The role of exemplification in the on-line construction of categories

EVIDENCE FROM JAPANESE

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aim of the research project

The aim of this talk is to analyse the role played by exemplification as an **instrument of cognition**, especially with regards to the creation and communication of **categories**.

We will examine the morphosyntactic and functional properties of some **Japanese exemplifying constructions** (ya, tari, toka, nado)

exemplifying constructions → linguistic constructions that indicate the status of example of one or more noun phrases or verbal phrases

theoretical introduction

THE EXEMPLAR-DRIVEN CONSTRUCTION OF CATEGORIES

Investigations in cognitive psychology (cf. Barsalou 1983, Smith e Samuelson 1997) have demonstrated that category structure is not stable but **dynamic**; it is **context-dependent** and **computable within a given situation** (construal).

1. They **reject** the notion of fixed categories with permanent representations.
2. Categories are constantly **re-interpreted according to the context** (Barsalou 1983, 2010).
3. Category boundaries are **fixed** depending on the context (Croft and Cruse 2004).

theoretical introduction

Important issues include the following: How do productive conceptual and linguistic mechanisms produce ad hoc categories?

(Barsalou, 2010:87)

Exemplification: linguistic strategy in order to **anchor** the categories to the situational context → providing some **concrete** members of the category as a starting point to make associative inferences.

data collection

- Corpus-based approach: the Japanese plain text and Co-occurrences at LCC → based on web pages (from instruction manuals to transcriptions of interviews).

The great virtue of a corpus-based approach is that corpora allow to **directly observe the linguistic reality**.

- For the purpose of this talk I analysed 200 occurrences for each of the following Japanese exemplifying constructions: *ya, tari, toka, nado* (however, 220 occurrences have been excluded → other functions).

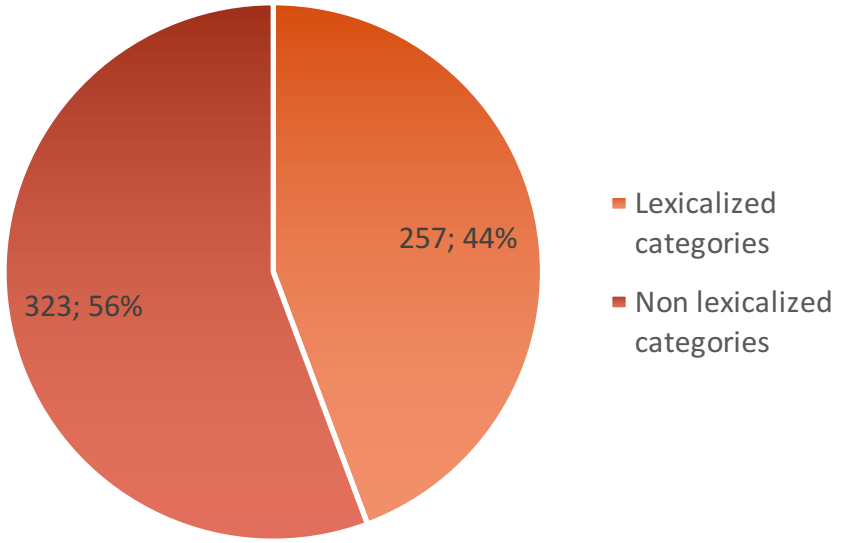
The cognitive role of exemplification

LEXICALIZED VS NON LEXICALIZED CATEGORIES

It is possible to distinguish between **two** main patterns:

1. **Lexicalized categories** → the speaker communicates the category through a **label** and one or more examples;
2. **Non lexicalized categories** → the speaker uses **only** the examples to build and communicate the category.

Label: 1) generic term that implies the presence of a set of elements, 2) highlights the defining feature that characterizes the members of that specific set.



The cognitive role of exemplification

THE NOTION OF LEXICALIZED CATEGORY

The possibility of lexicalizing a category is not an inherent feature which can draw the distinction between types of categories, but rather an **arbitrary communicative strategy** to create and express categories in specific contexts.

