker provides support for the indirect dependency approach.
(1) Hindi SMC: jaun kyaa soctaa hai [meri kis-se baatkaregii]? *What does John think Mary will talk to?* (Dayal 1994)

(2) a. *jaun kyaa jaantaa hai [meri ravi-se baatkaregii]?
   John what knows Mary Ravi-with will-talk (Dayal 1994)
b. *jaun kyaa puuchhtaa hai [meri kis-se baatkaregii]?
   John what asks Mary who-with will-talk (Dayal 1994)

(3) Hindi: Sirf Hanna yeK soctaa hai [ki barish ho rahi hai]. ‘Only Hanna thinks that it rains.’ (Mycock 2004)


(5) a. *Kimi-wa [prowe Orinpikku-o mi-ni ik-u beki da to] doomow-u no? (cf.2a)
   you-TOP we Olympic-ACC see-DAT go-PRES should COP C how think-PRES C ‘What did you ask? Should we go to watch Olympic games?’
b. proyou [prowe Orinpikku-o mi-ni ik-u beki kadooka] doo tasuze-ta no? (cf.2b)
you we Olympic-ACC see-DAT go-PRES should whether how ask-PAST C ‘How did you ask whether we should take reading & research?’

(6) Boku-wa [prowe Orinpikku-o mi-ni ik-u beki da to] kou omotte-i-mas-u. (cf.3)
   I-TOP we Olympic-ACC see-DAT go-PRES should COP C this think-be-POL-PRES ‘I think that we should go to watch Olympic games.’

(7) *Kimi-wa [prowe Orinpikku-o mi-ni ik-u beki kadooka] omow-u?
   you-TOP we Olympic-ACC see-DAT go-PRES should whether think-PRES

(8) a. jaun kyaa soctaa hai? ‘What does John think?’
b. \(\lambda \exists q[T(q) \land p = \lambda w' \text{ think}_{w'}(j,q)]\)

(9) a. meri kis-se baatkaregii? ‘Who will Mary talk to?’
b. \(\lambda p' \exists x[p' = \lambda w \text{ will-talk}_{w}(mar,y)]\)

(10) a. \(\exists q[T(q) \land p = \lambda w' \text{ think}_{w'}(j,q)](\lambda p' \exists x[p' = \lambda w \text{ will-talk}_{w}(mar,y))\]
b. \(\lambda p' \exists q[\exists x[q = \lambda w \text{ will-talk}_{w}(mar,y) \land p = \lambda w' \text{ think}_{w'}(j,q)]\]

b. \(\lambda T \lambda p \exists q[T(q) \land p = \lambda w' \text{ think}_{w'}(you,q)]\)

(12) a. Bokura-wa Olympic-o mi-ni ik-u beki? ‘Should we go to watch Olympic games?’
b. \(\lambda p' [p' = \lambda w \text{ should-go-to-watch}_{w}(we,O) \lor p' = \lambda w' \text{ should-go-to-watch}_{w} (we,O)]\)

(13) \(\lambda p \exists q[\exists x[q = \lambda w \text{ should-go-to-watch}_{w}(we,O) \lor q = \lambda w' \text{ should-go-to-watch}_{w} (we,O) \land p = \lambda w' \text{ think}_{w'}(you,q)]\)

References:
The Unavailability of Superlative Movement out of Korean Nominal Phrases

Sarah Hye-yeon Lee
University of Southern California

Background
It is well known that certain ambiguities arise in nominal superlatives: the absolute reading (1a) and the relative reading (1b,1c). There are two main approaches to these superlative ambiguities. The Scope Theory (Heim 1985, 1999; Szabolcsi 1986) accounts for these different readings as a matter of different covert positions of -est. The DP-Internal Theory (Farkas & Kiss 2000; Sharvit & Stateva 2002) maintains that -est stays inside the DP and that the ambiguities arise from different pragmatic specifications of the comparison class.

Pancheva and Tomaszewicz (2012) observe an additional type of relative reading (2)—the DP-internal focus relative reading—which is available in (some) Slavic languages and not in English. They attribute the crosslinguistic difference to the existence of the definite article. Polish, naj- ‘-est’ can scope outside of the DP because there is no definite article, whereas English -est is interpreted DP-internally because the definite article blocks -est movement. They argue that DP-internal -est cannot associate with DP-internal focus, and therefore the DP-internal focus relative reading is unavailable in English.

A Puzzle
Korean does not allow the DP-internal focus relative reading for nominal superlatives: (3d). This is puzzling because Korean, like Polish, does not need a definite determiner in nominal superlatives.

Proposal
I argue that Korean kacang/ceyil ‘-est’ always stays DP-internal because Korean adjectival phrases are scope islands for -est. This claim is grounded in two assumptions: 1) Korean noun-modifying adjectives are predicates inside relative clauses (e.g. Kim 2002). 2) Finite clauses are scope islands for -est (Szabolcsi 1986). It follows, then, that the DP-internal Theory (Farkas & Kiss 2000; Sharvit & Stateva 2002) is needed to account for the relative readings in Korean. The relative readings in Korean are derived from a single LF (4) by setting the comparison class C differently with respect to different nominal constituents.

Further support for the DP-Internal Theory
The focus element can be inside an embedded finite clause in Korean superlatives: (5). This clearly shows that the relative readings in Korean cannot be due to scope differences, because -est QR is (finite) clause-bounded (Szabolcsi 1986).

Also, the availability of the relative reading in Korean superlatives is sensitive to the pragmatic status of the noun with respect to which the comparison class is set: (6). The relative reading comparing Chelswu with other individuals is available when Chelswu is marked with nominative case, but not when it is marked with a topic marker -num (unless the topic-marked NP receives a contrastive reading). This suggests that topics are not compatible with F-marking, which introduces alternatives. In case of contrastive topic, however, an alternative set is available, thereby making it possible to F-mark Chelswu.

Differences between Korean and Japanese
Aihara (2009) and Shimoyama (2014) suggest that the Scope Theory of superlatives is necessary for Japanese. Japanese (7a), unlike Korean (7b), allows overt displacement of -est, in which case the relative reading is the only available interpretation (Aihara 2009). Based on (7a), Shimoyama (2014) argues that Japanese adjectives are not scope islands for degree quantifiers, and therefore are not relative clauses. Therefore, as expected, Japanese does not allow a relative reading of an NP contained in an embedded finite clause ((8) from Aihara 2009), in contrast to Korean. The differences between the two languages are summarized in (9).
Notes on superlatives. ms. 0IT.

Jan bought Mary a more expensive cake than any other relevant person did.’ (relative)

Chelswu said that <enghi got a higher score than anyone else said <enghi got. (i.e., Chelswu ranks highest in terms of how high a score one said <enghi got.)

Mako said that Hanako got the highest score.’ (Aihara 2009)

Mako said that Hanako got a higher score than anyone else got.

The score that Mako said Hanako got is higher than the score that anyone else said she got. (i.e., Mako ranks highest in terms of how high a score one said Hanako got.)
Deontic modality in Japanese: Positioning the recommendation-type modal expressions

Tsz Ming Lee, Tsz Fung Lau
University of Southern California, University of Edinburgh

Expressions of obligation (e.g. must) and those of permission (e.g. may) are often regarded as deontic necessity and possibility modals respectively. According to the orthodox view, deontic necessity and possibility are considered dual—i.e. (may P iff ¬(must ¬P)) and (must P iff ¬(may ¬P)). Existing frameworks suggest that necessity modals, as universal quantifiers over sets of worlds, entail possibility modals which are existential quantifiers (i.e. must P entails may P) (Kratzer 2012). Within necessity modals, there is a further strong/weak distinction (von Fintel and Iatridou 2008), in which strong necessity modals (e.g. must) quantify over a larger set of worlds than that of weak necessity modals (e.g. should), given the same domain of quantification. Strong necessity modals can reinforce weak ones (but not vice versa). Also, weak necessity modals are compatible with the negation of strong necessity modals (but not vice versa). The dual relations and strengthen distinction are observed in Japanese modality as well (Kaufmann & Tamura, t.a.).

Recently Beddor (2017) exposed an overlooked conceptual gap in the deontic modal framework. Since there are two types of necessity modals it would be natural to expect there being two for possibility modals as well—each standing in the dual relation with their necessity counterpart, and displaying also the strength distinction. As it is often taken that permission stands in the dual relation with strong necessity, the counterpart for weak necessity (¬(should ¬A))—faultlessness, as Beddor calls it—is the much neglected piece. Revising Beddor’s notion of faultlessness, we suggest that recommendation-type deontic expressions in Japanese such as (ta)hou-ga-ii fits perfectly for this missing conceptual gap. We present empirical data illustrating:

1. (-ta)hou-ga-ii has a dual relation with -bekida
2. Necessity type modals entail possibility type modals under the same domain of quantification: P -beki da entails P (-ta)hou-ga-ii
3. Strong modals entail weak modals under the same domain of quantification: P (-ta)hou-ga-ii entails P -temoiii, as revealed in the facts that,
   i) P (ta)hou-ga-ii can reinforce P -temoiii
   ii) P -temoiii is compatible with the negation of P (-ta)hou-ga-ii

The first two findings explore the structural correspondence between the should/recommend and the must/may pairs (i.e. between necessity and possibility), whereas the third pertains to the correspondence between the recommend/may and the must/should pairs (i.e. strong vs. weak modals). The convenient expressions of (strong/weak) obligation, permission and recommendation can then be analyzed in terms of quantification and strength. A taxonomy of deontic modals shows that each deontic expression in Japanese correspond to a combination along these two parameters (where arrows indicate entailment relations).

<table>
<thead>
<tr>
<th>Necessity (i.e. universal quantifier)</th>
<th>Strong</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>-nakereba naranai</td>
<td></td>
<td>-bekida</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Possibility (i.e. existential quantifier)</th>
<th>Strong</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>-temoiii</td>
<td></td>
<td>(-ta)hou-ga-ii</td>
</tr>
</tbody>
</table>
The data (numbering corresponding to the three claims)

1. Equivalence proofs for duals from contradiction

(1) \( P \text{-bekida} \equiv \neg(\neg P \text{-ta}) \text{hou-ga-ii} \) iff \( P \text{-bekida} \perp \neg P \text{-ta} \text{hou-ga-ii} \)

a) kusuri-o nomu bekida (You) should take the medicine.
   medicine-ACC take bekida
b) kusuri-o nom-anai hou-ga-ii ‘It is better that (you) do not take the medicine,’ where (1a) \( \perp \) (1b).
   medicine-ACC take-NEG hou-ga-ii

2. Entailment relation followed from quantification

(2) \( P \text{-bekida} \) entails \( P \text{-ta} \text{hou-ga-ii} \) (but not the other way round)

a) kusuri-o nom-da hou-ga-ii / demo sore-wa nomu bekida toiukotodewananai medicine-ACC took hou-ga-ii but that-TOP take bekida NEG ‘It is better to take the medicine, but it is not the case that (you) should take (it).’

b) # kusuri-o nomu bekida / demo sore-wa nom-da hou-ga-ii toiukotodewananai medicine-ACC take bekida / but that-TOP took hou-ga-ii NEG ‘(You) should take the medicine, but it is not the case that it is better to take (it).’

3. Consequences followed from the strength distinction

(i) Logically weaker modals can be reinforced by logically stronger modals

(3a) kusuri-o nom-demoii / toiuyori nom-da hou-ga-ii medicine-ACC took demoii / in.fact took hou-ga-ii
‘(You) may take the medicine. In fact, it is better to take (it).’

(3b) # kusuri-o nom-da hou-ga-ii / toiuyori nom-demoii medicine-ACC take-PST hou-ga-ii / in.fact take-demoii
‘It is better to take the medicine. In fact, you may take (it).’

(ii) Logically weaker modals are compatible with the negation of logically stronger modals

(4a) kusuri-o nom-demoii / demo sore-wa nom-da hou-ga-ii toiukotodewananai medicine-ACC take-demoii / but that-TOP took hou-ga-ii NEG
‘(You) may take the medicine, but it is not the case that it is better to take (it).’

(4b) # kusuri-o nom-da hou-ga-ii / demo sore-wa nom-demoii toiukotodewananai medicine-ACC took hou-ga-ii / but that-TOP take-demoii NEG
‘It is better to take the medicine, but it is not the case that you may take (it).’

References:

Expectation-Driven Facilitation in Japanese: its Independence from Distance
Hajime Ono and Mao Sugi
Tsuda University, Tokyo, Japan

Synopsis: We designed an experiment with Japanese interrogative sentences, and show that the expectation-driven facilitation and the locality-driven difficulty are independently observed even when both of the dependencies are simultaneously terminated by the single word (V+ka). In sum, we suggest that the parser handles a dependency with a syntactic wh-feature and that with lexical/semantic information separately, even when they were encoded in the same lexical item.

Introduction: Expectation plays an important role for the incremental processing (Stowe, 1986; De Vincenzi, 1991; Aoshima, et al., 2004, Delong, et al., 2005, among others). Building on a rich context and more constituents in a structure, the parser can sharpen its expectation for what to see in the sentence (the expectation-driven facilitation; Konieczny & Döring, 2003, Hale, 2001; Levy, 2008). At the same time, a longer dependency length between the elements increases the integration cost (the locality-driven difficulty; Grodner & Gibson, 2005; Lewis & Vasishth, 2005).

Husain, et al. (2014) found that the strong expectation effect cancels the distance effect. The distance effects disappear when an object strongly tied to the verb was used. They manipulated the dependency length by adding extra adverbials, and it raises some concern of altering the prediction of the particular verb. Staub (2010), on the other hand, observed the independence of the expectation and locality effects, but he evaluated those effects with the different elements in the different positions. It is rather preferable to examine the effect in the same region if the interaction of those effects is at issue. We designed an experiment using Japanese interrogative sentences, in order to examine whether the expectation and locality interact each other, without involving problems discussed above.

Self-paced Reading Experiment: In a 2×2 factorial design, EXPECTATION (Strong (ab) vs. Weak (cd)) × DISTANCE (Distant (ac) vs. Local (bd)) were manipulated. We manipulated the content of the PP (NP-de) to modulate the expectation strength with respect to the verb content. For example, in (ab), the verb ‘knit’ is strongly predicted when the object ‘glove’ was combined with a PP ‘with stick needles’. Furthermore, in the Distant conditions, an adjunct clause intervened between the object Wh-phrase and the verb.

We found that there was a main effect of DISTANCE at the embedded verb region ‘knitted-Q’, the mean reading times in the distance conditions being slow, compared to those in the local conditions (β=39.39, t=2.62, p<.02). There was also a main effect of EXPECTATION at the spillover region ‘to her grand-daughter’; the mean reading times in the strong expectation conditions were faster than those in the weak expectation conditions (β=21.58, t=2.73, p<.01). There was no interaction of the factors.

The result clearly indicated that the two factors manipulated in our experiment did not interact, but were independent from each other. We suggest that while the processing of the syntactic Wh-feature is handled separately from the processing of lex/sem information of the verb. Although the single word, the verb with the Q-particle, terminates the dependency formation, the effects were separately observed with different timings.
the inserted adjunct clause = [sinseki-no kekkon-ga tikazuita tokini]
relative-gen marriage-nom get.close when
‘when the marriage of the relative gets closer’

(a) STRONG EXPECTATION, DISTANT
Sobo-wa gikei-ga \textcolor{red}{boobari-de} dono-tebukuro-o \textbf{[adjunct clause]}
grandma-top sister.inlaw-nom stick.needle-by which-glove-acc
yorokonde andano-ka magomusume-ni tazuneta
happily knitted-Q grand.daughter-to asked
‘When the marriage of the relative gets closer, the grandma asked to her granddaughter which gloves her sister-in-law knitted by the stick needle.’

(b) STRONG EXPECTATION, LOCAL
Sobo-wa gikei-ga \textcolor{red}{boobari-de} \textbf{[adjunct clause]} dono-tebukuro-o
grandma-top sister.inlaw-nom stick.needle-by which-glove-acc
yorokonde andano-ka magomusume-ni tazuneta
happily knitted-Q grand.daughter-to asked
‘When the marriage of the relative gets closer, the grandma asked to her granddaughter which gloves her sister-in-law knitted by the stick needle.’

(c) WEAK EXPECTATION, DISTANT
Sobo-wa gikei-ga \textcolor{red}{zisitu-de} dono-tebukuro-o \textbf{[adjunct clause]}
grandma-top sister.inlaw-nom own.room-in which-glove-acc
yorokonde andano-ka magomusume-ni tazuneta
happily knitted-Q grand.daughter-to asked
‘When the marriage of the relative gets closer, the grandma asked to her granddaughter which gloves her sister-in-law knitted in her own room.’

(d) WEAK EXPECTATION, LOCAL
Sobo-wa gikei-ga \textcolor{red}{zisitu-de} \textbf{[adjunct clause]} dono-tebukuro-o
grandma-top sister.inlaw-nom own.room-in which-glove-acc
yorokonde andano-ka magomusume-ni tazuneta
happily knitted-Q grand.daughter-to asked
‘When the marriage of the relative gets closer, the grandma asked to her granddaughter which gloves her sister-in-law knitted in her own room.’

Summary of reading times at the critical regions (ms; SE in parentheses)

<table>
<thead>
<tr>
<th>Region 10</th>
<th>(a) Strong × Dis</th>
<th>(b) Strong × Loc</th>
<th>(c) Weak × Dis</th>
<th>(d) Weak × Loc</th>
</tr>
</thead>
<tbody>
<tr>
<td>verb - ka</td>
<td>727 (26)</td>
<td>731 (30)</td>
<td>626 (20)</td>
<td>672 (21)</td>
</tr>
<tr>
<td>spillover</td>
<td>636 (18)</td>
<td>674 (23)</td>
<td>613 (18)</td>
<td>673 (20)</td>
</tr>
</tbody>
</table>
This paper aims to support the labeling theory proposed in Chomsky (2013, 2015), and further developed in Saito (2014, 2016), Epstein, Kitahara, and Seely (EKS) (2014, 2015) and Goto (2016) by providing a new explanation for the well-known subject-object asymmetry in the floating numeral classifier (FNC) constructions in Korean and Japanese, as in (1) and (2).

The sentences in (1a) and (2a), where the objects intervene between the subjects and their associated FNCs, are unacceptable, whereas the sentences in (1b) and (2b), where the subjects intervene between the objects and their associated FNCs, are acceptable. The puzzle is why unlike objects, subjects cannot be separated from their related FNCs.

Chomsky (2013, 2015) propose that an H-XP structure is labeled as H by minimal search, but an XP-YP structure cannot be done so owing to an ambiguous minimal search, inducing a CI interpretive problem at the interface. Saito (2014, 2016) extends this theory to Japanese, arguing that an XP-YP structure is labeled as Y if X has an overt Case particle. To support the view, EKS (2014, 2015) provide a reason why a phrase XP headed by a Case particle is invisible to labeling. According to EKS, labeling is required at the CI-interface; hence a phrase headed by a purely phonological head like Case particles (that plays no role at CI) cannot serve as a label-identifier at CI. As a consequence of this labeling theory in (3), Goto (2016) proposes the generalization in (4), arguing that extractability correlates with labelability.

Building on Borër’s (2005) insight, Park (2009) proposes the structure (CIP) in (5) as an internal structure of FNCs. Thus, when the subjects and their associated FNCs are merged in (1a) and (2a), an unlabelable \{CIP, v*P\} structure is formed in the base position, as in (6a). On the other hand, when the objects and their associated FNCs are merged in (1b) and (2b), a labelable \{V, CIP\} structure is formed in the base position, as in (6b). Given this, the subject-object asymmetry is explained under (4): (1a) and (2a) are unacceptable because the subject DPs are extracted from the unlabelable \{CIP, v*P\} structure, as in (6a’), whereas (1b) and (2b) are acceptable because the object DPs are extracted from the labelable \{V, CIP\} structure, as in (6b’). This analysis predicts that (1a) and (2a) become acceptable if the CIPs are Case-marked. This is because, if the CIPs are Case-marked, as in (7a), the base structure of \{CIP-Case, v*P\} is labeled as v*P, so that extraction from there is predicted to be possible, as in (7a’). This prediction is borne out by (8), where the CIPs are Nominative Case-marked and extraction is allowed.

