Languages as Reflections of Cultures, Open Systems, Perception, and Affordance:
With Special Reference to the Japanese Language

# Kazumi SUGAI Hyogo University of Teacher Education, Japan

The aim of today's talk is to make clear how language affects the way we see the world; (1) we shall see the real world with regard to culture, however, not directly, but through languages. (2) we would learn how language has the nature of an open system. (3) would describe the common link between language and perception. (4) we would understand how language is sensitive to affordance in some cases.

#### 1. Languages and Cultures

· In Memory of Takao Suzuki, Words in Context (1985)

Table 1: Number of colors in the rainbow

from Gleason (1961) and Suzuki (1990)

language	Japanese	Korean	English	Spanish	German	Russian	Shona	Bassa
number	7	7	6	6	6	5	3	2

· Linguistic Relativity Hypothesis (Whorf, 1956; Lucy, 1992).

Language influences how we see the world to some extent.

· Relationship of Human Beings, Real World, and Language (cf. Langacker, 1987)

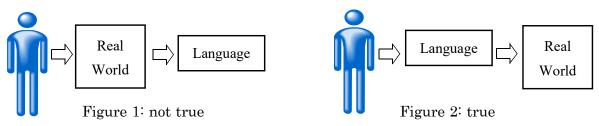


Table 2: Historical Transition in Japanese

Old Japanese	aka	ao			aka		
Modern Japanese	murasaki ao		midori	ki	ak	a	
Contemporary Japanese	murasaki	ai	ao	midori	ki	daidai	aka
English	violet		blue	green	yellow	orange	red

· Distinction between Butterflies and Moths

Table 3: Words for Butterfly and Moth

English	butterfly	moth	
Japanese	chou (蝶)	ga (蛾)	
Italian	farfalla	tarma	
Korean	nabi	nabang	
German	Schmetterling		
French	papillon		
Nepalese	putali		

Table 4: General Distinction

	butterfly	moth
wings at rest	closed	open
color	bright	dull, brown
active	daytime	nighttime
antenna	thin	thick

· Differences in the Lexical System

φ	
tortoise	turtle

želva mořska želva
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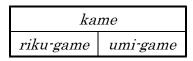


Figure 3: English

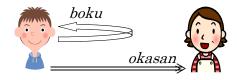
Figure 4: Czech

Figure 5: Japanese

·What is crucially different;

between whales and dolphins, between eagles and hawks, and between salmon and trout

· How to call oneself and the other (Suzuki, 1985, 1987)



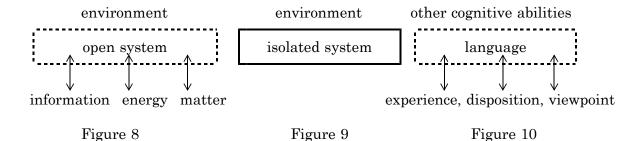
okasan

Figure 6

- Figure 7
- Examples
  - (1) Okasan-wa isogashii-no. mother-TOPIC busy-INTERROGATIVE "Are you busy? / (literally) Is the mother busy?"
  - (2) Okasan-wa kaimono-ni iku-ne. mother-TOPIC shopping-DATIVE go-PARTICLE "I'm going shopping."

## 2. Language as Open Systems

- · An open system is a system that has external interactions with its external environment.
- · An isolated system is a system that has no interactions with its environment.



- · Relationship of Language to Experience
  - (3) A trumpet resembles a cornet.
  - (4) A cornet resembles a trumpet.

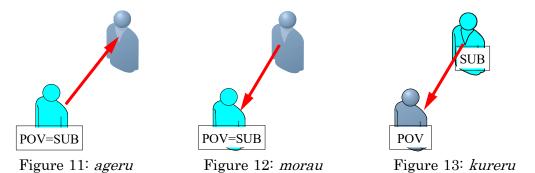
Langacker (1988)

- · Relationship of Language to Disposition
  - (5) The professor is an excellent scholar, but a heavy drinker,
  - (6) The professor is a heavy drinker, but an excellent scholar.
- · Relationship of Language to Viewpoint
  - (7) A man chases a woman.
  - (8) A woman is chased by a man.
- · Japanese yari-morai verbs (verbs for giving and receiving)

Table 5: Meaning and Roles in Japanese yari-morai verbs

	meaning	speaker	opponent
ageru	"give"	giver	receiver
morau	"receive"	receiver	giver
kureru	"give"	receiver	giver

· Subject and Viewpoint in Japanese yari-morai verbs



(9) Watashi-wa tomodachi-ni hon-o age-ta.
I-TOPIC friend-DATIVE book-ACCUSATIVE give-PAST
"I gave a book to friend."