- The label represents the **lowest common denominator** → the essential attribute shared by all members of the category.

- The presence of the label **facilitates** the interpretation of the category → the hearer can make a minor cognitive effort, she has no longer to infer by herself the common feature of the mentioned examples.

The presence/absence of a label leads to **three** possible situations:

The cognitive role of exemplification

SIMPLE LABEL, OR "COMMON CATEGORIES" LABEL

1. the label is a **general single lexical noun → simple label, or "common category" label**

Yōryō-wa		*50MB-ni*	*seigensareteiru*	*ga,*	*dokyumento-ya*	*seishiga*
Capacity-TOP		50MB-DAT	limit:PASS:STA	but	document-YA	still.image
toitta	***fairu***	*deareba*	*jūbun*	*darou.*		
such as	**files**	COP.COND	enough	MOD		

'Although the capacity per file is limited to 50MB, if the file is something like a document or a still image, it would be enough.'

The cognitive role of exemplification

SIMPLE LABEL, OR "COMMON CATEGORIES" LABEL

- Simple labels make reference to **well-known and accessible** common categories which act as **abstract models** by means of which speakers may built less-known context-dependent categories on the fly.
- The cognitive effort is required not to retrieve the members of the category, but to **link** the abstract notion provided by the label to the actual category relevant **in the specific context**.

Exemplification facilitates the process of narrowing down the abstract category and tailoring it to the specific context (Ariel and Mauri, 2016).

The cognitive role of exemplification

COMPLEX LABEL, OR "AD HOC CATEGORY" LABEL

2. the label is a **complex expression → complex label, or "ad hoc category" label**

Doraggu&doroppu	*suru*	*dake*	*de*	*shashin-o*	*appurōdoshitari,*
drag&drop	do	only	STR	photo-ACC	upload:TARI
daburukurikku-de	*suraidoshō-o*		*saiseisuru*	*nado,*	
double click-STR	slideshow-ACC		play	NADO	
shoshinsha	***demo***	***kaitekini***	***riyōdekiru***	***kantanna***	
beginner	GRD:also	simply	use:POT	simple:AGG	
***sōsa**-o*	*jitsugen.*				
operation-ACC	realize				

''Realize **simple operations that can be used comfortably even by beginners**', such as playing a slideshow in full screen with a double-click, uploading photos by simply drag-and-drop and so on.'

The cognitive role of exemplification

COMPLEX LABEL, OR "AD HOC CATEGORY" LABEL

- The label consists of a nonspecific super ordinate noun and some sort of linguistic adjuncts which provide a **higher degree of contextualization** and a more precise reference to an ad hoc category.
- The stable association with fixed mental representations is **not available** with complex labels (Barsalou 1983): they are created **on the spot** according to the speaker's ability to summarize the defining feature of the category.

Exemplification adds further specification, it helps to disambiguate the reference to the category. Moreover, it further contextualizes the category.

The cognitive role of exemplification

NON LEXICALIZED CATEGORIES

3. no label → **non lexicalized category**

*Nyūgaku-**ya***	*shūshoku-**nado**-de*	*tan-chōkikan,*	*biza-ga*
studying.abroad-YA	finding.job-NADO-CAUS	short-long period of time	visa-NOM
hitsuyō	*tonaru.*		
necessary	become		

'(To stay) for a short or long period of time in order to study or looking for a job or something similar, a visa becomes necessary.'

Here we can identify:

1. two **exemplars**: studying abroad, finding a job;
2. two **non-exhaustive tags**: 1) non exhaustive connective *ya*, 2) general extender *nado*.

The cognitive role of exemplification

NON LEXICALIZED CATEGORIES

- The process of identify and codify a category label may demand **great cognitive effort (speaker)**.
- There is no explicit mention of the property shared by the examples. The property must be inferred by comparing the mentioned exemplars, in order to create correctly the category → **great cognitive effort (hearer)**.