As a consequence of this analysis of the FNC constructions, the cross-linguistic variation in Subject Island effects is accounted for in the same way: English (9) is bad because the wh-phrase is extracted from an unlabelable \{DP, v*P\} structure, whereas Korean (10) and Japanese (11) are good because the wh-phrases are extracted from a labelable \{DP-Nom, v*P\} structure.
(1) a. *[ku] sonnim-i ku wain-ul t₁ twu pwun masessta. [Korean]
    the guest-Nom the wine-Acc two Cl(assifier) drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

b. [(ku) sakwa-lul] Cheli-ka t₁ twu kay mekessta.
    the apple-Acc Cheli-Nom two Cl eat-Pst-Dcl
    ‘Cheli ate two of the apples.’

b. [(ku) sonnim-i] ku wain-ul t₁ twu pwun masessta. [Korean]
    the guest-Nom the wine-Acc two Cl drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

b. [(kun) sonnim-i] ku wain-ul t₁ twu pwun masessta. [Korean]
    the guest-Nom the wine-Acc two Cl drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

b. [(kun) sonnim-i] ku wain-ul t₁ twu pwun masessta. [Korean]
    the guest-Nom the wine-Acc two Cl drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

b. [(kun) sonnim-i] ku wain-ul t₁ twu pwun masessta. [Korean]
    the guest-Nom the wine-Acc two Cl drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

(2) a. *[sono] shōtai-kyaku-ga sono wain-o t₁ fu tari nonda. [Japanese]
    the guest-Nom the wine-Acc two Cl drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

b. [(sono) ringo-o] Taro-ga t₁ fu tatsu tabeta.
    the apple-Acc Taro-Nom two Cl eat-Pst-Dcl
    ‘Taro ate two of the apples.’

b. [(sono) ringo-o] Taro-ga t₁ fu tatsu tabeta.
    the apple-Acc Taro-Nom two Cl eat-Pst-Dcl
    ‘Taro ate two of the apples.’

(3) a. {H, XP} = H

b. {XP, YP} = unlabelable

c. {XP-Case, YP} = Y

(4) Extraction out of the interior of an unlabelable XP-YP structure is impossible.

*XP₁ […] t₁ […] t₂ […] (α = an unlabelable XP-YP structure)

(5)

(6) a. {CIP, v*P} = unlabelable: (1a) and (2a)

b. {V, CIP} = VP: (1b) and (2b)

(7) a. {CIP-Case, v*P} = v*P: (8a) and (8b)

b. {?[(ku) sonnim-i] ku wain-ul t₁ twu pwun-i masessta. [Korean]
    the guest-Nom the wine-Acc two Cl-Nom drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

b. {?[(kun) sonnim-i] ku wain-ul t₁ twu pwun-i masessta. [Korean]
    the guest-Nom the wine-Acc two Cl-Nom drink-Pst-Dcl
    ‘Two of the guests drank the wine.’

(9) *?Who, do pictures of t₁ please you?

(10) ?mwues-ul Con-i Meyli-ka t₁ san kes-i mwuney-la-ko sayngkakha-ni?
    what-Acc John-Nom Mary-Nom bought-Comp-Nom problem-is C think-Q
    ‘What is it that John thinks that the fact that Mary bought it is a problem?’

(11) ?Nani-o Mary-ga John-ga t₁ katta koto-ga mondai-da to omotteru no
    what-Acc Mary-Nom John-Nom bought fact-Nom problem-is C think Q
    ‘What is it that Mary thinks the fact that John bought it is a problem?’

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On sentence-final particle *sa* in Hokkaido Japanese

Sanae Tamura\(^1\) Toshio Matsuura\(^2\) Yoshihisa Kishimoto\(^3\)
Hokusei Gakuen University\(^{1,2}\) Hokkaido University\(^3\)

In this talk, we give a semantic and pragmatic analysis of the sentence-final particle *sa* (or *sā*) in Hokkaido Japanese (JP). Since Standard JP also has a sentence-final particle *sa*, many native speakers of Hokkaido JP are unaware of the differences between *sa* in Hokkaido and Standard JP. There are, however, many differences. (1) and (2) show that (i) *sa* in Hokkaido JP is used in both male and female talk, while *sa* in Standard JP is (stereotypically) used by male; and (ii) *sa* in Hokkaido JP attaches after a copula or an evidential, which is impossible in Standard JP (Ono 1993; Izutsu & Izutsu 2013).

**HEARER-NEW & HEARER-UNRELATED** Previous studies observe several functional/distributive characteristics of *sa* in Hokkaido JP. First, *sa* marks hearer-new information (Ono 1993; Izutsu & Izutsu 2013). (3a) is unacceptable in the situation where the hearer obviously knows the fact: e.g., after the speaker and hearer watched the game together. On the other hand, (3a) is acceptable if the speaker assumes that the hearer knows nothing about the game. Similarly, (3b) can be used as far as the speaker assumes the information is hearer-new. Second, *sa* does not easily attach to an utterance about the hearer (Matsuura & Kishimoto 2016). Even if the information denoted is hearer-new, (4a,b) are unacceptable.

**PREVIOUS ANALYSIS** Based on the characteristics above, Matsuura and Kishimoto (2016) claim that *sa* cannot be attached to the information in the hearer’s territory, in terms of Kamio’s (1990, 1997, 2002) territory of information theory. Although their generalization about hearer-relatedness is important, it is unclear why the information in (4a,b) must be treated as in the hearer’s territory. According to Kamio’s conditions, it seems possible that the information in (4a,b) could be out of the hearer’s territory.

**ADDITIONAL DATA** As empirical support for our analysis, we point out two types of previously unfocused data: (i) *sa* in directives; and (ii) connotation of utterances with *sa*. (5a) and (6a) show that *sa* cannot be attached to a direct order by an imperative form or prohibitive V-*na*. It can be used in a more indirect order by continuative te-form, as in (5b), but (5b) implies that the speaker is completely tired of making an order since she already said the same thing. Similarly, (6b) is used in the situation where the hearer already came close to the speaker. Moving on to the second point, the utterance with *sa* usually refers to the unexpected information, as in (7) and (8). Attaching *sa* makes a sentence unnatural, if the speaker regards the fact as unsurprising. On the other hand, (9) carries a different connotation. As noted above, *sa* usually cannot be attached to the information about the hearer, but (9) is an exceptional case. In (9), the speaker makes a fool of the hearer by pointing out the fact that he lost his wallet.

**PROPOSALS** We propose that *sa* basically encodes instructions for the hearer; that is, there is no need to match information denoted by the utterance with information in long-term memory, and there is no need for the hearer to induce inferences based on the utterance, or to add any action to her To-Do list. Compared to Takubo and Kinsui’s (1997) analysis of sentence-final particles in Standard JP, which characterize *ne* as a marker of matching and *yo* as a trigger of inference, *sa* in Hokkaido JP can be regarded as the marker of non-*yo* and non-*ne* condition. Our analysis explains all the features of *sa*. It is unnatural to give the hearer-related information but not to expect her next inference/action, so *sa* with hearer-related information sounds odd, except for the case of making a fool of the hearer. Since *sa* does not require adding actions to the hearer’s To-Do list, directives with *sa* cannot function in simple order. As for unexpectedness, our account adopts relevance theory. Since an utterance with *sa* does not induce further inferences, its cognitive effects are quite small unless the utterance itself is surprising enough.

Our analysis needs no dialect-specific assumption about the hearer’s territory, and covers broader data. Moreover, though our analysis is basically functional, the idea closely related to formal studies, such as McCready (2009) and Davis (2011), so we can easily compare them with our analysis.
**Examples**

(1) Raisū kateika no tesuto da să. (Speaker: Female, age 14)  
next.week homemaking.course GEN test COP SA  
‘We have a test on homemaking course next week.’  
(Izutsu & Izutsu 2013)

(2) Yamada-san nara kyō-kara kyōikuissūyū rasii să.  
Ms.Yamada COND today-from teaching.practice HEARSAY SA  
‘I heard that Ms. Yamada is on teaching practice from today.’  
(Matsuura & Kishimoto 2016)

(3) a. Ĭtani, kyō ippon mo utanakatta să.  
 Ĭtani today 1.hit even hit.NEG.PST SA  
‘Ôtani [=a famous baseball player] got no hit today.’

b. Kyō ore shukudai wasurechatta să.  
today I homework forgot SA  
‘I forgot my homework today.’  
(M & K 2016)

(4) a. ??Saihu otositeru să.  
wallet drop.RES SA  
‘You dropped your wallet.’ (M&K)  
‘Something is on your hair.’

b. ?? Kami-ni nanika tuiteru să.  
hair-LOC something stick.CONT SA

Note:  
RES = resultative aspect  
CONT = continuative aspect

(5) Asonde naide gohan {a. *tabere / b. tabete} să.  
play.TE NEG.TE meal eat.IMP eat.TE SA  
‘Do not play. Eat up your meal.’

(6) a.* Kotti kuru-na să.  
here come-PROH SA  
‘Do not come here.’  
‘[lit.] You have to go over there.’

b. Attī ika-nai-ba dame să.  
there go-NEG-COND bad SA  
(A was absent from the last class. She asks her classmate B)

(7) Kinō arubaito-ni itta-kke, masaka-no tannin-ga kita să. (M&K)  
yesterday parttime.job-to went-COND no.way-GEN class.teacher-NOM came SA  
‘When I was working part-time yesterday, unbelievably, our class teacher came (to the store).’

(8) A: Syukudai-tte nanka atta?  
homework-COMP something be.PST  
‘Have we got any homework?’

B: Iya, nanmo denakatta să.  
no anything come.out.PST SA  
‘No, we’ve got nothing.’ ⇒ It’s surprising!

(9) (Yaai,) saihu otositeru să.  
(nyah) wallet drop.RES SA  
(making a fool of the hearer) ‘You dropped/lost your wallet!’

*Cf. Sentence-final particle yo in Standard Japanese*  
Asonde naide gohan {tabero / tabete} yo.  
play.TE NEG.TE meal eat.IMP eat.TE YO

Pseudogapping in Japanese
Hideharu Tanaka / Shintaro Hayashi
Mie University / Nanzan University

Issue: We explore the possibility of pseudogapping (PG) in Japanese. English PG is given in (1B), which is derived by movement of the remnant to the VP edge (Move-R) and VP ellipsis (VPE). Funakoshi (2016) establishes that Japanese allows verb-stranding VP ellipsis (VVPE), where V moves out of its elided VP, and argues that PG is also possible in Japanese. For instance, the second clause in (3a) can have the VP adjunct jitensha-de elided, while that in (3b) cannot. This difference follows if Japanese allows VVPE and if only the contrastive XP can be extracted from the elided VP, which is the case with English, as in (1B-2B). Thus, claiming that English and Japanese PG can be uniformly characterized as in (4), we address what differences or similarities they have.

Data: English and Japanese PG differ in whether Move-R can get across finite clauses (Fin-C), object control clauses (OC-C), and subject control clauses (SC-C). In English, Move-R is possible across SC-C, but not OC-C/Fin-C (Baltin 2000, Johnson 2008). In Japanese, Move-R is possible across SC-C/OC-C, but not Fin-C, as in (5).

Claim: We claim that this difference follows from a difference between English and Japanese Move-R, the former is overt Quantifier Raising (QR) (e.g., Johnson 2008), while the latter is scrambling. Thus, if English Move-R is QR, it can get across SC-C, but not OC-C/Fin-C, because QR behaves the same way (Baltin 2000, Johnson 2008). If Japanese Move-R is scrambling, it can bring the remnant to the matrix VP across SC-C/OC-C, but not Fin-C, because scrambling behaves the same way as in (6).

Conclusion: We have argued that English and Japanese PG only differ in the identity of Move-R. Given this, our study poses a challenge for Thom's (2016) analysis of English PG. He proposes that, while the remnant must move to TP-internal FocP, its correlate in the antecedent clause must also move to FocP by covert QR, as in (7). Thom attributes QR of the correlate to scope parallelism (SP) in ellipsis, which requires that variables in the antecedent and elided clauses be bound from parallel positions. Thus, as for the impossibility of Move-R across Fin-C (8a), his analysis excludes it as a violation of SP, which is induced by the impossibility of QR of the correlate across Fin-C (8b). Then, if SP is universal, it should also regulate Japanese PG; in Japanese, too, the correlate should undergo covert QR to a parallel position. However, we argue that QR is irrelevant for Japanese PG. In the OC example (9), the embedded quantifier cannot outscope the matrix quantifier, suggesting that QR cannot bring the former to the matrix VP. Then it should be impossible to pseudogap an OC clause, because QR out of it is disallowed, inducing a violation of SP. The fact contrary to this prediction is already shown in (5b). Thus, Thoms's SP is not universal, in the sense that it does not work for the analysis of Japanese PG.
(1) Speaker A: Is she suing the hospital?  
Speaker B: She is sueing the doctor.  
(Halliday and Hassan 1973: 49)

(2) Speaker A: Is she sueing the hospital?  
Speaker B: * Yes, she is sueing the hospital  
(Lasnik 1995: 145)

(3) a. John-wa jitensha-de Kyoto-ni WA it-ta-ga,  
John-Top bicycle-by Kyoto-Dat-Top go-Past-though  
(Tokyo-ni WA) ika-nakat-ta.  
Tokyo-Dat-Top go-Neg-Past  

`John went to Kyoto by bicycle, but he didn't to Tokyo.'

b. John-wa jitensha-de Kyoto-ni it-ta-ga,  
John-Top bicycle-by Kyoto-Dat go-Past-though  
Tom-wa (*jitensha-de) Kyoto-ni ika-nakat-ta.  
Tom-Top Kyoto-Dat go-Neg-Past  

`John went to Kyoto by bicycle, but Tom didn't go to Kyoto.'

(4) a. PG in ENG = Move-R + VPE  
[TP Subject T [XP [vp V-T]]]  
Move-R  

b. PG in JPN = Move-R + VPE (+ V-Raising)  
[TP Subject XP [vp V-T]] V-T]  
Move-R  

(5) a. * John-wa Mary-ga Kyoto-ni WA iku-to it-ta-ga,  
John-Top Mary-Nom Kyoto-Dat-Top go-C say-Past-though  
Mary-ga Tokyo-ni WA iku-to iwa-nakat-ta  
Tokyo-Dat-Top say-Neg-Past  

`John said that Mary would go to Kyoto, but he didn't to Tokyo.'

b. John-wa Mary-ni Kyoto-ni WA iku-yooni tanon-da-ga,  
John-Top Mary-Dat Kyoto-Dat-Top go-C ask-Past-though  
Mary-ni Tokyo-ni WA iku-yooni tanoma-nakat-ta  
Tokyo-Dat-Top ask-Neg-Past  

`John asked Mary to go to Kyoto, but he didn't to Tokyo.'

c. John-wa Mary-to Kyoto-ni WA iko-to kokoRomini-ta-ga,  
John-Top Mary-with Kyoto-Dat-Top go-C try-Past-though  
Mary-to Tokyo-ni WA iko-to kokoRomini-nakat-ta  
Tokyo-Dat-Top try-Neg-Past  

`John tried to go to Kyoto with Mary, but he didn't to Tokyo.'

(6) a. * John-wa Kyoto-ni, Mary-ni [Tom-ga ti iku]-to itta  
John-Top Kyoto-Dat Mary-Dat Tom-Nom go-C said  

`John said to Mary that Tom would go to Kyoto.'

b. John-wa Kyoto-ni, Mary-ni [Tom-to ti iku]-yooni tanonda.  
John-Top Kyoto-Dat Mary-Dat Tom-with go-C asked  

`John asked Mary to go to Kyoto with Tom.'

c. John-wa Kyoto-ni, youki [Tom-to ti ikoø]-to kokoRomima(mono-da).  
John-Top Kyoto-Dat often Tom-with go-C tried  

`John often tried to go to Kyoto with Tom.'

(7) a. QR of the correlate:  
[ she is [Pox the hospital \( \lambda \chi_1 [\text{suing } \chi_1 ] \)]]  
Focus movement of the remnant:  
[ she is [Pox the doctor \( \lambda \chi_2 [\text{suing } \chi_2 ] \)]]

(8) a. Kathy thinks she should study French, but she doesn't like English or German.  

b. Someone thinks you should kiss everyone (`\( \exists > \forall, * \forall > \exists \)\) (Thoms 2016: 294, 7)

John-Top someone-Dat every-place-Dat-also go-C ask-Past  

`John asked someone to go to every place.` (`\( \exists > \forall, * \forall > \exists \)\)

[Day 1 P8]

Korean vowel articulation is not sensitive to phonological neighborhood density
Rory Turnbull1 & Jeffrey J. Holliday2
1 University of Hawai‘i at Mānoa & 2 Korea University

Background. Lexical factors, such as word frequency or predictability, are known to have small but significant effects on speech production in a variety of languages (e.g. Aylett & Turk, 2004; Myers & Li, 2009). One such factor is phonological neighborhood density (PND), a measure of how many neighbors a word has through the substitution, deletion, or insertion of a single phoneme. For example, the English word cat has the neighbors hat (via substitution), cast (via insertion), and at (via deletion), among others. Words with low PND have been reported to have more centralized vowel pronunciations, and shorter vowel and word durations, than words with high PND (Munson & Solomon, 2004; Wright, 2004; Scarborough et al., 2015). More recently, however, it has been questioned whether these effects might arise simply as consequences of the phonetic environments of the target words, which most studies have not carefully controlled (Gahl, 2015). Additionally, data supporting claims of PND effects come only from English and French. Previous research on Korean (Holliday & Turnbull, 2015) failed to find evidence of a duration effect, but did not examine vowel articulation. Thus, the aim of the current study was to test the effect of PND on vowel articulation in Korean, using a carefully selected stimulus set that controls for potential phonetic environment effects.

Method. Twenty native speakers of Seoul Korean produced 28 high-frequency bisyllabic target words in the carrier sentence nayka ___ lako malhanta (“I say ___”). Ninety-two other words were used as fillers. Target words were selected from K-SPAN (Holliday et al., 2017) to comprise 14 high- and low-PND pairs. Table 1 provides a complete list of all targets. The members of each pair had nearly identical initial CVC sequences, ensuring that any observed effects would not be consequences of phonetic environment. Power analysis confirmed that this number of subjects and target words is sufficient to demonstrate an effect of similar magnitude to previously published findings. Estimates of the first and second formant frequency (F1, F2) were made at the midpoint of the vowel from the first syllable of each word. Additionally, vowel duration and f0 (over the first 10 ms of the vowel) were measured.

Results. The data were analyzed with linear mixed effects regression modeling. Vowel centralization was parameterized as Euclidean distance in F2 space from each talker’s mean F2 point. Models were constructed to predict vowel duration, vowel centralization, and vowel f0. Fixed effects of PND, word frequency, and their interaction were included, along with random intercepts of talker and item, with by-talker random slopes of PND and word frequency. For the centralization model, vowel duration was included as a covariate due to the common correlation between these factors (Moon & Lindblom, 1994). No significant effects of any of the fixed effects were observed (all p > .05).

Conclusion. Contrary to previous claims about the effect of PND on vowel articulation in English (Munson & Solomon, 2004; Wright, 2004), the current study failed to find evidence for such effects in Korean, despite having sufficient statistical power and using carefully balanced stimuli. These results therefore suggest that previous findings of PND effects were due to phonetic environment effects, and further call into question the extent to which the concept of PND, as operationalized in studies of English, is meaningful for languages such as Korean. This approach underscores the importance of careful cross-linguistic work in psychophonic theorizing.
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Table 1: List of target word pairs.

References.


Age-graded vowel raising and the linguistic marketplace in Korea
So Young Yi
Hankuk University of Foreign Studies

In colloquial speech of Seoul Korean, /o/ is raised and realized as [u] in constituent-final –ko and –to (Yeon, 2012; Chae, 1995), and this phenomenon is called vowel raising. For example, it is common to say ka-kwu ‘go and’ instead of the standard form ka-ko. Chae (1995) looked into social variables as important factors in the vowel raising, and found that the vowel raising of /o/ in Seoul Korean was a sound change in progress led by younger, female and lower social class speakers in the 1990s. The current study aims at (i) examining how people produce this vowel 20 years after Chae’s (1995) study, focusing mainly on if the vowel raising is still a sound change in apparent time, and (ii) investigating possible alternative explanations if it is not a sound change any more.

