

日本語のL1 ナラティブにおける移動事象の表現 ——発達的アプローチを用いて——

The Expression of Motion Events in Japanese L1 Narratives: A Developmental Approach

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ABSTRACT

近年, 様々な言語や文化で使用されている移動表現に関する研究が活発に行われている。本研究では, *Frog, where are you?* (Mayer, 1969) という絵本を用いて, 子どもと大人が母語である日本語で物語を作成する際の移動表現に注目した。その結果, 日本語母語話者には, 動詞枠付け言語 (verb-framed language) で特徴的な経路動詞や後置語句を使用する傾向がみられ, 衛星枠付け言語 (satellite-framed language) で一般的に用いられる様態動詞の使用は少なかった。ただし, 擬音語・擬態語, 副詞表現を使うなど他の方法によって様態描写が付加されていた。また, 軌跡の表現もあまり精緻化されていなかった。一方で, 静的な終点に焦点を当てるなど, 静的な場所の描写が多かった。これらの結果は, 動詞枠付け言語における移動表現について報告されている傾向を多く反映している。このように, 母語である日本語のツールを使ってナラティブを作ることで, 子どもであっても, 言語に適した修辭的なスタイルを実現させつつ, “thinking for speaking” を行うことができる。

In recent years, there has been a considerable amount of research on the topic of expressions of motion across languages and cultures. This study focuses on the expression of motion in children and adults creating stories in their first language, Japanese. Oral and written narratives were elicited by using the wordless picture book, *Frog, where are you?* (Mayer, 1969). The results show that the Japanese narrators tended to use Path verbs, as is common in verb-framed languages, instead of Manner verbs, which are common in satellite-framed languages. However, manner was added in other ways, such as by using onomatopoeia / mimesis and adverbial expressions. Furthermore, trajectories were not highly elaborated. Instead, there were many descriptions of static locations, such as those focusing on the static end-point. These findings reflect many of the tendencies reported for expressions of motion in verb-framed languages. Using the tools offered to them by their first language, Japanese, to create stories, even child narrators demonstrate a rhetorical style which is language-appropriate and reflects “thinking for speaking” (Slobin, 1996a, p. 76).

1. Introduction

Research on the topic of expression of motion events has been strongly influenced by Talmy (1985, 1991, 2000), who analyzed motion events in terms of various components. *Motion* refers to displacement in space, with different locations at time 1 and time 2, while *Path* refers to direction of motion such as *into*, *up*, and *down*. *Figure* describes the person/animal or object that is moving, while *Ground* refers to the landmarks that define the path including source, goal, and medium. Lastly, *Manner* refers to the way in which motion is carried out, including speed and movement pattern.

According to Talmy (1985, 1991, 2000), there are two types of languages regarding the expression of Path, or directionality. In verb-framed languages, including the Romance languages (e.g., French, Spanish, Italian), Semitic languages (e.g., Arabic, Hebrew), Turkish, Korean, and Japanese, Path is expressed by a main verb in a clause, as in: *He entered the room. She descended the stairs.* On the other hand, in satellite-framed languages, such as Germanic languages (e.g., English, German, Dutch), Path is expressed through elements or satellites associated with the verb, such as prepositions or particles (e.g., *in*, *out*, *up*), as in *He went into the room. She went down the stairs.* Different languages use different strategies to express Path.

This typological contrast between verb-framed and satellite-framed languages also influences Manner of motion. In verb-framed languages, the verb describes Path, and Manner needs to be added by using, for example, an adverbial expression, as in *pyon to dete-kita* (*it came out with a hop*). In satellite-framed languages like English, the verb can be a Manner verb (e.g., *run*, *crawl*, *jump*), and Path is described in a satellite, as in *He jumped out*. In this way, Manner is easier to express in a satellite-framed language, both syntactically and lexically.

In creating a message in words, each language user takes a perspective, deciding how to “frame” the content that they are trying to express. In addition, depending on the language being used, different tools are available. Slobin (2002) suggested that “each language provides a set of preferred perspectives on events” (p. 7). Regarding motion events, he explained that speakers of satellite-framed languages pay close attention to Manner, while speakers of verb-framed languages seem to attend to Manner only when it is especially noteworthy. His manner-saliency hypothesis described verb-framed languages as low-manner-salient, having less elaborated path and manner, while having more elaborated descriptions of locations of protagonists and objects, as well as end-states of motion (e.g., Slobin, 1996b, 2004). On the other hand, satellite-framed languages were described as high-manner-salient, with more detail in dynamic motion descriptions.