Exemplification guides the interlocutor through a process of **interpretation by abstraction**, where the mentioned exemplars work as **inferential triggers**.

The cognitive role of exemplification

NON LEXICALIZED CATEGORIES

- **Saturation:** the use of a non-exhaustive tag (i.e., *ya, nado*) indicates the existence of additional exemplars whose identity has to be saturated on the basis of the specific context;
- **Associative reasoning:** additional members must be associated, or associable, to the explicit exemplars on the basis of a shared property → comparing the mentioned exemplars (i.e., studying abroad, finding a job) looking for their minimum common denominator.
- **Abstraction:** on the basis of the property, the hearer is able to determine the other members → this ultimately leads to the construction of the superordinate category.

(cf. Mauri 2016)

The linguistic coding of the category

Does the language work actively to trigger and facilitate these processes?

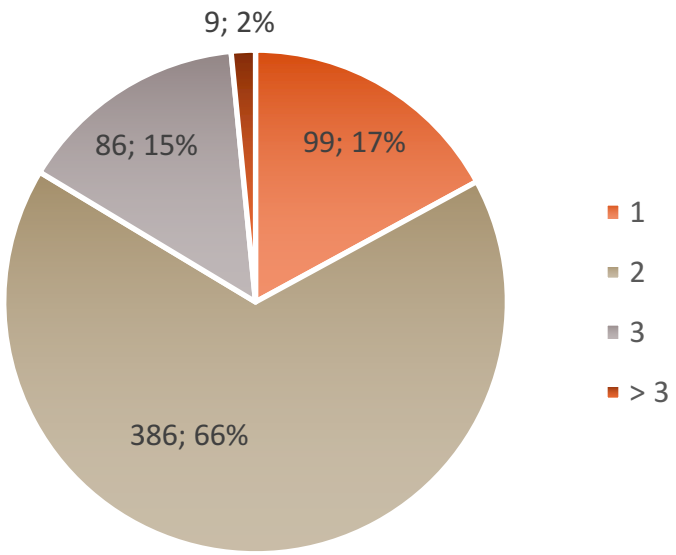
The linguistic coding of the category

Exemplifying construction: 1) example(s) 2) non-exhaustive tag

1. **Non-exhaustive tag** → explicitly triggers the inferential processes. Heterogeneous group → languages show many different (dedicated) strategies (non-exhaustive connectives, derivational strategies, general extenders, associative plurals… cf. Mauri and Sansò 2016).

2. **Examples** → must be compared in order to infer the shared property.

Linguistic properties of the example(s)



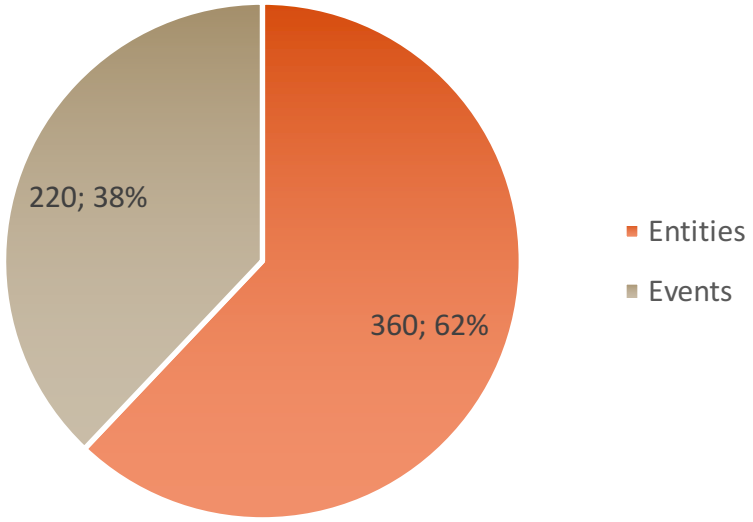
NUMBER OF EXAMPLES

Speakers tend to use **two examples**, even if there are no constrains on the number of examples that can be used.