Sociolinguistic interviews were conducted with 45 speakers of Seoul Korean, and the participants were divided into different groups according to their age, gender, and social class. A total of 1033 tokens of –ko and –to were collected from the interviews, and in Praat, F1 and F2 values of each vowel were extracted and normalized. The normalized data were fit into linear mixed effects models using the statistical tool R. The results showed that speaker’s age is the only social factor that changes vowel height in the AP-medial position. Among the three age groups, the older group used the most raised vowel \((p < 0.01)\), and there is a tendency that middle-aged group used the most unraised variant as shown in Figure 1.

According to Meyerhoff (2006), if the vowel raising is a generational change, which is change over apparent time, new young generations would adopt vowel raising and use it more and more. Nonetheless, as the interview data show, the younger generation is no longer the group that is using the most raised vowel. Instead, vowel raising seems to be highly influenced by the linguistic marketplace, an important concept for age-grading. People show a higher frequency of using standard variants at a certain age, which is most likely to be the period when they start to take part in the workforce. Although Sankoff and Laberge (1978) identified this age as the late teens and early twenties, this age range does not apply in Korean society. A growing number of people in Korea first enter the workforce in their early 30s (Population Association of Korea, 2010), which therefore is the age at which they might be trying to adjust themselves to a new linguistic marketplace; in other words, the time that they start to use standard variants such as the unraised variant of /o/ in constituent-finals. For this reason, the middle-aged speakers who took part in the interviews would be expected to use the most unraised variant. Moreover, after the working years, when people have retired, their tendency to favor standard variants may be attenuated as they feel less pressure to use standard forms; as expected, therefore, the older group in this study used the most raised variant, which is considered the “not standard” form of /o/.

Furthermore, in the case of a stable variable that is associated with age-grading, one variant does not force out another variant. The raised vowel variant in Korean –ko and –to co-exists with the unraised vowel variant, even though the raised variant is not considered a standard form. The Standard Korean Language Dictionary (2008) also states that the standard form /o/ is commonly replaced by /u/, a raised vowel, in colloquial speech in some circumstances, which implies that both unraised and raised forms have significance in the community. In conclusion, at least in the AP-medial position, vowel raising of /o/ in constituent-final –ko and –to is an age-graded stable variable rather than a generational sound change. It is supported by the idea of linguistic marketplace of Korean society which is different from that of Western Society.
Figure 1. Boxplot of normalized F1 means depending on speaker age group

Note: On the y-axis, the smaller the number is, the more raised the vowel is.

References
Stancetaking in Korean conversation: Maliya construction to accomplish intersubjectivity

An, Hyunjung
University of Hawai‘i at Manoa

Maliya (roughly translated as “I am saying that” or “What I am saying is that”) consists of mal (words), i (copular), and ya (sentence ender), is in an ongoing grammaticalizational path and has developed into a pragmatic marker. Mal (words) has gradually lost its lexical meaning, and grammaticalized into a pragmatic marker, which conveys the speaker’s attitude and stance. It has been reported that indirect speech denotes the speaker’s perspective or attitude toward his/her statement (Li, 1986, as cited in Holt and Clift, 2006). This study examined the cases of maliya used in indirect quotative constructions in which the speakers try to establish intersubjectivity, displaying his/her strong stance.

Maliya portrays a speaker’s epistemic, affiliative, and disaffiliative stances in different sequential contexts, attempting to accomplish intersubjectivity through negotiation between co-participants. The stance marked by maliya differs as to whether the words are quoted in the previous sequence or not, and whose words are quoted in the sequence. A total of 138 occurrences of maliya were identified in the LDC data (Ko et al., 2003), and maliya was deployed to display an epistemic stance (n=10), an affiliative stance (n=62), a disaffiliative stance (n=7), and a literal meaning (n=23), among other uses (n=36).

First, maliya occurs when the speaker urges the recipient to share the same epistemic stance, reproducing the utterance by quoting his/her own statement mentioned in the same or preceding turn. Inasmuch as the speaker plays three roles, i.e., animator, author, and principal concurrently (Goffman, 1981), the speaker marks his strong stance or claims his epistemic authority. Thus, maliya has the effect of emphasizing the speaker’s utterance through repetition to accomplish intersubjectivity when there is an information gap between co-participants. Extract 1 below shows that Ara, who has epistemic authority, urges Bin to share her epistemic stance by restating her previous utterance when Bin has a trouble understanding.

Second, the interlocutor displays an affiliative stance when quoting the counterpart speaker’s statement in the preceding turn, which serves as the common ground that co-participants construct and succeeds in establishing intersubjectivity between co-participants. Citing the other’s utterance as a whole with no change indicates an absolute stance follow (Du Bois, 2007, p. 161), but the degree of the speaker’s affiliation and epistemic authority slightly differs depending on whether it is just a few words or most of the words in the utterance that have been changed.

Third, the speaker displays his/her disaffiliative stance with the other party’s prior utterance, urging him/her to solicit understanding in a forceful way before they establish common ground. The maliya construction with no quotation is employed to respond to the addressee’s assertion without delay, rebutting it straightforwardly and urging the recipient to understand the speaker. As a result, this enforced intersubjectivity can be constructed between two participants, but it is often rejected by the counterpart speaker in the current data. Extract 2 shows the example that the speaker employed maliya to display her strong stance urging the other party to solicit congruent understanding.
Extract 1 [ko_4548, 1:35-2:17]

1 Ara: Kil-ul, kil ul kaluchye cweya tway, wuli-nun, Chonnom-i-lase†.
   Road-AC Road-AC teach:for must we-TOP rusticies-COP-because
   ‘You should give us direction, because we are rusties.’

2 Bin: kunikka olla-nun kil-i mwe-nya-men third-hako, 3-ka-hako
   I mean come up–RL road-NOM what.it.is 3-COM 3-avenue-COM
   ‘I mean, the avenue that takes you up to here is, Third, Third Avenue,’

3  → (0.7), ku, taumey six hako-ka olla wa
   The next 6 COM-NOM come up:IE

4 wi|ccok-u|lo, nith-eyes|pwu|the
   upward-toward bottom-from
   ‘and Sixth will take you up here, come upward from the bottom.’

5 Ara: [kuleni|kka sam|ka-la-nun key, sam pen avenue ya]
   You mean, 3-avenue-so-called 3rd avenue Q
   ‘You mean, Third means Third Avenue? Is that Third Avenue?’

6 [sam avenue e, e.
   3 avenue uh-huh
   ‘Third Avenue. Uh-huh.’

7 Bin: [e, third. third avenue-na ani-|myen six hat|ko-|kule
   Right, 3, 3rd avenue-or NEG-COND 6 COM I mean,
   ‘Right, Third, Third Avenue or Sixth, or take Sixth, I mean,’

8 → wil o|llaw.wa.
   upward come up:IE
   ‘come up the road.’

9 Ara: um. kuey muwang sun soli-ya, [six, six avenue?
   Well. That what sound-Q six, six avenue
   ‘Well. What do you mean? Sixth, Sixth Avenue?’

10 Bin: [ani kuleni|kka kil-i yeki nun
    DM, I mean road-NOM here-TOP
    ‘Well, I mean, the road here is one-way as you know, because this is Manhattan.’

11 ilpan|thonghayng-i-fcanha |Manhatten-i kuleni|kka,
   One way COP-you know Manhattan-NOM I mean,
   ‘Well, I mean, the road here is one-way as you know, because this is Manhattan.’

12 Ara: [f.e e a sam, kuleni|kka third avenue na six avenue
   I see ah 3 I mean, third avenue or six avenue
   ‘I see, Third Avenue or Sixth Avenue.’

13 → Bin: kuleni|kka olla on-ta-n mal-i-ya, kuleni|kka twul
   I mean, come up-DC-RL words-COP-IE I mean two
   ‘I mean, come up the road, maliya. I mean, take either one.’

14 cwungey amwukena tha-ko-se-nun
   out of whatever take-and-after-TOP
   ‘I mean, come up the road, maliya. I mean, take either one.’

15 Ara: fe, e, e al-ass-e, al-ass-e,
   Uh huh know-PST-IE know-PST-IE
   ‘Uh-huh. I got it. I got it.’

Extract 2 [ko_5343 7:58-8:15]

1 Jun: kuntey yeki-nun mwe kulen key eps-e. mwucoken(1.0) camkkamman
   but here-TOP DM such thing not.exist-IE unconditionally wait
   ‘But here, there’s nothing like that. It isn’t flexible at all. Wait a minute.’

2 Mira: ‘ung?
   Uh huh
   ‘All right.’

3 Jun: camkkamman. Apeci-ka sewul-eyse fax-ponay-n ke kath-ketun†.
   Wait father-NOM Seoul-from fax-send-RL thing seem-CORREL
   ‘Just a minute. It seems that my father sent me a fax from Seoul.’

4 Mira: ‘ung?
   Uh huh
   ‘OK.’

5 Jun: ku nay-ka com ista tasi hal- a ney-ka com ista tasi ha-lay?
   DM I-NOM a little later again do ah you-NOM a little later again do-VOL
   ‘I will call you back later again, can you call me back later?’

6 Mira: (a):::: ike kongca-i-ney ike kkunh-umyen incye
   Oh, no! this free-COP-CIRCUM this hang up-COND DM

7 → kkuth-i-la-n mal-i-ya:::=
   end-COP-DC-RL words-COP-IE
   ‘Oh, no. This is a free call, so once I hang up, that’s it, maliya.’

8 Jun: =a kelay kulem kitalyez.
   Ah, all right then wait:IMP
   ‘I see, OK, then wait.’

9 Mira: e, al-ass-e
   Uh huh know-PST-IE
   ‘OK.’

References
Online parsing of Korean reflexive caki: Evidence for direct retrieval of antecedent

Namseok Yong
The Graduate Center - CUNY

Introduction: Reflexives typically co-refer with a local NP (cf. (1)). Several prior studies examined whether such syntactic constraint is the only information available in the initial processing of the reflexive or other non-syntactic sources of information are also available. But, results reported have been mixed: Syntax only [1][2] vs. parallel access model [3]. The present study explores whether animacy manipulation of a grammatically illicit potential antecedent (*PA) causes a change in the online reference resolution of Korean reflexive caki ‘self’. Along with this, we further examine if the locality of a grammatical antecedent (√PA) affects antecedent retrieval and how it interacts with *PA’s animacy. As presented in (2), caki strongly prefers a nonlocal subject antecedent even when a local subject can antecede it [4][5]. This seems somewhat counter-intuitive given previous reports of parsing advantage of a recent lexical target near a retrieval probe [6][7].

Experiment: To examine these issues, a self-paced reading experiment was conducted. As seen in (3a-d), two linguistic aspects of antecedent were manipulated: locality of √PA and animacy of *PA, based on the facts that caki only refers to a 3rd-person, animate antecedent and strongly prefers a nonlocal subject antecedent. Also, two sentences with no *PA (3e-f) were included in each set of experimental stimuli to see whether √PA’s locality influences online reading of caki when the parser need not consider *PA. 24 Korean native speakers (Male=11) were recruited. They were asked to read sentences word-by-word and then to answer subsequent Yes/No comprehension questions.

Results: Mean response accuracy was 82%. All data from one participant were excluded due to low accuracy (<70%). Within-subject statistical analyses of residual RTs were performed for each region of the sentence. In the pre-critical regions (R1~R5; Figure 1), no significant difference in RTs was found across conditions. In the critical region (R6) and the spillover region (R7), no main effect of “locality of √PA” was found (Fs<1). But, there was a significant main effect of “animacy of *PA” (p<.05): caki was read faster when *PA was inanimate than when animate, regardless of √PA’s structural position. No interaction effect in both regions (Fs<1). This suggests that the parser can access/use PA’s animacy feature during the initial parsing stage, contra the prediction of “Syntax only” approach to reflexive reference. The RT latency observed in the animate *PA conditions may result from competition for selection between √PA and *PA that match in animacy (i.e., a type of inhibitory interference). Finally, for sentences with no *PA, the locality manipulation did not induce significant changes in RT in all regions, which further displays no role of locality in the initial processing of caki (Figure 2).

Conclusion: The present study revealed no effect of PA locality but significant main effect of *PA’s animacy in caki’s reference resolution, indicating that caki initially accesses non-syntactic cue(s) in retrieving its antecedent. Moreover, this further suggests that, using various syntactic and non-syntactic cues, caki “directly” retrieves its antecedent from memory, which can be nicely captured by the direct content-addressable memory model [8].
John said that Tom hated himself.

John-un Tom-j caki-o-lul silhehassta-ko malhassta.

‘John said that Tom hated self.’

(3) a. [statementi-TOP | [lawyerj-NOM | murdererk-NOM | be revealed | when | selfijik-GEN | client-ACC | emotionally | shriveled-COMP | pointed out] Local √PA/Animate *PA

‘The statement pointed out that the lawyer made self’s client emotionally withdrawn when the murderer was revealed.’

b. [statementi-TOP | [lawyerj-NOM | murdererk-NOM | be revealed | when | selfijik-GEN | client-ACC | emotionally | shriveled-COMP | pointed out] Local √PA/Inanimate *PA

‘The statement pointed out that the lawyer made self’s client emotionally withdrawn when the murderer was revealed.’

c. [lawyeri-TOP | [statementj-NOM | murdererk-NOM | be revealed | when | selfijik-GEN | client-ACC | emotionally | shriveled-COMP | pointed out] Nonlocal √PA/Animate *PA

‘The lawyer pointed out that the statement made self’s client emotionally withdrawn when the murderer was revealed.’

d. [lawyeri-TOP | [statementj-NOM | murdererk-NOM | be revealed | when | selfijik-GEN | client-ACC | emotionally | shriveled-COMP | pointed out] Nonlocal √PA/Inanimate *PA

‘The lawyer pointed out that the statement made self’s client emotionally withdrawn when the murderer was revealed.’

e. [statementi-TOP | [lawyerj-NOM | selfij-GEN | client-ACC | emotionally | shriveled-COMP | pointed out] Local √PA (No *PA)

‘The statement pointed out that the lawyer made self’s client emotionally withdrawn’

f. [lawyeri-TOP | [statementj-NOM | selfij-GEN | client-ACC | emotionally | shriveled-COMP | pointed out] Nonlocal √PA (No *PA)

‘The lawyer pointed out that the statement made self’s client emotionally withdrawn.’

On Discourse Effects of Biased Questions in Japanese

Hitomi Hirayama
UC Santa Cruz

I. Introduction. Biased questions are very common cross-linguistically (Farkas and Roelofsen (2017), Gyuris (2016), a.o.). Japanese is not an exception and has a variety of biased questions (Ito and Oshima 2014, Sudo 2013). Building on previous work, this paper aims to achieve two goals. First, I will slightly modify Sudo (2013)’s analysis and propose discourse effects of outer negation questions (ONQs): (1) and no(da) questions (no-Qs): (2). Second, I will show that the discourse effects of biased questions with multiple particles can be derived compositionally. This analysis can also derive possible combinations of discourse particles in (3).

II. Discourse effects of outer negation and no(da).
1. ONQs: The Japanese negative morpheme nai can be used as inner or outer negation (Ito and Oshima 2014). When outer negation is used in the question, it conveys a positive bias toward the sentence radical. I modify the account in Sudo (2013) and claim that positive bias is necessary (indicated by +positive in Table 1) besides the neutral contextual evidence (-positive & -negative in Table 1). Here, a private bias is only accessible to the speaker, and the contextual evidence is available for all discourse participants.

2. no(da): According to Ijima (2010), no(da) marks information that is new to the speaker. Thus, p-no(da) in declaratives signals the speaker has just become aware that p is true. With no-Qs, the effects remain the same: no-Qs indicate that positive contextual evidence is necessary. The speaker has a positive bias toward p based on the available contextual evidence.

The comparison of polar interrogatives and the two discussed above is in Table 1.

III. Combinations of particles. Now we can predict all the possible combinations of no(da) and nai, and also their discourse effects. The interpretation of nai depends on how it is combined with no(da) as shown in (3) (Ito and Oshima 2014).

For instance, the unavailability of outer negation in (3a) can be obtained in the following way. If the outer negation interpretation were available, the whole discourse effects would be that there is contextual evidence that the speaker has a private bias for p. This contradicts with a definition of a private bias, which is only available to the speaker.

By contrast, when noda precedes nai, nai can be interpreted as outer negation. [[p-noda]-nai]OUT] questions suggest that the speaker thinks there is contextual evidence that supports p, which leads her to have moderate to high credence in p.

We can get the discourse effects of complex patterns as in (3c) in the same way: Both interpretations are possible since neither brings inconsistency. Table 2 illustrates that different combinations indicate different information on contextual evidence and epistemic bias.

IV. Conclusion. On the empirical side, the paper gives a compositional account of a group of biased questions in Japanese and predicts the available particle combinations and their interpretation. On the theoretical side, it shows the need to allow context structures to make subtle distinctions in terms of the nature of the evidence for a particular bias.
(1) a. Ima, ame hutte nai?
   now rain fall nai\textsubscript{OUT}‘It is raining now, isn’t it?’

b. Un, futteru yo.
   yes raining
   ‘Yes, it is raining.’

(2) Ima, ame hutteru no?
   now rain falling NO\textsubscript{DA}‘(Wow,) is it raining now?’

Table 1: Polar interrogative (PI) versus ONQ versus no-Q

<table>
<thead>
<tr>
<th>Q-type</th>
<th>Contextual Evidence</th>
<th>Private Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>-negative &amp; -positive</td>
<td>none</td>
</tr>
<tr>
<td>ONQ</td>
<td>-negative &amp; -positive</td>
<td>+ positive</td>
</tr>
<tr>
<td>no-Q</td>
<td>+ positive</td>
<td>+ positive</td>
</tr>
</tbody>
</table>

(3) Possible combination of nai + (no)da and interpretations:
   a. nai + noda → nai\textsubscript{IN} + noda [inner negation interpretation only]
   b. noda + nai → noda + nai\textsubscript{OUT} [outer negation interpretation only]
   c. noda + nai + noda → noda + nai\textsubscript{IN/OUT} + noda [Both interpretations are available]

Table 2: Questions and their discourse effects

<table>
<thead>
<tr>
<th>Q-type</th>
<th>Contextual Evidence</th>
<th>Private Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>-negative &amp; -positive</td>
<td>-negative &amp; -positive</td>
</tr>
<tr>
<td>no-Q</td>
<td>+positive</td>
<td>+positive</td>
</tr>
<tr>
<td>ONQ</td>
<td>-negative &amp; -positive</td>
<td>+ positive</td>
</tr>
<tr>
<td>nai\textsubscript{IN}+no-Q</td>
<td>+negative</td>
<td>+negative</td>
</tr>
<tr>
<td>noda+ nai\textsubscript{OUT} Q</td>
<td>-negative &amp; -positive</td>
<td>+ positive (moderate to high credence)</td>
</tr>
<tr>
<td>noda+nai\textsubscript{OUT}+no-Q</td>
<td>+positive</td>
<td>+ positive (moderate to high credence)</td>
</tr>
<tr>
<td>noda+nai\textsubscript{IN}+no-Q</td>
<td>+negative</td>
<td>+ positive (moderate to high credence)</td>
</tr>
</tbody>
</table>

References


The social meaning and function of the Korean subject honorific suffix –(u)si

Sang-Seok Yoon
University of Iowa

The honorific suffix –(u)si is known to indicate the speaker's respect or deference for the person referred to/being talked about. It is generally regarded that –(u)si is attached to the predicate when the subject deserves deference from the speaker, and this phenomenon is generally called “honorific agreement.”

There have been many discussions on –(u)si, which include whether honorific agreement is a grammatical rule or a sociolinguistic phenomenon, and how to explain when an NP that triggers the use of –(u)si is not the subject of the sentence (e.g. Choe 2004, Choi 2010, Lee 2005, Mok 2013, Sohn 2013). There have been many interesting studies about the syntactic and sociolinguistic characteristics of –(u)si, but its social meanings and functions in real conversations have not received a lot of attention. The meaning of –(u)si has not been explained more than “expressing respect or deference to the referent,” even though there are many subtle social meanings of –(u)si.

Therefore, this study will investigate how –(u)si is used in real conversations from the perspective of indexicality. Indexicality concerns how to relate linguistic form to social meanings in a given context (Ochs 1990, 1993; Silverstein 1976). Following the indexical view, this study will analyze the use of –(u)si in various genres of television show conversations (e.g. news, debates, talk shows, and comedy shows).