Later, other researchers such as Matsumoto (e.g., 2017a, 2017b, 2018) proposed alternative explanations for motion expression descriptions. In his work on Japanese motion-related expressions, Matsumoto (2018) explained that a combination of a local noun and a postposition, such as *X no naka ni*, would be equivalent to the preposition *into* in English. Adpositions mark Path schemas, representing Path phases or Directionality (e.g., *ni* ‘to’, *e* ‘to, toward’, *kara* ‘from’, *made* ‘as far as’) while there are a number of local nouns to express spatial relations (e.g., *naka* ‘inside’, *soto* ‘outside’, *ue* ‘top’, *shita* ‘bottom’, *yoko* ‘side’).

Matsumoto (2017a, 2018) also discussed that many Japanese verbs of motion conflate the fact of motion with a simplex or complex Path schemas (e.g., *to*, *to + in*) including deictic verbs (*iku* ‘go’, *kuru* ‘come’) and nondeictic path verbs (e.g., *agaru* ‘ascend’, *oriru* ‘descend’, *ochiru* ‘fall’, *deru* ‘exit’, *hairu* ‘enter’, *tooru* ‘go through’). Regarding the latter, many of the nondeictic path verbs have

causative counterparts, such as *otosu* ‘make fall’, and *dasu* ‘make exit, take out’. Furthermore, a small number of verbs conflate the fact of motion with Manner of motion, as in *aruku* ‘walk’, *hashiru* ‘run’, *kakeru* ‘run’ and *tobu* ‘fly’. These manner verbs are relatively general in meaning. Moreover, Japanese uses verb complexes, V-V compounds (e.g., *hashiri-mawaru* ‘run around’) and V-te-V complexes (e.g., *hashitte-iku* ‘go running’), which allow for different types of combinations.

In addition, Japanese has a rich set of adverbials to represent subtle differences in Manner of motion (e.g., Akita, 2017; Matsumoto, 2018; Toratani, 2012). These include non-mimetic manner adverbs (e.g., *yukkuri* ‘slowly’, *isoide* ‘hurriedly’) and mimetic or onomatopoeic adverbials which are often used in Japanese to describe motions (e.g., *pyon-pyon* ‘in a hopping manner’, *teku-teku* ‘in a trudging manner’).

Slobin and his colleagues collected narratives across a wide range of satellite-framed and verb-framed languages. Slobin (2002) reported that even three-year-olds using satellite-framed languages (i.e., English, Mandarin Chinese, Russian) use Manner verbs in their motion event descriptions as compared to speakers of verb-framed languages (i.e., Spanish, Turkish, Hebrew), who tend to use Path verbs, or simple verbs of motion, such as *come* and *go*. In addition, Slobin (2002) found that the 3-year-old pattern is demonstrated at all ages (3, 4, 5, 9, and adult) with no developmental changes in any of the six languages studied. This indicates that young children master this at a very early age.

This purpose of this study is to examine how motion events are depicted by Japanese monolingual children and adults, to see if their tendencies overlap with those reported of other verb-framed languages, especially regarding use of Path/Manner verbs, manner saliency, as well as overall rhetorical style.

2. Methodology

The methodology for this study was adapted from that of Berman and Slobin’s (1994) research project using narratives elicited from the wordless picture book, *Frog, where are you?* (Mayer, 1969).

2.1 Participants

Oral Narratives: The Japanese Frog Story oral narratives were collected from monolingual Japanese children (ages 3, 4, 5, 7, and 9) and adults¹. There were approximately 15 participants in each age group. For comparison purposes, English Frog Story oral narratives were gathered from the English-Slobin database in the Frog Corpora on the CHILDES website. Narrators were both adults and children (ages 3, 4, 5, and 9).

Written Narratives: Written Frog Story narratives were collected from 100 adult Japanese and 100 adult English native speakers respectively. The majority of the participants were university students, studying in the greater Tokyo metropolitan area, while some of the English native speakers were studying at universities in the United States.

