

Research Centre for Japanese Language and Linguistics
University of Oxford

オックスフォード大学 日本語研究センター
www.orinst.ox.ac.uk/research/jap-ling/

Lexical Representation of Argument Realization Patterns in Pre-modern Japanese: An IPS Research Project

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AHRC International Placement Scheme Showcase

Outline

- ▶ Current AHRC Research Project
- ▶ IPS research project, conducted at the National Institute for Japanese Language and Linguistics (NINJAL)
- ▶ Why NIHU?

The VSARPJ Project

- ▶ Verb semantics and argument realization in pre-modern Japanese: A comprehensive study of the basic syntax of pre-modern Japanese
- ▶ Funding: AHRC, approximately £1 million
 - Period: 1 January 2009 – 30 September 2013
- ▶ Project website: <http://vsarpj.orinst.ox.ac.uk>

The VSARPJ Project: People

- ▶ Bjarke Frellesvig (Principal Investigator)
- ▶ Peter Sells (Co-Investigator; York)
- ▶ Mary Dalrymple
- ▶ Postdoctoral Researchers
 - Stephen Wright Horn (NIHU, Nov 2010–Jan 2011)
 - Kerri L Russell (NIHU, March–May 2011)
- ▶ Doctoral students
 - Zixi You (Split intransitivity in Old Japanese)
 - Daniel Trott (Aspect in Old Japanese)

The VSARPJ Project: External members

- ▶ Anton Antonov (INALCO and CRLAO, Paris)
- ▶ Satoshi Kinsui (Osaka University)
- ▶ Tomohide Kinuhata (Fukuoka University)
- ▶ Yasuhiro Kondo (Aoyama Gakuin/NINJAL)
- ▶ Masayoshi Shibatani (Rice University)
- ▶ Akira Watanabe (University of Tokyo)
- ▶ John Whitman (Cornell University/NINJAL)
- ▶ Yuko Yanagida (Tsukuba University)

The VSARPJ Project

‘Argument realization: the study of the possible syntactic expressions of the arguments of a verb’

(Beth Levin and Malka Rappaport Hovav, 2005, *Argument realization*, p. 1)

- (1) The boy broke the window with a ball
- (2) The boy hit the window with a ball
- (3) The window broke
- (4) *The window hit
- (5) I broke his leg / *I broke him on the leg
- (6) I hit his leg / I hit him on the leg

The VSARPJ Project

- ▶ We are investigating argument realization for the earliest stages of the Japanese language.
 - Old Japanese (mainly 700–800)
 - Early Middle Japanese (800–1200)
 - Late Middle Japanese (1200–1600)
- ▶ This has involved:
 - The creation of the Oxford Corpus of Old Japanese (OCOJ) which includes morphological and syntactic tagging.
 - Collaboration with NINJAL for later stages of pre-modern Japanese

The VSARPJ Project: Publications

- ▶ Frellesvig, Bjarke, Stephen Wright Horn, Kerri L. Russell, and Peter Sells. *The Oxford Corpus of Old Japanese*. <http://vsarpj.orinst.ox.ac.uk/corpus>
- ▶ Russell, Kerri L. and Stephen Wright Horn. 2012. "Verb semantics and argument realization in pre-modern Japanese: A corpus based study." *Chung-Hwa Buddhist Journal*, 25, 129–148.
- ▶ 2012. 通時コーパスと日本語史研究 Corpus based studies of Japanese language history. Tokyo: NINJAL. Bjarke Frellesvig: "オックスフォード上代日本語コーパスについて (The Oxford Corpus of Old Japanese)", pp. 11–14.; Stephen Wright Horn: "On accusative case marking in Old Japanese (上代日本語の対格表示について)", pp. 23–26.; Kerri L. Russell: "Noun incorporation in Old Japanese (上代日本語における名詞抱合について)", pp. 51–52.; Peter Sells: "On null pronouns in Old Japanese (上代日本語のゼロ代名詞)", pp. 63–65.; Daniel Trott: "On tense and aspect in Old Japanese (上代日本語のテンスとアスペクト)", pp. 31–32.
- ▶ Frellesvig, Bjarke, Stephen W Horn, Kerri L Russell, and Peter Sells. 2010. "Verb semantics and argument realization in pre-modern Japanese: A preliminary study of compound verbs in Old Japanese." *Gengo Kenkyū*, 138, 25–65.

IPS research project

- ▶ Lexical Representation of Argument Realization Patterns in Pre-modern Japanese
- ▶ Goals:
 - Investigate ways to extract information about argument structure for each attested verb
 - Encode this information in the Lexicon, which is being developed as part of the VSARPJ project

IPS research project

- ▶ The Lexicon stores information about lexical items:

```
<superEntry xml:id="L030778-main">
  <entry corresp="13987" xml:id="L030778a">
    <form type="stem">
      <orth stage="1">sak-</orth>
      <gramGrp>
        <pos>verb</pos>
        <iType type="QD"/>
      </gramGrp>
    </form>
    <sense n="1">
      <def>bloom</def>
    </sense>
  </entry>
  ...
</superEntry>
```

IPS research project

▶ XML > HTML

sak-

L030778a

Part of speech: **verb**

Conjugation class: quadrigrade

1 Gloss: **bloom**

[statistics](#) [attestations](#) [clause structure](#)