This study will first discuss speakers’ strategic use of –(u)si. In complex sentences or sentences with auxiliary structures, there are multiple places where –(u)si can be attached. However, speakers do not use –(u)si in every possible place, but they selectively use it to regulate their psychological attitudes to the addressee or referent. Especially when the referent and the addressee are the same person, combinations of honorific sentence endings (i.e. –eyo/ayo and -(su)pnita) and -(u)si lead to variations in the degree of a speaker’s honorific intention (Oh 2010).

In the data for this study, –(u)si is found to be related to the role of the speaker at the moment. For example, the talk show hosts tend to use more –(u)si to audience or guests when they perform their role as an emcee (Ex 1), but they may use it less frequently during casual conversation (Ex 2). Also, it appears that –(u)si is more frequently used when the speaker talks about the referent putting some psychological distance. For example, the use of –(u)si is found more often when they talk about someone who is not present than someone who is present (Ex 3).

This study argues that –(u)si is not merely an honorific/deference marker, but the core function of -(u)si is indexing a speaker’s ceremonial stance to the given situation and the psychological distance from the action or state related to the referent. This study further argues that the use of –(u)si mostly depends on the speaker’s strategic choice and psychological stance.
Data

(Ex1) From the talk show opening remark by the emcee

\begin{verbatim}
onul hanpen thukpyelhan nukkim-ulc caymiiss-nun syo po-si-ko
\end{verbatim}

today once special feeling-by exciting-Rl* show watch-SH-and

\begin{verbatim}
kipwun cohkey tolaka-si-ess-umyen coh-kess-eyo
feeling well go back-SH-Pst-if good-will-Pol
\end{verbatim}

‘Today, I hope you will watch this exciting show with special feeling and go back pleasantly.’

(Ex2) Talk show emcee having a conversation with a guest. (The “Ø” marked positions are possible positions for using –(u)si.)

\begin{verbatim}
hay.oy hwaltong ha-Ø-myense kacang kuliwu-Ø-ess-ten-key
overseas activity do-Ø-while most miss-Ø-Pst-Rt-thing
mwe-ka iss-Ø-eyo?
what-Nom have-Ø-Pol
\end{verbatim}

‘While working overseas, what did you miss the most?’

(Ex3) A guest is talking about her parents.

\begin{verbatim}
emenim apenim hanthey icye com ssu-si-ko sa-si-eto
mother father to now a little use-SH-and live-SH-even so
\end{verbatim}

\begin{verbatim}
toy-nita-ko kuntey an ssu-si-eyo
okay-Dc-Qt but not use-SH-Pol
\end{verbatim}

I am telling my mother and father now that they can spend more, but they don’t spend.

*Rl-relativiser suffix, SH-subject honorific suffix, Pst-past tense suffix, Pol-polite sentence ending, Rt- Retrospective mood suffix, Nom-nominative case marker, Dc-declarative sentence ending, Qt-quotative particle

References


Quantificational expressions in Japanese can be expressed in many forms and two of them contain a linker-like element no, which also appears as a genitive marker, as in (1a) and (1b). Sauerland & Yatsushiro (2004; S&Y hereafter) have advanced a unified treatment of no in (1a, b), assuming that (1b) -- a reverse partitive in S&Y's terms -- is derived from (1a) by adjoining #-CL or QP to the left of NP (no is a partitive no, which denotes a part relation). In contrast to S&Y, this talk shows that various properties of (1a&b) are better captured by assigning them different underlying structures: while (1a) is a partitive containing 2 NPs including a silent PartN, (1b) is not. Attributive vs. predicative uses of #CL/QP also play an important role.

Not requiring plural marking on common nouns, Japanese hon can be interpreted either as a singular or plural noun ‘book(s).’ Thus, QPs like (2a) are ambiguous with readings (i) and (ii). The puzzle is that (2b) is not ambiguous: hon must be understood as plural books. Why does such a contrast arise if (2b) is derived from (2a)? S&Y propose that in (2a) silent PartN can be understood as CONTENT or BOOKS while in (2b), PartN is overt and a CONTENT reading is unavailable. Although their account successfully explains this contrast, many problems remain.

**S&Y’s Problems:** First of all, (1b) being a partitive is counterintuitive to native ears. When presented out of the blue, (1a) presupposes the availability of more than 3 books, while (1b) does not. In fact, (1b) is felicitous in context where only 3 books are available. (4) is a counterexample to Baker’s proper partitivity (1998): it is strange if Ken has more than 3 daughters. Further, the silent whole noun in reverse partitives, if it exists at all, can never be independently modified. In (5a), the 2 NPs can be independently modified by different numbers (2, 10). However, moving [2-CL] to derive a reverse partitive results in ungrammaticality, as in (5b). Thus, there is no evidence of a silent WholeNP in reverse partitives.

**Proposal:** Although agreeing with S&Y that (1a)-type partitives involve 2 NPs, my proposal differs from theirs in terms of the structure of (1b) and the nature of no. As for no, I adopt Ishizuka & Koopman’s (2016: I&K hereafter) proposal that no is a type of D selecting a reduced relative CP ([D CP] Kayne 1994) as its complement and requiring a nominal specifier (this results in predicate inversion). Their motivation for the reduced relative analysis comes from (6a&b): like Thai ข้าพเจ้า and French de, no requires a contrastive interpretation and cannot be used when alternative choices are unavailable. I&K take this ‘contrastive focus’ property as evidence for no-phrase being reduced relatives. Significantly, I found the similar contrast with ‘moon’ vs. ‘star’, as in (7) (the number of ‘moon’ is always ‘one’, unlike stars), and conclude that no in (1b) is the same no in (6a). A subject relativization followed by a predicate inversion yields canonical QPs, as (8a) shows. A question is where the ‘part of’ interpretation in (1a) comes from. Extending I&K’s idea to partitives that the semantic diversity of no-phrases comes from a set of silent elementary predicates contained (e.g., AT, TO, FOR, IN), my proposal is that partitives like (1a) contain silent predicate AMONG (see 8b). Support for this comes from Mandarin Taiwanese: Mandarin uses linker ‘de’ in partitives, but the predicate is overt: shù zhong de sān běn ‘book AMONG DE 3 CL’ ‘three of the books’. This suggests that languages differ in the inventory of silent predicates (e.g., English clearly allows silent AMONG).

Lastly, under the proposed analysis, the contrast observed with hotondo ‘most’ in (2a,b) comes from the fact that hotondo is used attributively in (2a), while predicatively in (2b). When used attributively, hotondo licenses silent BOOKS and CONTENT, as in (9a). In contrast, as shown in (9b), it is only predicated of its subject hon ‘books’, when used predicatively.

The proposed analysis not only unifies Japanese no in modifier and QP contexts, but paves the way to understand the crosslinguistic distribution of linker-like elements in partitives.
Data

(1) a. NP no \{#-CL/QP\} (e.g., hon no san-satu, ‘3 of the books’) 
b. \{#-CL/QP\} no NP (e.g., san-satu no hon, ‘3 books’) 

(2) a. hon-no hotondo
   book-NO most
   i) ‘most of the books’  ii) ‘most (content) of the book’ (i.e., a mass partitive)

(3) a. [[book\_whole-no CONTENT\_part], [most t_i Q], [Case]]
   (silent NPs are in small caps)
   i) ‘most of the books’
   ii) ‘most (content) of the book’

(4) Ken-no san-nin-no musume-wa bengosi-da.
   Ken-NO 3-CL-NO daughter-TOP lawyer-COP
   ‘Ken’s three daughters are lawyers.’

Structure: Ken’s [[3 t_i CL], [KEN’S DAUGHTERS], no daughter, t_j]

(5) a. [zyu-satu BOOK], [ni t_i satu] o yonda.
   10-CL NO 2 CL ACC read
   ‘2 of (the) 10 (books)’

b. [ni t_i satu], j (no) [ZYU-SATU no hon], t_j,K
   2-CL 10-CL NO book
   ‘2 books’

(6) a. (i) ao-no \{seeta/*sora\} (ii) siro-no \{kooto/*yuki\}
   blue-no \{sweater/*sky\}  white-no \{coat/*snow\}
   ‘blue \{sweater/*sky\}’  ‘white \{coat/*snow\}’

b. (i) aoi \{seeta/sora\} (ii) siroi \{kooto/yuki\} ⇒No contrast with color adjectives.

(7) Konya-wa {tuki hito-tu/hito-tu-no \{*tuki/hosi\}} no mi-e-nai.
   tonight-TOP \{moon 1-CL /1-CL-NO \{moon/star\}\} also cannot see
   Lit. ‘(We) cannot see even one \{moon/star\}.’

(8) a. [t_i san-satu], j no \{hon, san-satu\}
   3-CL no book
   ‘3 books (lit. books that are 3)’

b. [t_i AMONG hon], j no \{BOOK\}, AMONG \{BOOK\}, \{AMONG hon\} san-satu
   AMONG book NO 3-CL
   ‘3 of the books (lit. 3 (books) that are (among) the books)’

(9) a. “Kinoo katta hon yonda?”  “Hotondo.”
   ‘Did you read the book (you) bought yesterday?’  ‘Most (content/books)’

b. “Utyu-ni kansuru hon-wa?”  “Soko no hon-ga hotondo-da.”
   universe-DAT concerning book-TOP there no book-NOM most-COP
   ‘(Where are) the books about the universe?’ Lit. ‘The book over there are most.’

Selected References:
**What can save adjuncts?**

Akihiko Arano
University of Connecticut

**Synopsis:** Long-distance (LD) scrambling of ‘true adjuncts’ is illicit in Japanese on its own, but it becomes acceptable when accompanied by another scrambling of arguments, as shown in (1). This paper investigates what types of movement can show this additional scrambling effect (ASE). It is argued that the ASE is best accounted for by the vP-fronting approach (Koizumi 2000).

**Boeckx&Sugisaki’s clause-mate condition:** Boeckx&Sugisaki (1998) argue for the clause-mate condition on the ASE based on (2). In (2), an accusative object has LD-scrambled from the most embedded clause. Logically speaking, there are three possibilities for the original site of an adjunct, as shown in readings (i)-(iii). (2) allows the readings (i) and (iii), but not (ii). (i) is available since it doesn’t involve LD-scrambling of the adjunct. The contrast between (ii) and (iii) then indicates ASEs arise if an argument and an adjunct originate in the same finite clause.

**Additional data:** (3) shows ASEs are observed for an argument and an adjunct which originate in the same non-finite clause. (4) is a counterpart of (2) with reading (ii) which involves a non-finite clause. It is acceptable, i.e., the clause-mate condition doesn’t hold if a lower clause is non-finite, and arguments originate lower than adjuncts. Consider next cases where adjuncts originate lower than arguments. (5) and (6) show scrambling of higher arguments cannot save LD-scrambling of adjuncts out of finite, or non-finite clauses. The patterns on ASEs are summarized in (7)-(9).

**Analysis:** I argue these properties of ASEs are predicted by the vP-fronting analysis. Koizumi (2000) argues that due to overt V-raising out of vP, a constituent that contains internal arguments and adjuncts, but not the verb, can be formed in Japanese. ASEs arise when there is scrambling of vP that contains an argument and an adjunct, as illustrated in (10). This approach predicts ASEs arise only when an argument and an adjunct can be within the same vP. Given this, consider (11). It shows only arguments from non-finite clauses can follow matrix subjects via scrambling. I take these facts as evidence that only arguments from non-finite clauses can land in the edge of vP. Then, (4) can be derived as in (12). (12a) illustrates vP that takes an Obj$_2$ and a non-finite clause complement, within which an Obj$_1$ has moved to the edge. The Obj$_1$ then moves to the vP-edge in (12b). In (12c), the non-finite clause and Obj$_2$ move above the adjunct. Finally, in (12d), V move outside of vP. As a result of these movements, we get the boxed vP that contains the Obj$_1$ and the adjunct. By moving this vP, we can derive (4). Note that for this derivation to be possible, the step in (12b) is crucial. If a phrase from a lower clause cannot land in the vP-edge, we cannot get the vP that contains that phrase and another phrase. Since, in (11), we have seen only arguments from non-finite clauses can land in the vP-edge, the vP-fronting analysis correctly predicts only they show ASEs.
(1) a. *[Riyuu-mo naku]_1 Ken-ga [Mari-ga t_1 booru-o nageta to] itta.
    reason-even without K.-NOM M.-NOM ball-ACC threw that said
    ‘lit. Without any reason_1, Ken said [that Mari threw the ball t_1].’

b. *[Riyuu-mo naku], booru-o_2 Ken-ga [Mari-ga t_1 t_2 nageta to] itta.
    ‘lit. Without any reason_1 the ball_2, Ken said [that Mari threw t_2 t_1].’

(2) [Riyuu-mo naku]_[i,ii,iii] [sono setu-o]_1 John-ga t_i [Mary-ga t_ii [Bill-ga t_iii t_1 shinzita
    reason-even without that theory-ACC J.-NOM M.-NOM B.-NOM believed
    to] omotta to] syutyousita.
    that thought that claimed
    ‘lit. [Without any reason]_[i,ii,iii] [that theory]_1, J. claimed t_i [M. thought t_ii [B. believed t_iii t_1]].’

(3) a. *[Riyuu-mo naku]_1 John-ga Mary-ni [t_1 doa-o simeru yooni] tanonda.
    reason-even without J.-NOM M.-DAT door-ACC close
    asked
    ‘Without any reason_1, John asked Mary [to close the door t_1].’

b. *[Riyuu-mo naku], doa-o_2 John-ga Mary-ni [t_1 t_2 simeru yooni] tanonda.
    ‘lit. Without any reason_1 the door_2, John asked Mary [to close t_2 t_1].’

(4) [Riyuu-mo naku]_[2] [kono hon-o]_1 Bill-ga [John-ga t_2 Mary-ni [t_1 yoru yooni] tanonda
    reason-even without this book-ACC B.-NOM J.-NOM M.-DAT read asked
    to] itta.
    that said
    ‘lit. Without any reason_2 this book_1, Bill said that John t_2 asked Mary to read t_1.’

(5) *[Riyuu-mo naku]_1 Bill-ni_2 John-ga t_2 [Mary-ga t_1 doa-o simeta to] itta.
    reason-even without B.-DAT J.-NOM M.-NOM door-ACC closed that said
    ‘lit. Without any reason_1 to Bill_2, John said t_2 [that Mary closed the door t_1].’

(6) *[Riyuu-mo naku]_1 Mary-ni_2 John-ga t_2 [t_1 doa-o simeru yooni] tanonda.
    reason-even without M.-DAT J.-NOM door-ACC close
    asked
    ‘lit. Without any reason_1 Mary_2, John asked t_2 [to close the door t_1].’

(7) Arguments and adjuncts (8) Higher arguments
    within the same clause
    and lower adjuncts
    and higher adjuncts

    [CP ... [XP ... Arg Adj]]  [CP Arg [XP ... Adj]]  [CP [CP ... Adj [XP ... Arg]]]

    XP: FIN CP  ✓ (1b)  XP: FIN CP  ✗ (5)  XP: FIN CP  ✗ (2ii)
    XP: N-FIN CP  ✓ (3b)  XP: N-FIN CP  ✗ (6)  XP: N-FIN CP  ✓ (4)

(10) a. [Subj [vP Adj DO V T] b. [Subj [vP Adj DO tv] V+T] c. [[vP Adj DO tv] [Subj tvP V+T]]

(11) a. ??John-ga [sono hon-o]_1 minna-ni [Mary-ga t_1 motteriiru to] itta.
    J.-NOM that book-ACC everyone-DAT M.-NOM have that said
    ‘lit. John, that book_1, said to everyone that Mary has t_1.’
    (Saito 1985:267)

b. Mary-ga [sono hon-o]_1 Bill-ni_2 [t_1 yoru yooni] itta.
    M.-NOM that book-ACC B.-DAT read, said
    ‘lit. John, that book_1, asked Mary to read t_2.’
    (Saito 1985:225)

c. *John-ga [riyou-mo naku]_1 minna-ni [Mary-ga t_1 doa-o simeta to] itta.
    J.-NOM reason-even without everyone-DAT M.-NOM door-ACC closed that said
    ‘lit. John, without any reason_1, said to everyone [that Mary closed the door t_1].’
    (Saito 1985:225)

d. *John-ga [riyou-mo naku]_1 Mary-ni_2 [t_1 doa-o simeru yooni] tanonda.
    J.-NOM reason-even without M.-DAT door-ACC close
    asked
    ‘lit. John, without any reason_1, asked Mary [to close the door t_1].’

(12) a. [vP Adj [vP Obj2 [CP Obj1 ... tObj1] V] b. [vP Adj Obj1 [vP Obj2 [CP tObj1 ... tV] V+V]
    c. [vP Obj2 [CP tObj1 ... ]] [vP Adj Obj1 [vP tObj2, tCP tV] V+V]]
    d. [TP [vP Obj1 [CP tObj2, tCP tV]] [vP Adj Obj2 [CP tObj3, tCP tV, tV]] V+V+T]

String vacuous overt verb raising. JEAL 9.
This paper investigates the syntax of *kara-made* ‘from-to’ PPs in Japanese. At first glance, ‘A-*kara* B-made’ seems unambiguous. However, different syntactic tests show that there exist two distinct structures. Following the insight of Williams (1994) on English *from-to* PPs, I show that some *kara-made* PPs must appear as a single constituent, while others can appear either separately or stacked together.

Williams notes that *from-to path* PPs in English like ‘John played the banjo *from Alabama to Louisiana*’ form a constituent, as topicalization is possible ‘*[From Alabama to Louisiana], John played the banjo*’ (cf. ‘*[To Mary for Bill] I gave a book*’). I claim that Japanese also has this type of complex PPs (1), denoting some *range/scale*. First, though a part of ordinary *kara-made* PPs can stand alone in (2), this is not the case in (3) and (4). Second, either NP-*kara* or NP-*made* can be scrambled in the case of ordinary PPs in (5). This sharply contrasts with the stacked PPs in (6) and (7), in which scrambling of either PP is prohibited. Unless *kara-made* scrambled together as in (6d) and (7d), the sentences become ungrammatical in (6b-c) and (7b-c). Lastly, unlike the ordinary PPs in (8), the stacked ones do not tolerate (pseudo-)-clefts in (9) and (10). Again, unless clefted together in (9c) and (10c) stacked PPs end up ungrammatical in (9a-b) and (10a-b).

We have seen that Japanese stacked PPs are syntactically inseparable. Then, we expect that the ordinary and the stacked PPs have different syntactic structures. I propose that stacked PPs form a constituent before they merge to verbal projection in (11), in which PP/PP mutually c-command each other.

The stacked PPs do not tolerate *no*-marking on NP-*kara* in (13b), unlike (13a). The contrast naturally follows from the structural differences in (11) and (12). It has been assumed that genitive phrases are immediately dominated by a noun phrase (Saito 1982). PP/NP-*kara* is immediately dominated by N’ in (12), but this is not the case with the stacked PPs in (11); hence *-no* is not assigned in (13b). The analysis also explains the optionality of *no-* in (14b). Although it is obligatory with a single PP (14a), *-no* is optional on NP-*kara* in stacked PPs. If (14b) is ambiguous between (11) and (12), in that it denotes a *path* (11), or a *source/a goal* separately (12), *-no* can be assigned when it has the structure in (12).
(1a) Demotai-ga [kodomo-kara otona-made] koosinsi-tei-ta. (non-argument)

Lit. ‘Demonstrators, from children to adults, were marching’

b. Kabunusi-ga [kogaisya-kara oyagaisya-made]-o uttae-ta (argument)

Lit. ‘Stockholders sued from subsidiaries to the parent firm.’

(2a) Taro-ga Tokyo-kara Osaka-made basu-ni not-ta.

‘Taro took a bus from Tokyo to Osaka.’

b. Taro-ga Tokyo-kara basu-ni not-ta.

c. Taro-ga Osaka-made basu-ni not-ta.

(3a) *Demotai-ga kodomo-kara koosinsi-tei-ta.


c. *Otona-made

(4a) *Kabunusi-ga kogaisya-kara-o uttae-ta.

b. ??Kabunusi-ga oyagaisya-made-outtae-ta. (=2b)

d. [Kogaisya-kara oyagaisya-made]

c. *Oyagaisya-made

b. Tokyo-kara Osaka-made basu-ni not-ta.