2.2 Procedure

The narrators were told to look through the book first and then, upon comprehending the story, to create a story. They could look at the pictures while they were telling the story. The oral narratives were recorded and the written narratives were either handwritten or in electronic form.

In the story, a boy and his frog search for his pet frog who has run away. In their search for the frog, the boy and his dog encounter many different characters (e.g., owl, bees, mole, deer) and the story is rich in motion events (refer to Berman & Slobin, 1994 for a description of the overall Frog paradigm).

2.3 Coding and Analysis

In the data analysis, close attention was paid to three specific scenes, which were selected based on their rich motion events. The three scenes were:

1. Frog Escape Scene: The frog escapes from his jar while the boy and dog are sleeping.

2. Owl Scene: The boy climbs a tree to search for his frog when an owl comes flying out, knocking the boy to the ground. At the same time, the dog is being chased by a swarm of bees and is running away furiously.

3. Deer Scene: After running with the boy clinging to his antlers, a deer flings the boy off a cliff. The boy and the dog fall into a pond below.

As all three scenes were rich in motion events, all motion expressions were collected from the data (e.g., verbs of motion, verb complexes, postpositions, adverbial expressions) and analyzed.

3. Results

3.1 Japanese Expressions of Motion: Verbs & Verb Complexes

In the Japanese narratives, there were few examples of manner in the main verb. Narrators relied heavily on path verbs to describe their motion events (e.g., Nakamura, 2019, 2021, 2022)². This is consistent with descriptions of verb-framed languages (e.g., Talmy, 1985, 1991, 2000; Slobin, 1996b). One interesting finding was that the number of different path verbs used to depict the motion events was relatively limited. They included both deictic verbs, such as *iku* ‘go’ and *kuru* ‘come’, and nondeictic path verbs (e.g., *agaru* ‘ascend’, *sagaru* ‘descend’, *ochiru* ‘fall’, *hairu* ‘enter’, *deru* ‘exit’).

The three-year-olds and four-year-olds were likely to use one-word utterances or simple sentences in their motion descriptions, while the five-year-olds and older were more likely to use compound sentences and verb complexes, such as a V-V

compounds (e.g., *nige-dasu* ‘exit escaping’, *nuke-dasu* ‘sneaking out’, *tobi-deru* ‘exit flying’) or V-te-V complexes such as *tonde-kuru* ‘come flying’. Deictic verbs such as *iku* ‘go’ and *kuru* ‘come’ only occurred in V-te-V complexes, as in *hashitte-iku* ‘went running’.

3.1.1 The Escape Scene

For the Frog Escape scene, the selection of verbs to describe the frog’s actions were very limited: the most common verbs were *deru* ‘exit’, *tobu* ‘fly’, *nigeru* ‘escape’. *Deru* ‘exit’ was the most popular verb for the 3-year-olds and the 4-year-olds, while *nigeru* ‘escape’ was the most popular for the 5-, 7-, and 9-year-olds. Adults also used *nigeru* ‘escape’ more than any other verb, but used a wider range of verbs.

1. *soto deta no.* (3;06)
(The frog) exited outside.
2. *kaeru nigeru.* (4;06)
(The) frog escapes.
3. *kono naka ha itteta.* (4;00)
(The frog) was in here.

While the 3-year-olds used only single verbs, the older narrators gradually used a wider variety of V-V compounds or V-te-V complexes.

4. *kaeru ga tobi-dashiteru no.* (4;07)
(The) frog is flying out.
5. *kaeru ga dete-kita.* (4;00)
(The) frog came out.

3.1.2 The Owl Scene

In the Owl scene, there were several important characters, such as the owl, the boy, the bees and the dog. Regarding the owl, the following verbs appeared most frequently: *nigeru* ‘escape’, *deru* ‘exit’, and *tobu* ‘fly’, with *deru* ‘to exit’ often appearing in a V-te-V complex as in *dete-kuru*

‘come out’ and *tobu* ‘fly’ being used as a V-V compound as in *tobi-dasu* ‘to fly out’.

6. *fukuroo nigeta.* (3;09)

(The) owl escaped.

7. *sore to ki kara dete-kita no.* (4;11)

And (the owl) came out of (the) tree.

8. *fukuroo ga tobi-dashite.* (4;11)

(The) owl flew out.

