

A Frame-based Constructicon: A Case study in Japanese



Kyoko Hirose Ohara
Keio University, Japan

1. Introduction

● Two meanings of “Constructicon”

1. Theoretical concept of a structured network of grammatical constructions (CxNs) (Fillmore 1988, Jurafsky 1991)

2. **Actual instantiation of construction descriptions with annotations** in Berkeley FrameNet (FN), Japanese FrameNet (JFN), Swedish Constructicon, FrameNet Brasil projects (Fillmore 2008, Fillmore et al. 2012)

● Claims

➢ Meaning structures of CxNs may or may not involve **Semantic frames defined/used in FNs**

➢ **Frame-based five-way classification of grammatical CxNs** proposed in Ohara (2014) is useful in building a Constructicon

● Frame-based five-way classification of CxNs

- [1] CxNs evoking **Semantic** frames
- [2] CxNs evoking **Interactional** frames
- [3] CxNs compositionally interpretable
- [4] CxNs whose more elaborated CxNs evoke frames on their own
- [5] CxNs with omission of repetitive position-specific constituents



[2] CxNs evoking **Interactional** frames

The **Suspended-Clause** construction

- CE: *Clause*
- Evokes the ***Inference-intensive frame**, in which the Speaker expects the Hearer to understand his/her situations. (Ohori 2002: 130)

sore zya ne
that DAT-TOP SFP
{ [*Clause* kir -ase te-morau] [^{CEE} kara] }
hang-up CAUS AUX because

(Lit.) ‘That’s it. Because I’ll hang up now.’

[3] CxNs compositionally interpretable

The **Subject-Predicate** construction

- CEs: *Subject, Predicate*
- Supplies an external argument (*Subject*) to a phrase that is missing one (*Predicate*).

{ [^{Sub} syuzyu no kadai e no taiao ga]
various GEN problem GOAL GEN dealing.with NOM

[^{Pre} konnan ni natte ki te iru]
difficult DAT become COME ASP

‘Dealing with various problems has become difficult.’

[4] CxNs whose more elaborated CxNs evoke frames on their own (cf. Goldberg 2006)

The **V-te iru** construction

- CE: *Verb*
- (a) Evokes the **State** frame with state verb
haha to musume wa yoku { [^{Verb-State} ni] [^{CEE} te iru] }
mother CONJ daughter TOP much alike
‘(The) mother and (the) daughter are much alike.’

(b) Evokes the **Activity** frame with activity verb

kodomo-tati ga { [^{Verb-Activity} hasit] [^{CEE} te iru] }
child PL NOM run
‘(The) Children are running.’

(c) Evokes the ***Resultant_state** frame reading with achievement verb

koi kiri ga numa no ue ni { [^{Verb-Achievement} ori] [^{CEE} te iru] }
thick fog NOM mire GEN top LOC fall
‘(A) thick fog has fallen over (the) mire.’

[5] CxNs with omission of repetitive position-specific constituents

The **Shared-Completion** construction

- CEs: *Sharer1, Sharer2, Punctuation, Completion*
- The *Completion* is interpreted as completing each of the *Sharers*.

{ [^{Sha1} kaigai haken gata to site 11 mei] [^{Pun,}] [^{Sha2} genti taizai
overseas dispatch type for people local stay
gata to site 4 mei] [^{Pun,}] [^{Sha3} rainiti gata to site 4 kumi]
type for people visit.Japan type for group
[^{Com} no simei o okonai masita] }
GEN nomination ACC do POLITE-PST

‘(The project) nominated 11 people for the overseas dispatch type, 4 people for the local stay type, (and) 4 groups for the visit-Japan type.’

2. FN Lexicographic annotation vs. Constructicon annotation

| | FN Lexicographic annotation | Constructicon annotation |
|-----------------------|--|--|
| Targets of Annotation | <ul style="list-style-type: none"> • Simple words • Multiwords (e.g. Phrasal verbs; Support CxNs, etc.) | <ul style="list-style-type: none"> • CxNs with internal and external structures |
| Information Annotated | <ul style="list-style-type: none"> • Frame names • Frame-Evoking Elements (FEEs) • Frame Elements (FEs) • Phrase Types (PTs) • Grammatical Functions (GFs) | <ul style="list-style-type: none"> • Construction-Evoking Element (GEE) • Constructs • Construct Element (GEs) |

3. Building a Japanese Constructicon in JFN with Frame-based five-way classification of CxNs

[1] CxNs evoking **Semantic** frames

The **Comparative_inequality** construction

- CEs: *Entity1, Entity2, Feature*
- Evokes the **Comparative_inequality** frame, which reports inequalities between two *Entities*

{ [^{Entity1} kore (no hoo) ga] [^{Entity2} are] [^{CEE} yori] [^{Feature} nagai]
this GEN side NOM that than long

‘This is longer than that.’

4. Summary

- **Frame-based five-way classification of CxNs** is useful, since the five types are **mutually exclusive**
- In building a Constructicon, we **need both Semantic and Interactional frames**, although very few of the latter are defined in FNs so far
- Remains to see whether the five types are exhaustive or not