‘The ride of the bus from Tokyo to Osaka.’


c. *Otona-made

b. *Kabunusi-ga kogaisya-kara(-o) uttae-ta no-wa oyagaisya-made(-o) da.

c. Kabunusi-ga uttae-ta no-wa [kogaisya-kara oyagaisya-made(-o)] da.

(11) \( \text{PP}_1 \) \( \text{PP}_2 \) \( \text{NP}_1 \) \( \text{NP}_2 \) \( \text{mader}_2 \)

(12) Ordinary \( \text{PPs} \) \( \text{N’/V’} \)

(13a) Tokyo-kara-no Osaka-made-no basu-no joosya.

‘The ride of the bus from Tokyo to Osaka.’

b. Kabunusi-niyoru kogaisya-kara(*-no) oyagaisya-made-no hihan stockholder-by subsidiary-from-GEN parent.firm-to-GEN criticism

Lit. ‘The criticism of stockholders to from subsidiaries to the parent firm.’

(14a) Tokyo-kara(-no) basu-no joosya.

‘The ride of the bus from Tokyo.’

b. Tokyo-kara(-no) Osaka-made-no basu-no joosya.

c. Tokyo-kara(-no) Osaka-made-no basu-no joosya.

‘The ride of the bus from Tokyo to Osaka.’


Semantic specification and syntactic distribution of ideophones in Japanese and Korean

Jiyeon Park
Nagoya University

1. Introduction
This paper investigates the relationship between syntactic-grammatical distribution and semantic features in Japanese and Korean ideophones. In both languages, ideophones typically function as adverbs (Hamano 1998; Chae 1993), although they can also function as verbs and adjectives. However, in both Japanese and Korean some ideophones can function only as adverbs. Regarding the possibility of verbalization, this has been discussed with regard to iconicity (Akita 2009) and frequency of use (Dingemanse 2011). However, previous studies do not cover ‘only-adverbial’ usage (e.g., Sora-ni kumo-ga pukapuka {ukan-de/*si-te/*it-te} i-ru. (J) ‘Clouds are floating in the sky.’), and ‘deideophonisation’ (e.g., Pi-ey humpek cyec-ess-ta. (K) ‘[I] got wet through in the rain.’). This paper proposes an approach to the possibility of ideophone verbalization with SEMANTIC SPECIFICITY (a further specified version of verb frame; Akita 2012, 2013). Furthermore, we suggest a mapping model of syntactic-grammatical distribution and semantic properties in Japanese and Korean ideophones (Croft 2002; Haspelmath 2003).

2. Data & analysis
I investigated the object of 687 Japanese ideophones (Atoda & Hoshino 1993), and 4,849 Korean ideophones (Standard Korean Dictionary, National Institute of Korean Language), then classified the data into three categories: [+verbalization], [-verbalization {‘only-adverbial’, ‘deideophonisation’}]. Analysis was based on the range of verbalization in Japanese and Korean (Park 2017), and strength of collocation (t-score) [ideophone-host verb] construction in corpora data.

3. Proposals
As shown in figure 1, in both languages both high and low semantic specificity classes cannot construct predicative forms. In verbalization, Korean ideophones show a wider range of coverage (93%: 4,521/4,849) than Japanese ideophones (65%: 449/687).

(1) [-Verbalization] ‘only-adverbial’: High semantic specificity prevents verbalization. For instance, it indicates the specific manner of walking (8 items), speaking (25 items) in Japanese and a movement (12 items) in Korean. Moreover, I found idiomatic expressions in relation to cognitive states and in conventionalized expressions in Korean. It shows strong collocative relationships with a host verb, revealing a significant t-score in corpora data (e.g., sutasuta ‘briskly’ x aruku ‘walk’ = 6.55 (J)). It leads them to form inheritance relationships with certain verbs, and they are consequently used as adverbs that modify of host verbs.

(2) [+Verbalization]: From the perspective of semantic specificity, compared to (1), ideophones which describe the whole event can construct predicative forms. However, Japanese and Korean show different distribution of their verbalization patterns and range in the context of dummy verbs and verbalizer suffixes. Japanese ideophones combine with a quotative verb iu ‘say’, a dummy verb suru ‘do’ and copula ‘da’. Korean ideophones combine with verbalizer suffixes hata ‘do/be’, kelita/tayta/ita ‘keep doing’.

(3) [-Verbalization] ‘deideophonisation’: The class with low semantic specificity also cannot be verbalized. They indicate a degree (J: 63 items, K: 48 items) and a frequency (J: 4 items, K: 2 items). Adverbs of degree indicate the intensity and depth of an action, Adverbs of frequency indicate how often an event happens (Nita 2002; Seo 2005). In this way, they collocate with various verbs, they are undergoing a process called ‘deideophonisation’.

4. Implications
This paper shows that semantic specification may be applied to the explanation of systematic-integration (Dingemanse 2017) which could facilitate extensive, inclusive explanation of syntactic-grammatical distribution in Japanese and Korean ideophones.
Selected references
This poster discusses morphological causatives in Japanese and Korean, which are formed productively (at least to some extent) with regular morphology, -(s)ase or -Ci, respectively. We attempt to give a purely syntactic analysis of the relevant phenomena contra Horváth and Siloni (2011). Specifically, we suggest that (i) -(s)ase and -Ci are morphological realizations of the head, Caus(e) (Pylkkänen, 2008), and that (ii) the similarities and differences between Japanese and Korean arise due mainly to their different selectional properties of Caus. If Caus in Japanese and Korean selects TP and VoiceP, respectively, then the patterns shown in the two languages will follow straightforwardly.

First, Japanese allows the negation marker to come between the verb and the causative morpheme as in (1a–b); but in Korean, the negation marker can appear only after the causative morpheme as in (2a–b). Under the proposed approach, this follows from the common view that Japanese and Korean do not have constituent negation and that NegP occupies a position below TP: the causative in Japanese, but not in Korean, provides a position for Neg below CausP. Another difference between the two languages involves the scopes of subject-oriented adverbials. In Japanese (3), the adverbial for ‘without hesitation’ may modify either the causer or the causee; but in Korean (4), the adverbial for ‘deliberately’ can modify only the causer. If subject-oriented adverbials modify an entity in Spec,TP, as its name suggests, then the difference follows: the causative in Japanese involves two TPs where each of the causer and causee occupies higher and lower Spec,TP, respectively; whereas, the causative in Korean involves only one TP, whose specifier position is occupied by the causer, not by the causee. As for the Binding Condition B effects, in Japanese, the pronominal object may be bound by the causer though not by the causee as in (5); in Korean, it can be bound by neither the causer nor the causee as in (6). If the binding domain is TP, then the causer in Japanese, but not in Korean, belongs to the binding domain distinct from the one to which the pronominal object belongs. Therefore, only the causative in Japanese allows the pronominal object to be bound by the causer. Lastly, the contrasting coordination facts under the scope of Caus shown in (7–8) can be attributed to the different morphological properties of Caus. In Korean, Caus is part of the domain where the allomorphic conditioning takes place in that the form of Caus is determined by the stem verb (e.g. mek-i- ‘eat-Caus-’ vs. kkay-wu- ‘wake-Caus-’). What this implies is that in order for Caus to have a morphological form, it must be adjacent to the stem verb. Coordinating VoiceP under the scope of CausP in Korean, therefore, will be ruled out for morphological reasons as illustrated in (9a–b). In Japanese, the form of Caus is invariably -(s)ase, which means Caus is not part of the allomorphic domain of any sort. Therefore, coordination is possible under the scope of Caus.
Note: Japanese examples (1a–b), (3), and (5) are from Horváth and Siloni (2011); and example (7) is modified from Kuroda (2003). The rest are Korean examples.

(1) a. Toru-wa Yoko-o ik-ase-nakat-ta.
   Toru-Top Yoko-Acc go-Caus-Neg-Pst
   ‘Toru did not make Yoko go.’

   b. Toru-wa Yoko-o ik-anaku-sase-ta.
   Toru-Top Yoko-Acc go-Neg-Caus-Pst
   ‘Toru made Yoko not go.’

   Swuni-Nom baby-Dat medicine-Acc eat-Caus-CI Neg-Pst-Decl
   ‘Swuni did not make the baby take medicine.’

   Swuni-Nom baby-Dat medicine-Acc eat-Ci Neg-Caus-Pst-Decl
   Int. ‘Swuni made the baby not take medicine.’

(3) Sono bengosi-wa John-ni keiyakusyo-ni sain s-ase-ta.
   The lawyer-Top without.hesitation John-Dat contract-Dat sign do-Caus-Pst
   ‘The lawyer made John sign the contract without hesitation.’

(4) Cheli-ka Swuni-eykey pap-ul ilpwule mek-i-ess-ta.
   Cheli-Nom Swuni-Dat rice-Acc deliberately eat-Caus-Pst-Decl
   ‘Cheli deliberately made [Swuni eat rice].’

   Impossible. ‘Cheli made [Swuni deliberately eat rice].’

(5) Toru-wa Kitahara-ni kare-o syookai s-ase-ta.
   Toru-Top Kitahara-DAT he-ACC introduction do-CAUS-PST
   ‘Toru made Kitahara introduce him.’

(6) Cheli-ka khikun chinkwu-eykey ku-an-ki-ess-ta.
   Cheli-NOM tall friend-DAT he-ACC hold-CAUS-PST-DECL
   ‘Cheli made his tall friend hold him.’

(7) Hanako-wa Masao-mo Takaki-mo uti-o soozisuru-ka heya-dai-o haraw-aseru
    Hanako-Top Masao-also Takaki-also house-Acc clean-or room-rent-Acc pay-Caus
    that do-Pst
    ‘Hanako decided to make Masao and Takaki clean the house or pay room rent.’

    Cheli-Nom Swuni-also Pwuni-also clothes-Acc wear-or shoes-Acc put.on-Caus-Pst-Decl
    Int. ‘Cheli made Swuni and Pwuni [wear clothes or put on shoes].’

    Cheli-Nom Swuni-Dat rice-Acc eat-Caus-and clothes-Acc dress-Caus-Pst-Decl
    ‘Cheli made Swuni [eat rice and put on clothes].’

    Cheli-Nom Swuni-Dat rice-Acc eat-Caus-and clothes-Acc dress-Caus-Pst-Decl

[Day 2 P8]

Causatives and inchoatives in Korean: A unified account
Sunwoo Jeong
Department of Linguistics, Stanford University

Introduction  Korean causatives and inchoatives have been analyzed separately or in partial pairings ([4], [5]; cf. [7], [1]), but the systematic semantic and morphological connections between the two have not yet been formally captured. This paper argues that the seemingly disparate Korean causative affix -i and inchoative affix -i can be given a unified analysis, in which the affix -i is provided with a single semantics of set complementation (C) relativized to the domain of all caused and spontaneously occurring events denoted by the vP containing the affixed verb (cf. [2]).

The Korean causative/inchoative alternation  In Korean, there are some verbs whose causative versions are not marked morphologically, whereas their inchoative counterparts are marked with the morpheme -i. There are also other verbs whose inchoative versions are not marked morphologically, whereas their causative counterparts are marked with the morpheme -i. Each of these will be called: 0-causative, i-inchoative, 0-inchoative, and i-causative, respectively. Examples are given in (1) and (2), in which both the i-causative and the i-inchoative share an identical allomorph, -li.

An examination of the Korean counterparts of the verbs studied in [3] and [6] shows that the choice between 0-causative and i-inchoative vs. i-causative and 0-inchoative is not random in Korean. First, all internally-caused change of state verbs [6], [8] (i.e., spontaneously occurring; e.g., eol- ‘freeze’ in (2)) seem to be associated with i-causatives and 0-inchoatives. Second, most externally-caused change of state verbs [6], [8] (i.e., with an external causer; e.g., yeol- ‘open’ in (1)) seem to be associated with 0-causatives and i-inchoatives. Finally, the boundary between the two types of affixation patterns seems to align with the cross-linguistic affixation pattern noted in [3], in which the unmarked vs. marked morphology maps onto unmarked (canonical) vs. marked (non-canonical) causal properties of a given stem. Interestingly, in Korean, the marked causative morphology and the marked inchoative morphology seem to manifest as the same form, -i.

Analysis  We propose that the Korean causative/inchoative affix -i consistently signals that the event denoted by the verb stem has deviated from its canonical properties. The analysis is inspired by [2]’s account of the number marking affix in Dagaare, and differs fundamentally from previous approaches that directly associate ‘causative’ or ‘inchoative’ semantics with -i (cf. [4], [5]).

We assume that the ‘domain of the base’ [2] associated with a given vP is the set of all possible events (both externally-caused and spontaneously-occurring) it can denote. For instance, the domain associated with the vP ‘freeze lake’ (2) would be the set of both externally-caused and spontaneously-occurring lake-freezing events. We then posit that the canonical properties of causedness vs. spontaneous-occurrence is lexically specified for different types of verb stems. For instance, stems like ‘freeze’ (2) denote solely the spontaneously-occurring events, whereas stems like ‘open’ (1) denote solely the externally-caused events. These properties percolate up to, and determine the denotation of the whole vP. The affix -i, occupying the Voice head, can then be straightforwardly analyzed as effecting the set complementation operation (C) relativized to the domain of the base. When it combines with the vP ‘freeze lake’, C yields the set of all externally-caused lake-freezing events (i.e., semantically marked lake-freezing events) and ends up having a causative meaning. In contrast, when it combines with the vP ‘open door’, C yields the set of all spontaneously occurring door opening events (i.e., semantically marked door-opening events) and ends up having an inchoative meaning. Detailed derivations that demonstrate this are given in (3).
Conclusion  The analysis succeeds in systematically linking the two pairs of Korean causatives and inchoatives. More broadly, it suggests that certain affixes like -i contribute abstract meanings that are sensitive to referent-dependent markedness, creating an efficient morphological system.

(1)  a. Alice-ga moon-ul yeol-eoss-da.
    Alice-nom door-acc open-past-dec.
    Alice opened the door.

  b. moon-i yeol-li-eoss-da.
    door-nom open-inch-past-dec.
    The door opened.

(2)  a. hosu-ga col-eoss-da.
    lake-nom freeze-past-dec.
    The lake froze.

    Alice-nom water-acc freeze-caus-past-dec.
    Alice froze the (glass of) water.

(3) Analysis of Korean causative/inchoative suffix -i

<table>
<thead>
<tr>
<th>Verb stem denotes spontaneously occurring events</th>
<th>Verb stem denotes events with external causers</th>
</tr>
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<tbody>
<tr>
<td>0-inchoative (bare stem)</td>
<td>0-causative (bare stem)</td>
</tr>
<tr>
<td>[v_P \text{freeze lake}]</td>
<td>[v_P \text{open door}]</td>
</tr>
<tr>
<td>:= \lambda(v(\text{freeze-lake}(v))</td>
<td>:= \lambda(v(\text{cause-open-door}(v)))</td>
</tr>
<tr>
<td>\hspace{1cm} - \text{cause-freeze-lake(v))}</td>
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</table>

| 0-causative (bare stem)                           | i-inchootive                                    |
| \[v_P \text{freeze lake}] + li                   | \[v_P \text{open door}] + li                   |
| = (\[v_P \text{freeze lake}\])^C                | = (\[v_P \text{open door}\])^C               |
| = \lambda(v(\text{freeze-lake}(v))             | = \lambda(v(\text{cause-open-door}(v)))      |
| \hspace{1cm} - \text{cause-freeze-lake(v))}      | \hspace{1cm} - \text{cause-open-door}(v))}   |
| = \text{CAUS(freeze lake)}                       | = \text{INCHO(open door)}                     |

References

On the Non-uniformity of Gapped and Gapless Relatives
Kazuhiko Fukushima
Kansai Gaidai University

Relatives in Japanese, Korean, and Chinese have been controversial since a mixture of gapped (e.g. (1)) and gapless (e.g. (2)) relatives are found throughout ([1], [2], [3], [4], [6], [7]; rather recent ones). The central issue: how best to characterize the two kinds of relatives. Syntactic approaches mainly deal with the former with operator movement or copy operation and treat the latter ‘peripheral’ (with [1] being an exception). In contrast, pragmatic approaches offer various uniform accounts subsuming the two under a set of common semantic-pragmatic factors. However, the past research were preoccupied with the presence/absence of a ‘gap’ (trace) and have not recognized how significant the ‘(non-)obligatoriness’ of such a gap was.

Drawing on Japanese data, this paper proposes a new approach that upholds the division between the two kinds of relatives. Specifically, the latter is rendered as an appositive construction. The present account focuses on how obligatory such a gap is. What determines OBLIGATORINESS here is the notion of argument saturation: The relatives in (1a,b) with a transitive verb (kaku ‘write’) are incomplete propositions (i.e. gap filling is semantically obligatory) but the clauses in (1c), (2), and (3) are complete, regardless of the possibility of locating a gap or not: an adverbial gap in (1c) and no plausible gap in (2) or (3).

Though unnoticed/uninvestigated hitherto, when different head nouns are coordinated, distinct patterns emerge modulo obligatoriness (gap optionality is indicated with parentheses): (i) head nouns corresponding to obligatory arguments (either the subject or object here) can be coordinated, e.g. (4a-c); (ii) head nouns corresponding to obligatory and optional elements separately cannot be coordinated, e.g. (4d); (iii) head nouns corresponding to a gapless head and optional element can be coordinated, e.g. (4e); (iv) even those corresponding to a gapless head and appositive noun can be coordinated, e.g. (4f), while those corresponding to an obligatory element and appositive noun cannot be coordinated, e.g. (4g). If a gap is obligatory, all the head/appositive nouns are forced to fill it, rendering (4d,g) semantically ill-formed. The coordination facts here are rather surprising if the division of gapped vs. gapless relatives is drawn merely based on presence/absence of gaps. But the patterns of head noun coordination are quite expected given that the division is attributed to obligatoriness of gaps.

The account proposed. First, the examples with a gap (1a,b) and (4a-c) are regular noun modification and rendered as, e.g. (1a): λx[write(book,x) & novelist(x)], i.e. a CN (<e,t>). The novelist is identified as the writer. Second, the instances requiring no gap (1c), (2), and (3) are appositives with the clauses being a nominalized proposition: p ∈ D_{<e,t>} ⇒ \{\bar{y}(p) ∈ D_{\bar{\infty}} (following [5], \{\bar{y}(p) = \{v': \forall w ∈ p, w ≤ x^2\} with ‘t’ being a definite operator; a nominalized proposition is indicated by SMALL-CAPS). The appositive construction mediates (via pragmatically oriented Contextual-Relevance function establishing an appositive relation between the head noun and a nominalized clause based on the head noun semantics, cf. [2], [3], [4], [7]) rendering (1c) as λx[method(x) & C-Rel(x)(x, AUTHOR-WRITE-BOOK)] (where C-Rel(x) = MEANS, i.e. x is a method and means to achieve \{\bar{y}(p)\}; (2) as λx[book(x) & C-Rel(x)(x, READER-BECOME-SMART)] (where C-Rel(x) = EFFECTER, i.e. x is a book and an effector for \{\bar{y}(p)\); (3) as λx[fact(x) & C-Rel(x)(x, READER-BECOME-SMART)] (where C-Rel(x) = EQUALITY). Thus, (1c), (2), and (3) fall into the appositive category, accounting for (4).

Unlike in pragmatic accounts, ‘relatives’ are non-uniform, and ‘gapless relatives’ are not peripheral as in syntactic accounts. The gapped relatives belong to a filler-gap construction where a gap is filled obligatorily, while the so called ‘gapless relatives’ and even ‘relatives’ with superfluous gaps are appositives with no gap to be filled. If what is proposed here is correct, it not only significantly simplifies an account for relatives but also signals the end of one of the enduring disputes, namely, the one concerning gapped and ‘gapless’ relatives.
Data

(1) relative clause with a gap (aka a ‘trace’):
   a. [S gap, hon-o kai-ta] sakka
      book-ACC write-PAST novelst
   b. [S sakka-ga gap, kai-ta] hon
      ‘the novelist [that wrote the book]’ ‘the book [that the novelist wrote]’
   c. [S sakka-ga hon-o (gap, kai-ta)] hoohoo
      novelist-NOM book-ACC write-PAST method
      ‘the method [that the novelist wrote the book by]’

(2) relative clause without a gap:

(3) appositive clause with ‘fact’

References

Two Types of Reflexivization in Japanese
Tohru Noguchi, Ochanomizu University

1. Reinhart and Siloni (2005) argue that reflexive verbs are derived either in the lexicon or in the syntax, while Marell and Reuland (2016) argue that this is reduced to the availability of syntactic clitics. The purpose of this paper is to show that reflexive verb formation in Japanese comes in two types, i.e. lexical and syntactic, which in turn supports M&R’s approach.