This finding is consistent with Slobin (2002), in which narrators using verb-framed languages almost always described the appearance of the owl with a Path verb, meaning “exit” while most narrators using satellite-framed languages used a Manner verb together with a Path satellite to describe the appearance of the owl, such as: *An owl flew out and bammed him on the ground* (5;08).

The falling motions of the boy were described with various verbs describing falling: *kokeru*, *korobu* and *ochiru*.

9. *kokechatta.* (3;00)

(The boy) fell.

10. *ningen ga koronjatta.* (4;00)

(The) human fell.

11. *kodomo ga ochita no.* (4;11)

(The) boy fell.

The description of the motion of the bees were described with mainly two expressions, *deru* ‘exit’ and *oi-kakeru* ‘chase’. Some older narrators chose to use Manner verbs, such as *osou* ‘to attack’.

12. *hachi ga dete-kita.* (4;04)

(The) bees came out.

13. *hachi ga inu ni oi-kaketa no.* (5;01)

(The) bees chased the dog.

14. *hachi ga inu ni osoi-kakatte.* (adult)

(The) bees attacked the dog.

Lastly, the dog’s motions were often expressed with the following verbs: *nigeru* ‘escape’, *hashiru* ‘run’, and *oi-kakerareru* ‘be chased’. Here we see the passive form in *oi-kakerareru* ‘to be chased’.

15. *wanwan ga nigeta.* (4;08)

(The) dog escaped.

16. *wanwan hashitteru.* (4;07)

(The) dog is running.

17. *sorede wankun wa hachi ni oi-kakerareta no.*

(5;05)

And (the) dog was chased by the bees.

3.1.3 The Deer Scene

The verbs used to describe the action of the deer pushing the boy and the dog off the cliff mainly were variations of *ochiru* ‘fall’.

18. *okkotta...mizutamari haitteru.* (3;00)

(They) fell...(they) are in (the) puddle.

19. *otoko-no-ko to wanwan wa ike ni okkochatta no.* (5;07)

(The) boy and (the) dog fell into (the) pond.

3.2 Japanese Expressions of Motion:

Adverbial Expressions

Adverbial expressions were also used both by younger and older narrators. Of the two types, non-mimetic manner adverbs were often used by older narrators, as seen in the following:

20. *kaeru wa bin kara shizuka ni tobi-dashite.* (9;00)

(The) frog jumped out of (the) jar quietly.

21. *inu wa hachi ni oi-kakerarete hisshi de nigete-imashita.* (9;07)

(The) dog, chased by (the) bees, was escaping desperately.

22. *inu wa hachi no taigun ni oi-kakerarete isshookenmei nigete-ikimashita.* (adult)

(The) dog, chased by a swarm of bees, went

escaping with all his might.

Mimetic or onomatopoeic adverbials were used by all age groups and were effective in adding descriptive elements to the motion events.

23. *botente koketa.* (4;06)
(The boy) fell with a thud.
24. *hachi ga bunbun tonde-kite* (4;11)
(The) bees came flying buzzing.
25. *shika wa girigiri ni sutoppu shite ochimasendeshita.* (9;09)
(The) deer stopped just in time so (he) didn't fall.

3.3 Japanese Expressions of Motion: Trajectories

According to Slobin (1991), in verb-framed languages such as Spanish and Japanese, trajectories are not highly elaborated, while in satellite-framed languages, trajectories are detailed (e.g., *fell out; carried over a cliff; threw over a cliff into a pond*). Trajectories were few among the younger Japanese narrators, as their sentences were relatively short and simple. The older narrators did add trajectory information, but they usually only added single trajectory information. Postpositions such as *kara* 'from', *ni* 'to' were used.

26. *kodomo to inu wa senaka kara tobi-konde shimaimashita.* (9;00)
(The) child and dog jumped in from (their) backs.
27. *hachi no su kara hachi ga ippai dete-kite* (9;00)
Many bees came out from (the) beehive.
28. *koinu to shoonen wa gake no shita no mizutamari ni ochite-shimatta.* (adult)
(The) dog and boy fell into (the) puddle at (the) bottom of (the) cliff.

In some cases, narrators used a combination of a local noun and postposition to express spatial relations, as in:

29. *sorede fukuroo ga dete-kite ushiro ni taorete.* (9;07)
Then (an) owl came out and (the boy) fell backwards.