IPS research project

▶ XML > HTML

◦ Statistics [L030778a sak- 'bloom'](#)

Number of attestations in COJ: 223

Number of attestations written phonographically: 54

Number of attestations written phono-logographically: 0

Number of attestations written logographically: 167

Number of attestations written logo-phonographically: 1

Number of attestations with no orthographic representation in the text: 0

Number of attestations in kake/jo structures and other forms with no text: 1

Number of attestations in EOJ: 4

Number of attestations written phonographically: 4

Number of attestations written phono-logographically: 0

Number of attestations written logographically: 0

Number of attestations written logo-phonographically: 0

Number of attestations with no orthographic representation in the text: 0

Number of attestations in kake/jo structures and other forms with no text: 0

IPS research project

- ▶ XML > HTML
 - Statistics

Inflected forms:

inflection	count cOJ	count EOJ
stem	137	1
conclusive	0	0
adnconc	46	1
adnominal	1	0
exclamatory	0	0
imperative	1	0
negative conjectural	0	0
optative	0	0
prohibitive	0	1
infconc	0	0
adninf	0	0
infinitive	14	0
gerund	18	0
continuative	1	0
conditional	2	0
provisional	0	0
concessive	2	1
semblative	0	0
nominal	0	0

IPS research project

- ▶ XML > HTML
 - Attestations

[L030778a sak-](#) bloom

Simple Forms	Text (no gloss)	Text (with gloss)	Trees
	MYS.10.1895	MYS.10.1895	MYS.10.1895
sakaba	NSK.35	NSK.35	NSK.35
sakaba	MYS.16.3787	MYS.16.3787	MYS.16.3787
sakedomo	NSK.114	NSK.114	NSK.114
sakedomo	MYS.10.1857	MYS.10.1857	MYS.10.1857
sakedomo	MYS.20.4323	MYS.20.4323	MYS.20.4323
saki	MYS.2.231	MYS.2.231	MYS.2.231
saki	MYS.3.469	MYS.3.469	MYS.3.469
saki	MYS.8.1461	MYS.8.1461	MYS.8.1461
saki	MYS.10.1841b	MYS.10.1841b	MYS.10.1841b
saki	MYS.10.2291	MYS.10.2291	MYS.10.2291
saki	MYS.10.2329	MYS.10.2329	MYS.10.2329
saki	MYS.12.3129	MYS.12.3129	MYS.12.3129
saki	MYS.13.3222	MYS.13.3222	MYS.13.3222
saki	MYS.17.3991	MYS.17.3991	MYS.17.3991
saki	MYS.19.4161a	MYS.19.4161a	MYS.19.4161a

IPS research project

► XML > HTML

- [L030778a sak-](#) bloom

Clause Structure	Verb	Following Verb	Text (no gloss)	Text (with gloss)	Trees
NP NP-no			MYS.10.1895	MYS.10.1895	MYS.10.1895
NP	sakaba		NSK.35	NSK.35	NSK.35
NP	sakaba		MYS.16.3787	MYS.16.3787	MYS.16.3787
	saki	ka	MYS.2.231	MYS.2.231	MYS.2.231
NP-ni NP	saki		MYS.3.469	MYS.3.469	MYS.3.469
NP	saki	kamo	MYS.10.1841b	MYS.10.1841b	MYS.10.1841b
NP	saki		MYS.10.2291	MYS.10.2291	MYS.10.2291
NP	saki	kamo	MYS.12.3129	MYS.12.3129	MYS.12.3129
NP	saki		MYS.13.3222	MYS.13.3222	MYS.13.3222
NP	saki		MYS.17.3991	MYS.17.3991	MYS.17.3991
NP	saki		MYS.19.4161a	MYS.19.4161a	MYS.19.4161a
NP	saki		MYS.19.4161b	MYS.19.4161b	MYS.19.4161b
NP NP	saki		MYS.19.4166	MYS.19.4166	MYS.19.4166
NP	saki		MYS.19.4177	MYS.19.4177	MYS.19.4177
	saki	pamasutomo	MYS.20.4450	MYS.20.4450	MYS.20.4450
NP-nomwi	sakite		MYS.2.102	MYS.2.102	MYS.2.102

Why NIHU?

- ▶ Opportunity to conduct research with others
 - Obvious benefits of networking, intellectual exchange, and opportunity to acquire new skills
- ▶ Collaboration with NINJAL
 - Corpus development technology
 - “Linguistic think tank”
 - The only place I could do this kind of research

Why NIHU?

- ▶ The placement involved:
 - Learning about their corpus technology and search functions, and comparing it with our markup.
 - Regular meetings with the pre-modern Japanese corpus team, where I typically gave a brief progress report.
 - Access to research materials.
 - Could attend a variety of talks/seminars.

Why NIHU?

- ▶ My personal career development was enhanced by the IPS scheme
 - First academic presentations in Japanese
 - Continued relationship with NINJAL
 - Invitations to give talks in Japan
 - Potential future employment
 - We are applying for additional funding to expand the project, and have recently been selected by the British Academy as an Academy Research Project.
 - If we don't get additional funding, I still have connections with Oxford and NINJAL, which is a great position to be in at this stage in my career.

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Questions and Comments Welcome

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