2. There are many reflexive forms in Japanese—pronominals ware and onore, body-part nominals such as mi ‘body,’ and Sino-Japanese zibun, zisin, ziko-, zi-. I argue that reflexivization is “distributed” over the grammatical modules—zi- reflexivizes verbs in the lexicon via θ-bundling (1), while ziko- and zisin undergo SELF movement in the syntax (2)-(3), operating on the verb’s θ-grid and imposing an identity condition on it (4). Thus, binding of zibun and reflexivization by ziko or zisin may coexist and are independent from each other, contra Doron and Rappaport Hovav’s (2007) claim that syntactic reflexivization is anaphor binding.

3. The proposal is supported by the following facts. First, zibun does not co-occur with zi-verbs (5) unlike ziko-verbs (2). This follows because reflexivization bundling is accompanied by accusative Case reduction (6). This is in contrast to “syntax” languages, where a clitic is obligatory even with SELF-marked verbs (7). In fact, zi- can mark the anticausative voice as well (8), as is often the case with reflexive affixes (9). Note that while zi- is possible with some transitive verbs, it is NOT reflexive (10). Second, while zibun and ziko can occur in the argument position, ziko is essentially limited to the object position (11)-(12). Third, the locality condition on zisin, ziko- and zi, but not on zibun (13) follows: the first three operate on the verb’s θ-grid and the effect is necessarily local.

4. Unlike English himself and Dutch zichzelf, Japanese zibun-zisin and ziko do not induce the so-called proxy reading, while zibun does (14). This follows because zisin and ziko impose an identity relation, while zibun is a reflexive pronoun and can refer to its antecedent’s “spatio-temporal slice” (cf. Rooryck and Vanden Wyngaerd 2011) just like English himself and Dutch zichzelf. This correlates with the fact that while zibun may be associated with a sloppy or strict reading, ziko- and zisin only induce the sloppy reading (15). This is because zibun, as an anaphoric pronoun, can have its own reference, while the other forms do not.

5. The overall picture suggests that the grammar of Japanese makes full use of resources available to mark reflexivity, and that it is governed by the economy hierarchy lexicon < syntax < semantics < discourse (cf. Reuland 2011, M&R). This is true of many languages including English, where lexical reflexivization (e.g. John washed) and syntactic reflexivization (e.g. John criticized himself) coexist. Note that syntactic reflexivization in John washed himself is not blocked, due to the possibility of focusing the internal argument. This is in line with the general picture advanced by Reuland (2011) that tries to capture anaphora in a modular way.
   
   \[ \exists e \left[ (kill(e) \& \text{Agent}(e, \text{Taro})) \right] \]
   \[ \Rightarrow \exists e \left[ (kill(e) \& \text{Agent}(e, \text{Taro}) \& \text{Theme}(e, \text{Taro})) \right] \]

(2) Taro-ga zibun-zisin-o ziko-hihan-si-ta. (Taro-Nom SE-self-Acc criticize-do-Pst)
   ‘Taro criticized himself.’ (overt syntax)

(3) Taro-ga zibun-zisin-o hihan-si-ta. (Taro-Nom SE-self-Acc criticize-do-Pst)
   ‘Taro criticized himself.’ (covert syntax)

(4) \[ \exists e \left[ \text{criticize}(e) \& \text{Agent}(e, \text{Taro}) \& \text{Theme}(e, \text{zibun}) \& \text{Taro} = \text{zibun} \right] \]


(6) Case reduction: \[ kill_{\text{ACC}} [\text{Agent}][\text{Theme}] \rightarrow kill[\text{Agent-Theme}] \]

(7) a. Jean *(s’s) autoanalyze. (Jean SE self-analyze-Pres3s) (French)
   b. On *(se) samo-ubio. (he SE self-killed) (Serbo-Croatian)


(c.f. Kishida and Sato 2012)

(9) Russian utomil-sja (exhausted-self) ‘grew weary,’ Old Norse gróa-sk (grow-self) ‘grow’


(10) Taro-ga musuko-o zi-man-si-ta. (Taro-Nom son-Acc self-boast-do-Pst)
    ‘Taro boasted about his son.’

    ‘Taro criticized himself.’


   (Taro-Nom SE-Acc/self-smart think) ‘Taro considers himself smart.’


(14) Taro-ga zibun-zisin-o/*ziko-o migai-ta.

   (Taro-Nom SE-Acc/self-Acc self-polish-Pst) ‘Taro polished himself (= his statue).’

   (The judgment is only for the proxy reading.)

(15) a. Taro-wa Ziro-yorimo umaku zibun-o bengo-si-ta.

   (Taro-Nom Jiro-than better SE-Acc defend-do-Pst) (sloppy/strict)

   b. Taro-wa Ziro-yorimo umaku zibun-zisin-o bengo-si-ta. (sloppy only)

   c. Taro-wa Ziro-yorimo umaku ziko-bengo-si-ta. (sloppy only)

   (a-c) ‘Taro defended himself better than Jiro.’

1. **Synopsis** Watanabe (2006) deals with the Japanese pseudo-partitive construction, and argue that the bracketed parts of the sentences in (1) are derived from the same underlying structure. This paper claims in both syntactic and semantic terms that (1c) is derived in a different way and the Measure Phrase (MP) *kago-san-ko-bun* in the floating position is base-generated in a VP-modifier position.

2. **Counterarguments** The structure Watanabe proposes for (1c) is (2), where the host-NP *ball* and the MP are contained in the same DP. (2) predicts that if the two phrases are coded separately, it involves some movement of one of them. (3) is a problematic case for (2), since the MP *biika-san-ko-bun* occurs outside the relative clause (bracketed in (3)), which is an island. On the other hand, if the measure phrase is base-generated in the sister position of the matrix verb, (3) is straightforwardly derived.

   The claim that the floating measure phrase is a VP-modifier is supported also semantically. See (4), where the cardinality of the host NP *ball* is specified. The interpretation of (4a) is that Taro carried all the 600 balls whose amount is equivalent to the one measured by three baskets, while (4b) means that as for the 600 balls, Taro carried some of them whose amount is the one of three baskets, i.e., in (4b), Taro carried a some portion of the 600 balls with three baskets. This contrast can be explained by supposing that the non-floating MP in (4a) measures the amount of 600 balls, while the floating MP in (4b) measures the amount involved in the carrying event, and puts no influence on the 600 balls.

3. **Proposal** As in (5), MPs have two options as to where they are base-generated: DP-internally (A in (5)) or within VP (B in (5)). For the sake of simplicity of semantic types, we exploit Parson’s style event semantics, where a verb is a set of events (i.e. of type $\langle v, t \rangle$).

   Our proposal of MPs is based on Nakanishi’s analysis of Floating Numeral Quantifiers (FNQs). See (6). An MP takes a predicate of type $\langle \sigma, t \rangle$, where $\sigma$ is a flexible type, which enables an MP to take NP (type $\langle e, t \rangle$) and V (type $\langle v, t \rangle$). The homomorphism $h$ maps an individual or event to an individual relevant to it (i.e. if $h$ takes an individual, it works as an identity function). (7a) and (7b) are the results of MPs combining with NPs and V, respectively. (7b) means that the amount of individuals relevant to the *ball-carrying* event equals to the amount measured by three baskets, the interpretation of the floating MP in (4b).

   Nakanishi proposes that an FNQ must be c-commanded by its host NP, in order to be associated with it. In (3), however, the host NP *ekitai* does not c-command the MP. Instead of the c-command requirement, we propose (8) as the semantic requirement for association of an MP and its host.
   Taro-Top basket-three-Cl-amount-Gen ball-Acc carried.
   ‘Taro carried three baskets of balls.’

(2) [DP[CaseP ball-Acc]: [QP[QP basket-three-Cl-bun] t1 Q]D]

(3) Rabo-de Taro-wa [ekitai-ga motu] tokusei-o
   lab-in Taro-Top liquid-Nom have characteristics-Acc
   biikaa-san-ko-bun shirabeta.
   beaker-three-Cl-amount investigated
   ‘In the lab, Taro investigated characteristics of liquid contained in three beakers.’

   Taro-Top basket-three-Cl-amount-Gen 600-Cl-Gen-ball-Acc carried.
   ‘(Lit.) Taro carried three baskets of 600 balls.’

(5) T
   V
   A
   B
   VP
   TP

(6) \[[kago-san-ko-bun]\] = \lambda P_{a}, e \lambda a_{e} \cdot P(a) \wedge AMOUNT(h(a)) = \text{three baskets}.

(7) a. \[[kago-san-ko-bun-no ball]\] = \lambda x_{e} \cdot \text{ball}'(x) \wedge AMOUNT(h(x)) = \text{three baskets}
b. \[[kago-san-ko-bun hakonda]\] = \lambda e_{e} \cdot \text{carry}'(e) \wedge AMOUNT(h(e)) = \text{three baskets}

(8) An individual x in an event e can be measured by an MP iff if there is an event e’ such
    that e < e’, then there is an individual y in e’ such that x < y.

References
Generally, Korean contrastive marker 'un/nun' is said to appear to the right of the contrasted constituent, as in (1a) or (2a). In (1a), what is contrasted is the word panana. Thus, a natural follow-up question to (1a) is (1b); a question about some alternative of panana. In (2a), 'un/nun' is adjacent to both the V head and the VP. Thus, either the entire VP, or the V head could be interpreted as the contrasted element; a natural follow-up question to (2a) could be either, (2b) with an alternative VP, or (2c) with an alternative V head.

However, contrastive marker 'un/nun' may also appear within a contrasted constituent, as in (3a). In (3a), what is contrasted is not just pants but the washing of the pants; the alternative to ‘John washing the laundry’ is not washing of some other garment, but is ‘sweeping of the floor’. In other words, (3a) can be given the same interpretation as (3b), a sentence with contrasted VPs.

I argue that (3a) is possible because contrastiveness may project up like markers of information focus. In other words, contrastiveness of a higher constituent can be expressed by marking the sub-constituent of the contrasted constituent.

In English, prosodic focus on a sub-constituent can be interpreted as to express information focus on a larger constituent containing the focus marked constituent (Katz and Selkirk 2011). Thus, (4a) is an appropriate answer to (4b). Such a phenomenon has been termed focus projection, or projection of focus. According to Kiss (1998), (focus) projection is available only to functions that are not structurally dependent, such as English information focus, as in (4b). (4c) is not an appropriate answer to (4a), as identificational focus, a focus function that is dependent on a structural position, cannot project.

If we are to extend the analysis to contrastiveness, projection of contrastiveness may be available in Korean as contrastiveness is not dependent on a specific structural position. Such a notion is not novel. Many scholars, mostly based on the surface distribution of contrastive elements, have argued that contrastive interpretation is not associated with a specific structural position in Korean.

That contrastiveness is not dependent on a structural position, has been already suggested for English contrastive elements on independent grounds (Büring 2003). Thus projection of contrastive should be possible in English as well, if the analysis is on the right track. And the expectation is met. Contrastive prosody (or B-accent) may appear on sub-constituents to express contrast on its higher constituent in English, as in (5b) (within a DP) or (6) (within a VP).

To summarize, we have observed that projection of contrastivity is allowed in Korean, as well as in English, languages in which the interpretation of contrastiveness is not dependent on a specific structural position. Contrastive marker wa in Japanese has been observed to project as well, as in (7). Assuming that possibility of projection may be used as a diagnostics for structural dependency, at least contrastiveness in Korean, Japanese, and English is a function that is not assigned structurally.
John-NOM banana-CONT eat-PAST-DECL  
‘As for bananas, John ate them.’

b. John-i sakwa-nun mek-ess-ni?  
John-NOM apple-CONT eat-PAST-Q?  
‘What about apples, did John eat them?’

(2) a. John-i ppally-lul toli-ki-nun ha-yss-ta.  
John-NOM laundry-ACC spin-ki-CONT do-PAST-DECL  
‘As for washing the laundry, John did it.’

b. John-i batak-un ssul-ess-ni?  
John-NOM floor-CONT sweep-PAST-Q?  
‘As for sweeping the floor, did John do that?’

c. John-i ppally-lul nel-ki-nun ha-yss-ni?  
John-NOM laundry-ACC hang-ki-CONT do-PAST-DECL  
‘As for hanging the laundry, did John do that?’

(3) a. John-i ppally-nun toly-ess-ciman,  
John-NOM laundry-CONT spin-PAST-though  
patak-un ssul-ci ahn-ass-ta.  
floor-CONT sweep-ci NEG-PAST-DECL.  
‘Though John washed the laundry, he did not sweep the floor.’

b. John-i [ppally-lul toli-ki]-nun ha-yss-ciman,  
John-NOM laundry-ACC spin-ki-CONT do-PAST-though  
[patak-ul ssul-c]-nun ahn-ass-ta.  
floor-ACC sweep-ci-CONT NEG-PAST-DECL.  
‘Though John washed the laundry, he did not sweep the floor.’

(4) a. What did John do?  
b. John [FOC ate BEANS].

c. #It is beans that John ate.

(5) a. Where will the guests at Ivan and Theona’s wedding be seated?  
   (Büring 2003).

   b. [CONT FRIENDS and RELATIVES of the couple] will sit at the table.

(6) a. John [MARINATED the pork], but he didn’t [CONT STUFF the chicken].

   b. They [WATERED the flowers], but they did not [TRIM the bushes].

(7) [CONT AME-WA hut-ta] kedo [CONT GAKKO-NI-WA it-ta]  
    rain-CONT fell-PST but school-to-CONT go-PST  
    ‘Rain fell but I went to school.’ (Kuno, 1973)

Selected References

Contact: hanbchung@gmail.com
Interaction of phonology and morphology in Sino-Japanese: 
From a corpus-based approach

Chihkai Lin
Tatung University

This study re-examines the patterns of accentuation in Sino-Japanese trimoraic nouns. In Japanese, the lexical strata are divided into native Japanese, Sino-Japanese and loanwords. The patterns of accentuation in the three strata are reported to be distinctive (Kubozono 2008). In trimoraic nouns, native words tend to unaccented (71%), while loans show an opposite tendency (93% as accented). Sino-Japanese does not prefer any pattern of accentuation. When a trimoraic noun is accented, the accent is likely to be antepenultimate (Ogawa 2004, Kubozono 2008). Nevertheless, in Japanese moraic nasal, long vowel and geminate cannot carry accent, and they cause accent to shift to other full CV syllable. To avoid accent shift due to special moras, this study focuses on Sino-Japanese trimoraic nouns without special moras.

This study adopts a corpus-based approach, extracting Sino-Japanese trimoraic nouns from The Japanese Language Pronunciation and Accent Dictionary (NHK 2015). Data including long vowel, moraic nasal or geminate are excluded. The data are analyzed according to the mapping of kanji and moras, divided into A+BC, AB+C, and A+B+C. In addition to morphological mapping, vowel devoicing is also taken into account. As vowel devoicing interacts with accentuation (Kawahara 2015), examples with high vowel devoicing in medial positions are separated.

Results are reported in Table 1 below, showing three dimensions: the number of kanji, internal structure and patterns of accentuation. In total, there are 740 tokens. Four sets (676 tokens, 91.4%) are from those with two kanji. The majority is attested in unaccented 382 tokens from A+BC with two kanji. In A+BC with two kanji, 122 tokens are accented with initial accent. 107 tokens from AB+C with two kanji has initial accent. Although it does not exceed 10% of the corpus instances, there are 66 tokens in the set of unaccented from AB+C with two kanji. In two kanji, 29 corpus instances are attested in accented LHL and unaccented LHH. In three kanji, 35 corpus instances are attested only in unaccented LHH and accented LHL.

The results suggest a branching effect in Sino-Japanese trimoraic nouns. In A+BC with two kanji, there are two patterns, one as unaccented, which exceedingly outnumbers the accented HLL (381 > 122). In AB+C with two kanji, it shows an opposite tendency that accented HLL outnumbers unaccented (107 > 66). In addition to branching effect, the data also suggest that in two kanji, accentuation LHL is only attested in AB+C, not in A+BC. As for three kanji, although there are only 35 instances, 80% of the corpus instances are attested in accented LHL.

The new analysis of Sino-Japanese accent has two implications for Japanese phonology. One implication concerns that without special mora, Sino-Japanese shows similar distribution of accent to that of native words, as unaccented outnumbers accented. The other implication for Japanese phonology is that when internal structure is taken into account, branching determines accentuation. Right branching is associated more with unaccented and left branching is associated more with accented.
Table 1: Distribution of *kanji*, branching and accent in Sino-Japanese

<table>
<thead>
<tr>
<th>Number of kanji</th>
<th>Unaccented</th>
<th>Accented</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Branching</td>
<td>LHH(H)</td>
<td>HLL</td>
</tr>
<tr>
<td>Two</td>
<td>A+BC</td>
<td>381</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>AB+C</td>
<td>66</td>
<td>107</td>
</tr>
<tr>
<td>Three</td>
<td>A+BC</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>AB+C</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>A+B+C</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>454</td>
<td>229</td>
</tr>
</tbody>
</table>

References:

The orthographic Lyman’s Law and OCP effects in Japanese nicknames

Gakuji Kumagai

NINJAL

Introduction
There is a view that Lyman’s Law can be explained in terms of Japanese orthography (e.g., Vance 2015), in which voiced obstruents are expressed with a diacritical sign called *dakuten* (゜). An orthographic version of LL can be understood as a constraint that prohibits two auxiliary signs from occurring in a word (i.e., OCP (diacritic), Kawahara 2017). Because a diacritical sign *han-dakuten* (゜) is used to express *p* (*pa “*”* in Japanese orthography, the OCP (diacritic) will prevent singleton /p/ to occur with voiced obstruents in a word (i.e. *[p…D]*). The current paper experimentally examines whether it is active in Japanese, using a new nicknaming process showing /h/→[p] alternation (e.g., *kikari* ‘Kirari’ + *hikaru* ‘Hikaru’ → *kira-pika*; *hikaru* ‘Hikaru’ + *ko* ‘child’ → *pika-ko*; *haruka* ‘Haruka’ + RED → *paru-ru*), which has recently been observed in Japanese. The current paper also tests for OCP-related effects such as Identity Avoidance (e.g., Kawahara & Sano 2016; Kumagai & Kawahara 2017) and OCP-labial effect (Kumagai 2017).

Experiment
The current experiment uses compound truncation (e.g., *Kimura + Takuya → Kimu-taku*) (Kubozono 2015), or a nicknaming process where two moras of a family name and two moras of a given name are left for truncation. Participants of the current experiment were sixty-nine native speakers of Japanese, who were asked to judge naturalness of nicknames with /h/→[p] alternation applied (e.g., *kanno* ‘(family name)’ + *hadami* ‘(give name)’ → *kam#pada*), using a six-point scale (1: very unnatural ~ 6: very natural). Table 1 shows three groups of given names tested here. After truncation, each group will yield a sequence of /p…n/, /p…d/, or /p…b/, respectively, the last two of which violate *[p…D]*. The /p…b/ pair also violates OCP (labial). Table 2 shows each condition of family names. For CV# condition, the first two moras are left after truncation (e.g., *kasino + hadami → kasi#pada*). For coda-nasal (m#) condition, the second mora ends with a nasal after truncation (e.g., *kanno + hadami → ka#pada*). For OCP(C), the consonant of the third mora of a family name is identical to the following one (e.g., *kempe + hadami → kepe#pada*). For OCP(CV), the third mora is identical to the following one (e.g., *tampa + hadami → tapa#pada*). In the current experiment, the nine given names in Table 1 were tested for under each condition. Thus, the current paper analyzed 36 questions (9 given names*4 conditions) in total.