In English, trajectories are elaborated, leaving resultant locative states such as end-states to be inferred. Therefore, multiple trajectories are possible, as in: *The bird flew down from out of the hole in the tree*. In general, in the Japanese narratives, there were only a few sentences with multiple trajectory clauses.

30. *kaeru wa mado kara soto e dete shimaimashita.* (9;09)
(The) frog went outside from (the) window.
31. *gake kara otoshite, ike no naka ni hoori konde-shimaimashita.* (adult)
(The deer) dropped (the boy) from (the) cliff and threw him into (the) pond.

3.4 Japanese Expressions of Motion: Static locative configurations

Slobin (1991) described verb-framed languages as being plentiful in static locative configurations, for example, describing the static end-point of a fall. In many narratives such static locative descriptions could be found; in such cases, motion events were inferred. In the following narrative by a five-year-old, the motion of the frog escaping is not described, but inferred.

32. *kaeru wa konnaka ni okiteru no. neteru no- otoko no ko to inu wa.*
(The) frog is awake in here.
Sleeping... (the) boy and (the) dog.

otoko no ko ga koo yatte okite
(The) boy wakes up like this.
kaeru ga inai-tte miteru no
(They) are looking “(The) frog isn’t (here).”

Similarly, in these examples, there is no mention of the frog escaping, but there is static scene setting, in describing the location of the frog in the jar.

33. *kodomo ga okita toki ni wa kaeru ga bin no naka ni imasen deshita.* (07;00)

When (the) boy woke up, (the frog) was not inside the jar.

34. *asa ni natte miru to kaeru o ireta bin no naka ga kara deshita.* (adult)

When it became morning, (the) inside of (the) jar which held (the) frog was empty.

In Ex. 34, the listener can infer the details of the manner in which the dog was chased by the bees from the end-state (i.e., that he is very tired).

35. *inu no hoo mo hachi ni oikakerarete kanari tsukarete iru yoo desu.* (9;09)

(The) dog seems to be very tired, being chased by (the) bees.

As described in Slobin (1991), verb-framed languages like Japanese asserts locations and directions, often leaving trajectories to be inferred. Such scene-setting asserts results, while implying actions.

4. Discussion

Learning a particular language requires a child to pay attention to the distinctions that are regularly encoded by that language. The grammatical and lexical tools provided by each language influence the preferred perspective for that language. In

acquiring a native language, children learn particular ways of *thinking for speaking* which have implications for the development of rhetorical style in each language (Slobin, 1991, 1996a).

Regarding motion expressions in children’s narratives, children acquiring Japanese as a first language learn to use certain tools in certain ways in describing motion events. They master the use of path verbs, while using strategies such as verb complexes and adverbial expressions to add elements of Manner. At the same time, they may narrate stories with less of a focus on trajectories and manner, and more of a focus on scene-setting and static locative configurations. Such tendencies emerge from an early age, as children learn to think in a manner which matches their language.

5. Conclusion

This study focuses on the expression of motion in children and adults creating stories in their first language, Japanese. The results show that overall, the Japanese narrators tended to use Path verbs, as is common in verb-framed languages, instead of Manner verbs, which are common in satellite-framed languages. However, Manner was added in other ways, such as by using verb complexes, and adverbial expressions, including onomatopoeic and mimetic expressions. While trajectories were not highly elaborated, there were many descriptions of static locations, such as those focusing on the static end-point. These findings reflect many of the tendencies reported for expressions of motion in verb-framed languages. Using the tools offered to them by their first language, Japanese, to create stories, even children as young as three demonstrate a rhetorical style which is language-appropriate and reflects *thinking for speaking*.

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Notes

- 1 These narratives were collected as part of an earlier study (Nakamura, 1993).
- 2 Preliminary versions of this study were presented at the International Cognitive Linguistics Conference, in Nishinomiya, Japan in 2019 (Nakamura, 2019) and at the 15th International Congress of the International Association for the Study of Child Language in 2021 (Nakamura, 2021).