- (10) Watashi-wa tomodachi-kara hon-o mora-tta.

  I-TOPIC friend-ABLATIVE book-ACCUSATIVE receive-PAST

  "I received a book from the friend."
- (11) Tomodachi-ga hon-o (watashi-ni) kure-ta.
  friend-NOMINATIVE book-ACCUSATIVE (me-DATIVE) give-PAST
  "A friend gave me a book."

# 3. Perceptional Properties in Language

· Motion and Rest

Motion is the phenomenon in which an object changes its position over time. Rest is the state at which an object is stationary or not moving.

## Motion-Rest Relativity (MR-R)

When you regard a moving object as stationary, you see a stationary object as moving.

- (12) When I was driving, a honeybee came into my automobile.
- (13) When I was driving, mountains came into sight.
- (14) We are approaching Tokyo.
- (15) Tokyo is approaching.

Honda (1994)

(16) When I left for Czech in the morning, my family saw me off in front of the house. In the taxi I was watching them moving further and further away.

#### Motion-Rest Relativity (extended version)

(17) The glasses are getting weaker.

When you regard a changing object as static, you see a static object as changing.

- · A case study of the verb lose
  - (18) You lost two apples.

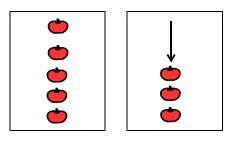
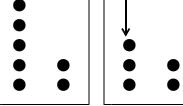
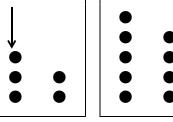


Figure 14 Figure 15

(19) In the second half, Czech lost two goals.





Similar example from Yamanashi (2004:11)

Figure 16 Figure 17

Figure 18

#### 4. Affordance in Japanese Expressions

· What is Affordance:

"the possibility of action that is provided by the environment to a perceiver" Gibson (1978)

(20) Watashi-wa isu-ni suwaru.

I-TOPIC chair-LOCATIVE sit
"I sit on a chair."

(21) ?? Watashi-wa isu-ni tatsu.

I-TOPIC chair-LOCATIVE stand
"I stand on a chair."

(22) Watashi-wa isu-no-ue-ni tatsu
I-TOPIC chair-GENITIVE-top-LOCATIVE stand
"(literally) I stand on the top of a chair."

Table 6: Case-marking of isu in Japanese

Example	object	act (verb)	affording	marking
20	chair	sit	0	simple
22	chair	stand	×	complex

(23) Watashi-wa hashigo-o noboru
I-TOPIC ladder-ACCUSATIVE climb
"I climb a ladder."

(24) ?? Watashi-wa hashigo-o aruku
I-TOPIC ladder-ACCUSATIVE walk
"I walk a ladder."

(25) Watashi-wa hashigo-no-ue-o aruku
I-TOPIC ladder-GENITIVE-top-ACCUSATIVE walk
"I walk on a ladder."

Table 7: Case-marking of hashigo in Japanese

Example	object	act (verb)	affording	marking
23	ladder	climb	0	simple
25	ladder	walk	×	complex

### 5. Concluding Remarks

- [i] Language influences thought to some extent, that is, the way we see the real world differs in ways from language to language.
- [ii] Language has characteristics common to open systems, in that language is related to experience, disposition, and particularly viewpoint.
- [iii] From the standpoint of perceptual relativity, even apparently irregular phenomena can be explained in the natural way.
- [iv] Some Japanese expressions reflect Affordance, that is, the possibility of action provided by the environment to perceivers.

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