Results
Figures 1 and 2 show results of average naturalness in each condition. A linear logistic regression analysis showed that the nicknames with /h/→[p] alternation are less likely to be tolerated in OCP conditions than in the CV# and coda-nasal conditions. For each condition, there were significant differences between /p…n/ and /p…d/, which suggests that *[p…D]* is psychologically real in the minds of Japanese speakers. There were also (nearly) significant differences between /p…D/ and /p…b/ in the CV# and coda-nasal conditions, which means that the OCP-labial effect is active beyond rendaku.
Table 1: Set of stimuli (Given names)

<table>
<thead>
<tr>
<th>CV#</th>
<th>m#(coda-nasal)</th>
<th>OCP(C)</th>
<th>OCP(CV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p...n/</td>
<td>hanemi</td>
<td>hadami</td>
<td>habiyo</td>
</tr>
<tr>
<td>/p...d/</td>
<td>hinako</td>
<td>hidemi</td>
<td>hibari</td>
</tr>
<tr>
<td>/p...b/</td>
<td>huneko</td>
<td>hudeko</td>
<td>hubeko</td>
</tr>
</tbody>
</table>

Table 2. Set of stimuli (Family names)

<table>
<thead>
<tr>
<th>CV#</th>
<th>m#(coda-nasal)</th>
<th>OCP(C)</th>
<th>OCP(CV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p...n/</td>
<td>kasino</td>
<td>kanno</td>
<td>tampaku</td>
</tr>
<tr>
<td>/p...d/</td>
<td>kosino</td>
<td>konno</td>
<td>sappinai</td>
</tr>
<tr>
<td>/p...b/</td>
<td>hosino</td>
<td>honda</td>
<td>tampu</td>
</tr>
</tbody>
</table>

Figure 1: Average naturalness (CV# and m# conditions)

Figure 2: Average naturalness (OCP(C) and OCP(CV) conditions)

References
In this study we investigated the abbreviation patterns of loanword compounds in Japanese, focusing especially on the influence of the Obligatory Contour Principle (Goldsmith 1976).

In Japanese, loanwords are often truncated to form new words (Itô 1990, Kubozono and Ogawa 2005, Labrune 2002). Many complex words tend to be abbreviated as quadrisyllabic patterns by clipping the initial two morae from each component of the base word (e.g. dezitaru + kamera → dezikame ‘digital camera’). However, in the case of a first component with a long vowel, it is possible to retain the long vowel as in (1a) or to suppress as in (1b).

(1) The patterns of complex abbreviated words with long vowels in the first component
   a. syaapu pensiru → syaapen *syapupen ‘mechanical pencil’
   b. paasonaru konpyuutaa → pasokon *paakon ‘personal computer’

In (1a), syaapu pensiru cannot be abbreviated syapupen and in (1b) paasonaru konpyuutaa cannot be abbreviated paakon. This second type (e.g. pasokon) does not maintain the long vowel and replaces it with the next independent mora. In the first type (e.g. syaapen in (1a)), the initial long vowel tends to be maintained, especially when the same consonant is repeated at the morpheme boundary of an abbreviated word, therefore, quadrisyllabic patterns tend to be avoided by influence of the OCP.

To reveal what consonant sequences lead to avoidance of quadrisyllabic patterns, we conducted a forced-choice test, focusing especially on the difference between dorsal, coronal and labial places of articulation (Table 1). Participants saw compound loanword nouns with long vowels, e.g. riipino (nonsense word) and panfuretto (real word, ‘pamphlet’), and were asked to choose between two possible abbreviation patterns, e.g. riipan (trisyllabic patterns) or ripipan (quadrisyllabic patterns).

Results were as follows. First, abbreviation patterns that repeat a consonant articulation were avoided. Second, sequential labials were avoided more often than sequential dorsal and coronal gestures (Figure 1). A chi-square test of independence was performed to examine the relation between abbreviation patterns and places of articulation. The relation between these variables was significant ($\chi^2(1) = 35.79, p < .01$). Labials were more likely to be avoided in quadrisyllabic patterns than were dorsals and coronals. This analysis reveals that the influence of the OCP on word truncation in Japanese is related to the duration of the sequence of consonants at the morpheme boundary. Third, the influence of the OCP in Japanese is not limited to the morpheme level.
Table 1. Sequence of consonants at the morpheme boundary.

<table>
<thead>
<tr>
<th></th>
<th>dorsal</th>
<th>coronal</th>
<th>labial</th>
</tr>
</thead>
<tbody>
<tr>
<td>voiceless</td>
<td>kk</td>
<td>tt</td>
<td>ss</td>
</tr>
<tr>
<td>voiced</td>
<td>gg</td>
<td>dd</td>
<td>zz</td>
</tr>
<tr>
<td>voiceless + voiced</td>
<td>kg</td>
<td>td</td>
<td>sz</td>
</tr>
<tr>
<td>voiced + voiceless</td>
<td>gk</td>
<td>dt</td>
<td>zs</td>
</tr>
</tbody>
</table>

Figure 1. Results of the forced-choice test

Pronoun interpretation with referential and quantificational antecedents in SLA
Eun Hee Kim
University of Illinois at Urbana Champaign

Well-established findings in native language (L1) acquisition research are that children know
that a reflexive must take a local (i.e., clause-mate) antecedent in accordance with Principle A of
Binding Theory by age three, yet allow a pronoun to take a local antecedent, in apparent
violation of Principle B (e.g., Chien & Wexler, 1990; Clackson et al., 2011). It is also observed
that children are more likely to accept a local antecedent for a pronoun when it is referential (1a)
than when it is quantificational (1b). One explanation for this asymmetry is that children’s errors
are due not to lack of Principle B, but to lack of Rule I, under Reinhart’s framework which posits
two distinct interpretational methods for pronouns – variable binding and coreference – and
additional pragmatic rule (Rule I) specifying the contexts where the coreferential reading cannot
be obtained (Reinhart, 2006). In contrast to the L1 acquisition research, studies exploring
pronoun acquisition in second language (L2) acquisition are quite scarce, and show contradictory
findings. Some studies have shown that adult L2 learners have little difficulty with L2 pronouns,
correctly disallowing clause-mate antecedents (White, 1998; Patterson et al., 2014), whereas
others have found that clause-mate antecedents are incorrectly allowed by L2 learners (Lee &
Schachter, 1997; Kim et al., 2015). Given that the difficulty with pronouns has been observed
only in studies with L1-Korean L2-English learners, it is possible that the properties of Korean
pronouns may affect the acquisition of English pronouns by L1-Korean L2-English learners.
Therefore, this study aims to 1) examine L2 learners’ pronoun interpretation with various
types of antecedents, and 2) explore the possibility that incorrect acceptance of pronouns
with local antecedents is due to L1-transfer from Korean.

Both L1-Korean L2-English learners and native speakers of English (control group) completed a
Truth Value Judgment Task with story contexts, in English. Additionally, to assess L1-transfer
effect, the learners were tested on the Korean version of the TVJT as well (at least two weeks
elapsed between learners’ participation in English vs. Korean experiments). The TVJT crossed
antecedent type (referential vs. quantificational) with distance (local vs. non-local), as in (2).
Preliminary results from 13 L1-Korean L2-English learners and 26 English native controls have
been analyzed (data collection is ongoing).

English TVJT (Figure 1): the L2-learners overaccepted local referential antecedents for
pronouns (2a), but not local quantificational antecedents (2b), similar to findings reported in L1
acquisition research. Moreover, L2 learners were at chance in accepting non-local
quantificational antecedents (2d), probably because they were allowing the possibility of the
local referential antecedent. Korean TVJT (Figure 1): the Korean speakers performed very
similarly in Korean as in English, allowing local referential antecedents but not local
quantificational antecedents. This seems to be due to the fact that Korean speakers use
coreference as a primary interpretive mechanism for overt pronouns, suggesting that Rule I may
be inoperative in Korean. This would have affected how they interpret English pronouns, and
hence we conclude that overacceptance of local antecedents for pronouns in SLA is a result of
L1-transfer.

(500)
(1) a. Mama bear is touching her. (children’s interpretation: her = Mama bear)
    b. Every bear is touching her. (children’s interpretation: her ≠ Every bear)

(2) TVJT

Sample story for local referential antecedent: Sally, Megan and Tiffany go to the same school as Jessica. They don’t like Jessica because they think she is too confident about herself. She always considers herself to be a great person, which they don’t agree with at all. And Jessica has a rather poor opinion of the other girls, which doesn’t help. One day, their teacher asked why the three girls don’t like her and they explained why.

<table>
<thead>
<tr>
<th>Type Distance</th>
<th>Referential antecedent</th>
<th>Quantificational antecedent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>a. Every girl said that [Jessica, thought highly of her].</td>
<td>b. Jessica said that [every girl] thought highly of her].</td>
</tr>
<tr>
<td></td>
<td>(Motun sonye-ka [Jessica-ka kunye-lul taytanhakey yekinta]-ko malhayssta.)</td>
<td>(Jessica-ka [motun sonye-ka kunye-lul taytanhakey yekinta]-ko malhayssta.)</td>
</tr>
<tr>
<td>Non-local</td>
<td>c. Jessica said that [every girl thought highly of her].</td>
<td>d. Every girl, said that [Jessica thought highly of her].</td>
</tr>
<tr>
<td></td>
<td>(Jessica-ka [motun sonye-ka kunye-lul taytanhakey yekinta]-ko malhayssta.)</td>
<td>(Motun sonye-ka [Jessica-ka kunye-lul taytanhakey yekinta]-ko malhayssta.)</td>
</tr>
</tbody>
</table>

Note: The bolded NPs in the test sentences indicate the antecedent that the pronoun takes. For Korean TVJT, Korean names are used both in the stories and the test sentences. The sample test sentences used in Korean TVJT are given in parenthesis.

Figure 1: Mean percentage of TRUE responses of each condition by native speakers of English tested in English (NS) and Korean-speaking learners of English tested in English (L2-Eng) and Korean (L2-Kor)
Raising-to-Subject in Korean: Evidence from Honorific Agreement and NPI Licensing
Jinsun Choe
Hankuk University of Foreign Studies

This study investigates the availability of subject-to-subject raising in Korean by using the subject honorification properties as a diagnostic tool. An acceptability judgment task was conducted with Korean-speaking adults, and the results showed that participants accepted sentences in which raising is purported to have taken place.

Subject-to-subject raising is a movement operation in which the embedded subject raises to the matrix subject position, as in (1). Although it has been widely studied in languages like English, it has been a matter of controversy whether the same operation exists in Korean. Some scholars claim that raising-to-subject can take place in Korean (e.g., Um, 2010), as evidenced by the subject-verb honorific agreement in (2), in which grandfather agrees with the honorific marker -si- on the matrix verb -kathta. However, that very sentence was judged ungrammatical by other scholars (Choi, 1988; Um & Kim, 2009). Thus, the present study was conducted with naïve participants in order to assess these opposing claims and to address the question of whether raising movement is possible in Korean.

One hundred and seven Korean-speaking adults participated in a judgment task, in which they were asked to rate the acceptability of various sentences, using a 5-point Likert scale. Each participant was presented with a total of one hundred sentences (20 experimental items, 60 control items, 20 fillers, randomized). Experimental items were bi-clausal –kes kathta constructions, in which the subject of the embedded clause was always an honorable noun (mostly with the marker –nim), and they were divided into four conditions depending on the position (embedded vs. matrix) and presence (presence vs. absence) of the honorific marker –si, as in Table 1. To compare the acceptability of the experimental items, two types of control items were included: acceptable and unacceptable sentences.

The distributions of Likert scores per condition are presented in a diverging stacked bar chart in Figure 1. When compared with the results of the control items, all conditions in the experimental items show the pattern similar to that of acceptable sentences, rather than that of unacceptable sentences, reflected by responses primarily located in the ‘natural’ answer options. Furthermore, the results of one-sample t-tests conducted for each experimental condition revealed that the mean scores of each condition were significantly higher than a neutral score 3 (all ps < .05; Figure 2). In particular, it was observed that the mean scores of the experimental conditions were all significantly different from the mean rating of 1.46 which was for a subset of unacceptable sentences (control items) where a non-honorific subject clashes with the honorific marker on the verb. That is, participants treated experimental items differently from sentences containing honorific agreement errors.

In sum, participants were most likely to accept sentences in which the honorific marker -si- is triggered by the honorific subject noun phrase and occurs within the same embedded clause (cond. 2). However, they also showed a tendency to accept the use of -si- on the matrix predicate –kathta, even when there seems to be no honorific grammatical subject in the matrix clause (cond. 1 & cond. 3), suggesting that the honorific marker agrees with the honorific subject that has raised from the embedded clause to the matrix clause. Thus, these findings point to the possibility of raising movement in Korean, indicating that the embedded subject is able to move out of the clause to the matrix subject position to agree with the honorific marker on the matrix predicate.
(1)  a. Unraised: It seems that John is happy.
    b. Raising: John seems [to be happy].

    grandfather-Hon.nom home-to go-Hon-Rel.pst seem-Decl
    ‘It seems that grandfather went home.’ (kes: nominalizer)
    grandfather-Hon home-to go-Hon-Rel.pst seem-Hon-Decl
    ‘Grandfather seems to have gone home.’

Table 1. Experimental items

<table>
<thead>
<tr>
<th>Condition</th>
<th>Position and Presence of the Honorific marker -si-</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Embedded clause</td>
<td>Matrix clause</td>
</tr>
</tbody>
</table>
| 1         | +           | +           | [ 교수님께서 병원으로 갔으시다 ] 유년시다  
            | [NP… V-HON] seem-HON |         |
| 2         | +           | -           | [ 교수님께서 병원으로 갔으시다 ] 같다  
            | [NP… V-HON] seem |         |
| 3         | -           | +           | [ 교수님께서 병원으로 갔으시다 ] 유년시다  
            | [NP… V] seem-HON |         |
| 4         | -           | -           | [ 교수님께서 병원으로 갔으시다 ] 같다  
            | [NP… V] seem |         |

Figure 1. Percentage of scores by condition

Figure 2. Mean scores of experimental items and control items
Acquisition of V-V and N-N compounds in Japanese: From the viewpoint of the Compounding Parameter
Reiko Okabe and Miwa Isobe
Nihon University and Tokyo University of the Arts

Introduction
A series of detailed cross-linguistic and acquisition studies by Snyder (1995 et seq.) has proposed the Compounding Parameter (TCP) in (1) which determines the availability of creative, endocentric nominal compounds (NNs) and complex predicate constructions (CPCs). These studies have also reported that some [+TCP] languages such as English and Mandarin permit V-DP-Particle construction (V-DP-Prt) (e.g., pull the lid off) while others such as Japanese and Korean do not. The present study focuses on the fact that only Japanese-type [+TCP] languages permit Verb-Verb compounds (VVs) as in (2) and proposes that the availability of this construction depends on the [+TCP] setting, based on acquisitional data.

V-V Compounds and TCP
Both Japanese and Korean are known to have one type of VV: lexical VVs (LVVs) (e.g., Kageyama 1993). The present study assumes that Japanese LVVs are constructed in syntax (e.g., Saito 2014), and V₁ directly merges with V₂ to form a verbal complex as shown in (3). Another characteristic which Japanese and Korean share is the availability of NNs and CPCs like resultatives. Snyder (2007) argues that the construction is controlled by TCP, with Generalized Modification (GM) in (1b) playing a role in interpretation of NNs and CPCs as in (4).

We can find an interesting semantic similarity between LVVs and other constructions known to stem from TCP, such as NNs: the two verbs of a Japanese LVV, such as nage-ireru ‘throw-put.in,’ are sisters, with V₂ serving as the head of the compound. We can then assume that GM applies to the LVV, which correctly yields the meaning of ‘a subtype of putting (something) in event-kind denoted by throwing.’ This leads us to believe that the availability of LVVs also has to do with [+TCP].

Given the findings described above, there seem to be at least two types of [+TCP] languages: those which allow V-DP-Prt and those which permit LVVs. It is then expected that there is a correlation between the acquisition of NNs and the acquisition of LVVs in Japanese-speaking children.

Corpus Analysis
We manually analyzed all the files of three corpora in CHILDES (Table 1) to locate the first of repeated uses (FRU) of LVVs and novel NNs, following Snyder (2007). Table 2, which summarizes each child’s FRU for each construction, shows that all the children seemingly started to produce NNs earlier than LVVs. After counting the numbers of all LVVs and NNs uttered by each child, we conducted the binomial test to obtain the probability of the child’s producing NNs earlier than LVVs simply by chance (Table 3). The result is not significant at Bonferroni-corrected p-value of .05, which suggests that all three children acquired LVVs and creative NNs at around the same time.

Discussion & Conclusion
The present study points out that only Japanese-type [+TCP] languages allow LVVs and tested the acquisitional prediction derived from this cross-linguistic fact. The corpus data suggest that Japanese children acquire LVVs and NNs almost concurrently. The results are compatible with our claim that both LVVs and NNs stem from TCP.
**Examples**

(1) a. The Compounding Parameter (TCP)

The language (does / does not) permit Generalized Modification.

b. Generalized Modification (GM)

If $\alpha$ and $\beta$ are syntactic sisters under the node $\gamma$, where $\alpha$ is the head of $\gamma$, and if $\alpha$ denotes a kind, then interpret $\gamma$ semantically as a subtype of $\alpha$'s kind that stands in a pragmatically suitable relation to the denotation of $\beta$.

(Snyder 2012: 285)

(2) a. Japanese:

$nage$-ireru [throw-put.in] ‘throw in,’

$hiki-nuku$ [pull-extract] ‘pull out,’

$osi$-dasu [push-move.out] ‘push out,’

$ori$-mageru [fold-bend] ‘fold up’

b. Korean:

$ccille$-cwukita [stab-kill] ‘stab to death,’

$pata$-tulita [receive-put.in] ‘accept,’

$kala$-thata [change-get.on] ‘transfer,’

$ckhye$-pota [protect-watch] ‘watch over’

(Tsukamoto 2013: 302)

(3) $[\text{VP} \quad \text{booru-o} \quad [v_{2} \quad \text{nage}] \quad [v_{2} \quad \text{ire}]]$

$\text{ball-ACC} \quad \text{throw} \quad \text{put.in}$ ‘throw the ball in’

(4) a. NN: l frog chair l = chair of a type related to frogs

b. Complex predicate construction (e.g., resultative):

l wipe clean l = a subtype of the “wiping” kind of event, that stands in a pragmatically suitable relation to the “clean” kind of state

(Snyder 2012: 285-286, 289)

**Table 1: Corpora analyzed**

<table>
<thead>
<tr>
<th>Child</th>
<th>Collected by</th>
<th>Age</th>
<th># of utterances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tai</td>
<td>Miyata (2004c)</td>
<td>1;5-3;1</td>
<td>33,336</td>
</tr>
<tr>
<td>Sumihare</td>
<td>Noji et al. (2004a)</td>
<td>0;0-6;11</td>
<td>39,641</td>
</tr>
<tr>
<td>Nanami</td>
<td>Nisisawa &amp; Miyata (2009)</td>
<td>1;1-5;0</td>
<td>27,416</td>
</tr>
</tbody>
</table>

**Table 2: Children’s FRU of LVVs and NNs**

<table>
<thead>
<tr>
<th>Child</th>
<th>LVVs</th>
<th>Creative NNs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tai</td>
<td>$moti$-dasu ‘hold-bring.out’ (2;7.21)</td>
<td>$hanbaagu$-keeki ‘hamburg.steak-cake’ (2;4.30)</td>
</tr>
<tr>
<td>Sumihare</td>
<td>$hai$-deru ‘crawl-come.out’ (2;10.01)</td>
<td>$omaturi$-geta ‘festival-Japanese clog’ (2;7.15)</td>
</tr>
<tr>
<td>Nanami</td>
<td>$maki$-tuku ‘wind-stick.to’ (3;11.12)</td>
<td>$ninjin$-iro ‘carrot-color’ (2;8.07)</td>
</tr>
</tbody>
</table>

**Table 3: Statistical analysis** (binomial test based on absolute frequencies)

<table>
<thead>
<tr>
<th>Child</th>
<th>p-value</th>
<th>$p = [(x-y)/x]^z$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tai</td>
<td>.171 &gt; .017</td>
<td>x: the total # of utterances after FRU of LVV</td>
</tr>
<tr>
<td>Sumihare</td>
<td>.597 &gt; .017</td>
<td>y: the total # of utterances with LVV</td>
</tr>
<tr>
<td>Nanami</td>
<td>.038 &gt; .017</td>
<td>z: the total # of utterances btw FRU of NN and that of LVV</td>
</tr>
</tbody>
</table>

(The significance level of .05 was corrected using a Bonferroni correction (.05/3 = .017).)