> 3 examples → very rare

This favours the **comparison** of the mentioned exemplars → two examples are the minimum (linguistic economy) to **infer the common shared property** by comparison.

Linguistic properties of the example(s)



SEMANTIC PROPERTIES OF THE EXAMPLES

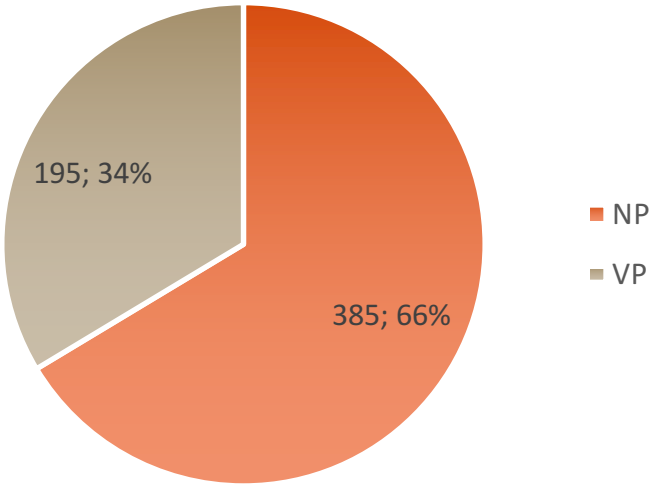
- It proves that categories may be driven from exemplars **of different kinds** (and not only concrete objects, cf. Rosch 1976, Barsalou 1983).

However, the tendency is to create categories of entities. In particular, 221 of 360 are **concrete entities** (vs. abstract concepts)

This favours a process of **actualization** → making the abstract (i.e., the category, but also the category label) concretely real, in order to **facilitate the processes of elaboration** and comprehension of the category.

Linguistic properties of the example(s)

SYNTACTIC PROPERTIES OF THE EXAMPLES



Both strategies are indeed possible, but examples – generally – tend to be coded by **noun phrases** (frequently, just **nouns**).

"Whereas a **noun** profiles a thing, a relational predication designates a set of interconnections. A **verb**, moreover, is an especially **complex relation**, in that it profiles a series of relational configurations, and further specifies their continuous distribution through time" (Langacker, 1987:21-22).

Linguistic properties of the example(s)

SYNTACTIC PROPERTIES OF THE EXAMPLES

- Use of **verbal nouns** to encode categories of activities (instead of verbs), e.g., *nyūgaku* "studying abroad" → they include the event structure, but it is embedded in the holistic conceptualization of nouns.

"Explode and explosion are not considered semantically equivalent: nominalization involves a conceptual reification whose character can be explicated with reference to the notional definition proposed for the noun and verb classes" (Langacker, 1987:22).

This favours the process of **elaboration of the examples** → comparison between actions which excludes any relational configurations and their distribution through time requires a minor cognitive effort, **simplifying** the process of abstraction.

THE PROCESS OF ELABORATING AND COMPARING THINGS (NOUNS) IS EASIER THAN THE PROCESS OF ELABORATING AND COMPARING PROCESSES (VERBS).

Conclusion

Exemplification is both a **cognitive** and a **discursive** process:

- ✓ At the **cognitive** level: 1) it guides the interlocutor through a process of **interpretation by abstraction**, where the mentioned exemplars work as **inferential triggers** (non lexicalized categories), 2) it helps to **contextualize and actualize** abstract already established categories (lexicalized categories).

- ✓ At the **linguistic** level: exemplifying constructions and examples are chosen and *encoded* in order to facilitate these processes → studying linguistic exemplifying constructions may help us to understand further the cognitive role of exemplification.

どうもありがとうございます
Thank you, Grazie

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