References

- Akita, K. (2017). The typology of manner expression: A preliminary look. In I. Ibarretxe-Antuñano (ed.), *Motion and space across languages and applications* (pp. 39-60). John Benjamins.
- Berman, R. A. & Slobin, D. I. (Eds.). (1994). *Relating events in narrative: A crosslinguistic developmental study*. Lawrence Erlbaum Associates.
- Matsumoto, Y. (2017a). Nihongo ni okeru ido-jisho-hyogen no taipu to keiro no hyogen [Types of motion-event expressions and expressions of path in Japanese]. In Y. Matsumoto (Ed.), *Ido-hyogen no ruikeiron* [The typology of motion expressions] (pp. 247-296). Kurosio Publishers.
- Matsumoto, Y. (2017b). Eigo ni okeru ido-jisho-hyogen no taipu to keiro-hyogen. [Types of motion-event expressions and expressions of path in English]. In Y. Matsumoto (Ed.), *Ido-hyogen no ruikeiron* [The typology of motion expressions] (pp. 25-38). Kurosio Publishers.
- Matsumoto, Y. (2018). Motion event descriptions in Japanese from typological perspectives. In T. Kageyama & P. Pardeshi (eds.), *Handbook of Japanese contrastive linguistics* (pp. 273-289). DeGruyter.
- Mayer, M. (1969). *Frog, where are you?* Dial Press.
- Nakamura, K. (1993). Referential structure in Japanese children’s narratives: The acquisition of *wa* and *ga*. In S. Choi (Ed.), *Japanese / Korean Linguistics 3* (pp. 84-99). CSLI Publications.
- Nakamura, K. (2019, August 7). *The expression of motion events in Japanese and English narratives: A developmental approach* [Poster presentation]. International Cognitive Linguistics Conference, Nishinomiya, Japan.
- Nakamura, K. (2021, July 20). *The expression of motion events in English and Japanese narratives: L1 and L2 perspectives* [Poster presentation]. International Association for the Study of Child Language, online conference.
- Nakamura, K. (2022). Motion events in English and Japanese narratives: An analysis of L2 and L2 motion expressions. *Meikai Daigaku Gaikokugogakubu Ronshu*, 34, 47-61.
- Slobin, D. I. (1991). Learning to think for speaking: Native language, cognition, and rhetorical style. *Pragmatics*, 1(1), 7-25.
- Slobin, D. I. (1993). *CHILDES Frogs English Slobin Corpus*. [Data set] CHILDES Corpora. <https://childes.talkbank.org/access/Frogs/English-Slobin.html>
- Slobin, D. I. (1994). The many ways to search for a frog: Linguistic typology and the expression of motion events. In S. Strömqvist & L. Verhoeven (Eds.), *Relating events in narrative, Vol. 2: Typological and contextual perspectives*. Lawrence Erlbaum Associates.
- Slobin, D. I. (1996a). From “thought and language” to “thinking for speaking.” In J. Gumperz & S. Levinson (Eds.), *Rethinking linguistic relativity* (pp. 70-96). Cambridge University Press.
- Slobin, D. I. (1996b). Two ways to travel: Verbs of motion in English and Spanish. In M. Shibatani & S. A. Thompson (Eds.), *Grammatical constructions: Their form and meaning* (pp. 195-220). Clarendon Press.
- Slobin, D. I. (2002). Cognitive and communicative consequences of linguistic diversity. In S. Stromqvist (Ed.), *The diversity of languages and language learning* (pp. 7-23). Lund University, Centre for Languages and Literature.
- Slobin, D. I. (2004). The many ways to search for a frog: Linguistic typology and the expression of motion events. In S. Strömqvist & L. Verhoeven

- (Eds.), *Relating events in narrative, Vol. 2: Typological and contextual perspectives*. Lawrence Erlbaum Associates.
- Talmy, L. (1985). Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen (Ed.). *Language typology and syntactic description iii: Grammatical categories and the lexicon* (pp. 36-149). Cambridge University Press.
- Talmy, L. (1991). Path to realization: A typology of event conflation. *Proceedings of the Seventeenth Annual Meeting of the Berkeley Linguistics Society*, 17(1), pp. 480-519. <https://doi.org/10.3765/bls.v17i0.1620>
- Talmy, L. (2000). *Toward a cognitive semantics: Vol. 2. Typology and process in concept structuring*. MIT Press.
- Toratani, K. (2012). The role of sound-symbolic forms in motion event descriptions: The case of Japanese. *Review of Cognitive Linguistics*, 10, 90-132.