Wh-island effects in Korean scrambling constructions
Juyeon Cho
(Seoul National University)

This paper aims to investigate wh-island effect in scrambling structures in Korean. Since the scrambling of a wh-phrase is allowed in wh-in-situ languages including Korean, such languages are not considered to exhibit wh-island effect. However, when it comes to the interpretation of the sentences in (1), it is controversial whether the extracted wh-phrase can have the wide-scope reading above the entire sentence or not, implying that wh-phrase can be an island at LF level. Note that the concepts of wh-island in above two cases are different, I separate the wh-island effect based on where it occurs. The island effect which is caused by the overt movement out of wh-phrase (or scrambling) is called wh-PF-island effect, whereas the effect which bans the wide-scope reading for a wh-phrase over the sentence is called wh-LF-island effect. Given that two wh-island effects can be observed at different level respectively, this paper provides empirical evidence toward existence of each wh-island effect in Korean. It proceeds with two research questions: first, does Korean show wh-PF-island effect? and second, does Korean show wh-LF-island effect?

To examine the wh-island effects in Korean, the factorial definition with two factors, the structure and the presence of wh-island, was adopted with some modifications of the definition in [1]. Also, the felicity of question-answer pairs was measured, considering that the interpretation of wh-phrase varies by the type of answers referring to [2]. Therefore, the current experiment was conducted under a 2 x 2 x 2 factorial design, with three factors: Structure (non-island / island), Wh-position (non-scrambling / scrambling) and Answer type (yes/no-answer / wh-answer). Thirty-two sets of experimental sentences (four tokens for each of the eight conditions) were used for the acceptability judgment task with a 7-point Likert scale task on twenty Korean native speakers. The example materials are represented in (2) for questions and (3) for answers.

The basic descriptive results of the judgment task (see Figure 1) shows the differences between Structures (island/non-island). As for Wh-position, scrambled questions were rated slightly lower than non-scrambled questions, which means that scrambling might affect the acceptability of sentences. With the z-score transformed ratings, an interaction between Structure and Wh-position was calculated using differences-in-differences (DD) scores for each participant: DD score = D1 (non-island/non-scrambling – island/non-scrambling) – D2 (non-island/scrambling – island/ scrambling). The DD scores which is almost 0 (DD = 0.02) indicates a sub-additive (non-island) interaction for wh-PF-island effect, regardless of answer types (a $p$-value of .21 and a DD score of -.24 for y/n answer; a $p$-value of .18 and a DD score of -.27 for wh-answer; see Figure 2). Following this, we can observe that whether the sentence has wh-island or not, the differences in acceptability come from the location of wh-phrase.

Among sentences with wh-island, the two-way ANOVA for Answer type (y/n-answer/wh-answer) and Wh-position showed a significant interaction between two factors ($p < .0001$) with the positive DD score of .84 (see Figure 3). The non-scrambled island condition exhibits a preference to the embedded scope reading, which is suggestive for existence of wh-LF-island effect in Korean. However, the opposite results were observed among other conditions, indicating that speakers considered the question as a direct wh-question, as opposed to the generalization proposed in the literature such as [3]. Since there is no wh-PF-island effect in Korean, the scrambled wh-phrase is allowed and it is compatible with matrix scope just as sentences without wh-islands. Although the scrambled wh-word prefers to be located in the moved position, it can still be undone following [4]. Overall, this study argues that Korean does not show sensitivity to wh-PF-island but does show to wh-LF-island.
Data

What-Acc J-Top Mary-Nom eat-Past-Q know-Past-Q
‘What did John know whether Mary ate ___?’ or ‘Did John know what Mary ate ___?’

(2) a. Non-island | non-scrambling
   Ne-nun [Yeji-ka nwuku-ul manna-ss-ta-ko] tul-ess-ni?
   You-Top Y-Nom who-Acc meet-Past-Decl hear-Past-Q
b. Non-island | scrambling
   Nwuku-ul ne-nun [Yeji-ka ___ manna-ss-ta-ko] tul-ess-ni?
   Who-Acc you-Top Y-Nom meet-Past-Decl hear-Past-Q
c. Island | non-scrambling
   Ne-nun [Yeji-ka nwuku-ul manna-ss-nunci] tul-ess-ni?
   You-Top Y-Nom who-Acc meet-Past-Q hear-Past-Q
d. Island | scrambling
   nwuku-ul ne-nun [Yeji-ka ___ manna-ss-nunci] tul-ess-ni?
   Who-Acc you-Top Y-Nom meet-Past-Q hear-Past-Q

(3) a. Yes/no answer
   Ung, tul-ess-e.
   Yes, hear-Past-Decl
b. Wh-answer
   Minsu(-lul manna-ss-ta-ko/nunci tul-ess-e).
   M-Acc meet-Past-Decl/-Q hear-Past-Decl

Figure 1. Ratings of acceptability judgment task

Figure 2. Interaction plots for wh-PF-island with DD scores

Figure 3. Interaction plot for wh-LF-island with DD scores

References
Children’s Acquisition of Sluicing Constructions in Japanese
Akari Ohba¹, Hiroyuki Shimada² and Kyoko Yamakoshi¹
Ochanomizu University¹ and Meiji Gakuin University²

1. Introduction: This study examines the structure of sluicing in child Japanese. We compare two types of Japanese sluicing: pronominal sluicing (JPS) and standard sluicing (JSS) (Nakao&Yoshida 2005, Takita 2010). This study investigates whether children know the structural difference between JPS and JSS by examining the acceptability of strict and sloppy readings. Our results show that Japanese children know the difference, which does not seem to be acquired from their input.

2. Sluicing in Japanese: Sluicing is an ellipsis in which wh-phrases remain ((1)) (Ross 1969, Merchant 2001). In particular, we focus on two types of Japanese sluicing: Japanese pronominal sluicing (JPS) involving the pronoun sore-ga (‘it-Nom’) ((2)) and Japanese standard sluicing (JSS) without the pronoun sore-ga ((3)). In standard sluicing, the wh-phrase is case-marked or not. We use non-case-marked standard sluicing to compare it with pronominal sluicing, which allows only a non-case-marked wh-phrase (Hiraiwa&Ishihara 2012). Since Japanese is a pro-drop language, it is possible to assume that JSS is derived from JPS with sore-ga replaced by a null pronoun pro. However, JPS allows only strict readings ((2)), whereas JSS allows both strict and sloppy readings (Fukaya&Hoji 1999) ((3)). This difference cannot be explained by only assuming pro in JSS. Under Hiraiwa&Ishihara (2012), this difference is accounted for because JSS is derived from a non-case-marked cleft and an ellipsis ((4)).

3. Prediction & Experiment: The question is whether children know the structural difference between JPS and JSS. Because JPS includes an overt pronoun, children may always analyze the structure of JSS as the one including pro. It seems implausible to acquire the difference from their input. If children only assume pro in JSS, we expect that children do not allow sloppy readings for JSS. If children assume both pro and ellipsis in JSS, we predict that they allow both strict and sloppy readings. Our experiment examined whether children accepted strict and sloppy readings for JSS. We also tested whether children accepted only strict readings and rejected sloppy readings for JPS.

We divided 18 Japanese-monolingual children (4;3-6;11, mean=5;6) into two groups and used the Truth Value Judgment Task. In the first group (G1), we tested JPS with sore-ga ‘it-Nom’ ((6a,b)). In the second group (G2), we tested JSS without sore-ga ((6a,c)). After the child was told a story with pictures ((5)), the child judged whether the test sentence was true or false.

4. Results & Discussion: The children in G1 accepted sloppy readings for JPS only 16.7% of the time (3/18), which means that they accepted only strict readings for JPS for most of the time. In contrast, the children in G2 accepted sloppy readings for JSS 72.2% of the time (13/18). The difference between G1 and G2 is statistically significant (Mann-Whitney U Test, U=13.5, p<.01). The results suggest that the Japanese children know the structural difference between JSS and JPS, even though the elided part is not phonologically given in the input. Our experiment shows that 1) Japanese children know the interpretational differences between JSS and JPS, and 2) they know the case that JSS includes ellipsis. (498 words)

John bought something, but I don’t know [CP what, [IP John bought t]]

(2) Taro-wa [ zibun-ga nani-o mora-tta ka ] sitteiru ga,
Taro-Top self-Nom what-Acc receive-Past Q know but
Hanako-wa [ sore-ga nani (da) ka ] sitteiru ga,
Hanako-Top it-Nom what (Copula) Q know-not.

‘Taro knows what he received, but Hanako does not know what.’
(Strict reading: ok what Taro received / Sloppy reading: * what Hanako received)

(3) Taro-wa [ zibun-ga nani-o mora-tta ka ] sitteiru ga,
Taro-Top self-Nom what-Acc receive-Past Q know but
Hanako-wa [ (nani(-o) (da) ka ] sitteiru ga,
Hanako-Top what(-Acc) (Cop) Q know-not

‘Taro knows what he received, but Hanako does not know what.’
(Strict reading: ok what Taro received / Sloppy reading: * what Hanako received)

(4) The cleft analysis for the structure of standard sluicing (Hiraiwa and Ishihara 2012)

Taro-wa [ zibun-ga nani-o mora-tta ka ] sitteiru ga,
Taro-Top self-Nom what-Acc receive-Past Q know but
Hanako-wa [ nani(ga) nani-o (da) ka ] sitteiru ga,
Hanako-Top what(-Acc) (Copula) Q know-not

‘Taro knows what he received, but Hanako does not know what.’
(Strict reading: ok what Taro received / Sloppy reading: * what Hanako received)

(5) Story: A cow and a mouse both received a present. The cow opened his present because he could not wait. The mouse did not open his present because he decided to open it after going back to his house. But the cow wanted to know what the mouse received, so he asked the mouse to open his present. The mouse refused the cow’s request though, so the cow gave up asking.

(6) Examples of Test Sentences for Group 1 (False) and Group 2 (True/False)

a. Nezumisan-wa zibun-ga nani-o morat-ta ka mite-nai kedo,
Mouse-Top self-Nom what-Acc receive-Past Q look-Neg but

Cow-Top it-Nom what Q look-Past SFP

‘The mouse did not look at what he received, but the cow looked at what it is.’
(Strict reading: ok what the mouse received / Sloppy reading: * what the cow received)

Cow-Top what Q look-Past SFP

‘The mouse did not look at what he received, but the cow looked at what
(Strict reading: ok what the mouse received / Sloppy reading: * what the cow received)

| Table 1: Children’s acceptance rates of strict and sloppy readings |
|------------------|------------------|------------------|------------------|------------------|
|                  | Group 1 (JPS)    | Group 2 (Non-CM JSS) |
|                  | strict          | sloppy           | strict          | sloppy           |
| Age(1)           |                 |                  |                 |                  |
| 4-year-olds(N=2/ N=2) | 75.0% (3/4)    | 25.0% (1/4)      | 75.0% (3/4)    | 50.0% (2/4)      |
| 5-year-olds(N=4/ N=3) | 100% (8/8)     | 12.5% (1/8)      | 83.3% (5/6)    | 100% (6/6)       |
| 6-year-olds(N=3/ N=4) | 100% (6/6)     | 16.7% (1/6)      | 100% (8/8)     | 62.5% (5/8)      |
| Total (N=9/ N=9)     | 94.4% (17/18)  | 16.7% (3/18)     | 88.9% (16/18)  | 72.2% (13/18)    |
| Adults (N=6/6)       | 100% (12/12)   | 0.0% (0/12)      | 75.0% (9/12)   | 91.7% (11/12)    |

A *wh*-question whose *wh*-phrase originates inside a relative clause (RC) is ungrammatical in English (1) (Ross, 1967). Linguistic research (e.g., Nishigauchi, 1990) shows that *wh*-in-*situ* languages, such as Japanese (2), Korean, and Mandarin Chinese, lack such RC island effects. While there have been many studies on island constraints in the L2 acquisition of English by L1 speakers of *wh*-in-*situ* languages, little attention has been paid to the reverse scenario (Belikova & White, 2009), and none focusing on RC islands. This study addresses this gap by examining whether adult L1-English L2ers of Japanese can come to know that *wh*-questions like (2) are possible in Japanese, despite the ungrammaticality of their L1 counterparts. The Full Transfer/Full Access model (Schwartz & Sprouse, 1996) hypothesizes that the initial state of L2 acquisition is the L1 grammar (“Full Transfer”) but subsequent development is constrained by Universal Grammar (“Full Access”); under this framework, L1-English L2ers of Japanese are expected to demonstrate RC island effects initially but be able to converge on the target Japanese grammar later in development.

**Study:** Sixteen adult L1-English L2ers of Japanese—split into two groups based on the results of a cloze test (Marsden, 2004), Intermediate (*n*=11) and Advanced (*n*=5)—and 16 L1-Japanese controls completed an acceptability judgment task with a 2×2 factorial design (modeled on Sprouse, Wagers & Phillips, 2012): EMBEDDED-CLAUSE (RCs vs. finite complement clauses) × QUESTION (*wh*-questions vs. yes/no-questions); this yields the four conditions in (3). Crucially, all four should be acceptable in Japanese according to previous work, but only condition (3a) does not have an acceptable English counterpart. We thus expect a significant interaction between EMBEDDED-CLAUSE and QUESTION—associated with the superadditive lower rating of (3a)—for Intermediate L2ers but not for native Japanese speakers and Advanced L2ers. There were 40 test items (*k*=10 per condition, Latin-squared) and 40 fillers (grammatical, *k*=20; ungrammatical, *k*=20). Participants rated items on a 4-point scale (plus “I don’t know”).

**Results:** All three groups show the superadditive effect, indicated in Figure 1 as the interaction of EMBEDDED-CLAUSE and QUESTION (data fitted to linear mixed effects models: Native Japanese speakers, β=.61, SE=.15, *t*=3.97, *p*=.001; Intermediate L2ers, β=.93, SE=.17, *t*=5.37, *p*<.001; Advanced L2ers, β=1.45, SE=.19, *t*=7.75, *p*<.001). Interestingly, the native Japanese results contradict prior linguistic work on Japanese, making the results hard to interpret. However, the original design included ungrammatical fillers in which *naze* ‘why’ occurs *in situ* inside an RC, like (4) (*k*=10), because they are attested to be island sensitive in both Japanese and English (e.g., Richards, 2008). A post-hoc analysis reveals that native Japanese speakers rated critical items like (3a) significantly higher than fillers like (4) (β=−1.33, SE=.18, *t*=−7.56, *p*<.001) but L2ers gave them equally low ratings. This finding suggests two points: First, L2ers show the RC island effect transferred from their L1 with types like both (3a) and (4). Second, native Japanese speakers’ lower ratings on (3a) (compared to (3c)) are likely not a true indication of an RC island effect and thus further research is necessary in order to understand the native Japanese results.
(1) * What did Momoko see [the man [that __ bought <what>]]?

(2) Momoko-wa [[ __ nani-o katta] otokonohito]-o mimashita ka?
Momoko-TOP [[ __ what-ACC bought] man]-ACC saw Q 'What did Momoko see [the man [that __ bought <what>]]?'

(3) A factorial design for measuring RC island effects: EMBEDDED-CLAUSE × QUESTION
   a. **Critical:** [+RC, +WH]
      Momoko-wa [[ __ nani-o katta] otokonohito]-o mimashita ka?
      Momoko-TOP [[ __ what-ACC bought] man]-ACC saw Q 'What did Momoko see [the man [that __ bought <what>]]?'

   b. **Control 1:** [+RC, −WH]
      Momoko-wa [[ __ kaban-o katta] otokonohito]-o mimashita ka?
      Momoko-TOP [[ __ bag-ACC bought] man]-ACC saw Q 'Did Momoko see [the man [that __ bought a bag]]?'

   c. **Control 2:** [−RC, +WH]
      Momoko-wa [otokonohito-ga nani-o katta]-to iimashita ka?
      Momoko-TOP [man-NOM what-ACC bought]-C said Q 'What did Momoko say [that the man bought <what>]?'

   d. **Control 3:** [−RC, −WH]
      Momoko-wa [otokonohito-ga kaban-o katta]-to iimashita ka?
      Momoko-TOP [man-NOM bag-ACC bought]-C said Q 'Did Momoko say [that the man bought a bag]?'

(4) * Akemi-wa [[ __ kaban-o naze nusunda] dansee]-o sagashimashita ka?
   Akemi-TOP [[ __ bag-ACC why stole] man]-ACC looked.for Q 'Why did Akemi look for [the man [that __ stole the bag <why>]]?'

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**Figure 1.** Interaction plots per group (error bars represent 95% confidence interval).

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**References**


Plural Forms in Yoron-Ryukyuan

Kibe, Nobuko (National Institute for Japanese Language and Linguistics)
Oshima, Hajime (National Institute for Japanese Language and Linguistics)

In Yoron-Ryukyuan (Yoron hereafter), some kinship and human nouns can take either one of the two distinct plural markers. One is –taa with no pitch rise; it suffixes to the host noun and yields the associative plural reading as exemplified in (1a) and (2a). The other is –fetaa with a pitch rise (represented by “[”); it gives non-associative additive plural reading, as in (1b) and (2b). Even though the additive plural interpretation is a special case of the associative plural interpretation, –fetaa unambiguously marks semantically more restricted interpretation, namely the non-associative additive plural reading.

(1) a. ʔateca-taa “father-PL” a set of people associated with ‘a particular farther’
     b. ʔateca-fetaa “father-PL” a set of people with the attribute ‘father’
(2) a. senfsei-taa “teacher-PL” a set of people associated with ‘a particular teacher’
     b. sensei-fetaa “teacher-PL” a set of people with the attribute ‘teacher’

The above option for two plural markers, i.e. –taa “associative plural” vs. –fetaa “non-associative additive plural”, is only available for a subset of the kinship and human nouns. The split can be accounted for by assuming a noun class with respect to whether the host noun can be used as a vocative expression or not. In Yoron, only the nouns that refer to people who are senior to or socially ranked higher than a referent (normally the speaker) can be used as a vocative expression (Suzuki (1973) and Takubo (1992) made a similar observation about a vocative nouns in Standard Japanese). As summarized in Table 1, the class of nouns that can take the two plural markers and that can be used as a vocative expression coincide.

The class of nouns that can be used as a vocative expression is what Pellard (2010) calls “address nouns” (see also Shigeno & Shirata (2016) and Niinaga (2015)). He describes them as “kinship terms for elders (‘father’, ‘elder sister’, etc.) or status or function names (‘teacher’, ‘chief’, etc.) that are used to address someone” (Pellard 2010: 132). The class of address nouns consists of some of the kinship nouns and human nouns, each of which often forms a distinct category in a nominal hierarchy (e.g. Tsunoda 2009).

We point out that the class of address nouns indeed plays a role in the grammar of Ryukyuan languages. It correlates with the choice of different plural markers in Kamikatetsu-Kikai and Onotsu-Kikai (Shirata et al. 2011, Shigeno & Shirata 2016), Ura-Amami (Shigeno & Shirata 2016), Yuwan-Amami (Niinaga 2010, 2015), Okinoerabu (Yokoyama 2014), and Ōgami-Miyako (Pellard 2010); and the choice of nominative and/or genitive case markers in Irabu-Miyako (Shimoji 2017) and Yonaguni (Yamada 2015) in addition to those languages just mentioned (see van der Lubbe & Tokunaga (2016) for Okinoerabu in this respect). Although it is yet unclear what the linguistic or grammatical base is for such a noun class, we believe that further investigation on it will deepen our understanding of Ryukyuan languages or Japonic languages in general.
Table 1. Plural forms and availability as a vocative expression (“[]” for a pitch rise)

<table>
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<tr>
<th>gloss</th>
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<th>additive plural</th>
<th>vocative use</th>
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<td>grandfather</td>
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<td>产业园-ass</td>
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<td>ok</td>
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<td>ok</td>
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<td>产业园-ass</td>
<td>产业园-ass-taa</td>
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<td>older brother</td>
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<td></td>
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References
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