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On the Lexical Nature of Purposive and Participial Complex Motion Predicates in Japanese

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0. Introduction
This paper examines the nature of what I call the purposive and participial complex motion predicates. First, consider the sentence (1a).

(1) a Taro wa hon o Kanda ni kai ni itta.
   Taro TOP book ACC Kanda GOAL buy PURP went
   "Taro went to Kanda to buy a book."

   b Taro wa [PRO hon o kai ni] Kanda ni itta.
   Taro TOP [ book ACC buy PUR ] Kanda GOAL went
   "Taro went to Kanda to buy a book."

In (1a), the verb of motion itta 'went' occurs adjacent to another verb kai 'buy' with the purposive marker ni. This sentence is superficially similar to a sentence with an independent purpose clause, such as (1b), which is roughly synonymous with (1a). As Miyagawa (1987) claims, however, (1a) exhibits some phenomena that suggest mono-clausality. That is, the complex kai ni itta 'went to buy' in (1a) functions as one predicate in this sentence. I will call this type of predicate the purposive complex motion predicate.

(2a) is an example of another similar complex predicate that I call the participial complex motion predicate.

(2) a Taro wa sono hon o gakkoo ni motte itta.
   Taro TOP the book ACC school GOAL have went
   "Taro brought the book to the school."

   b Taro wa [PRO sono hon o motte] gakkoo ni itta.
   Taro TOP the book ACC have school GOAL went
   "Taking a book with him, Taro went to school."

In (2a) the -te-marked participial verb motte 'have', or more accurately 'come to have', appears adjacent to the main verb itta 'went'. The participial verb typically expresses the action or state of the moving object during its motion. This sentence is superficially similar to (2b), which involves an independent participial adverbial clause. However, as I will show later, (2a) exhibits the same kinds of mono-clausal properties that (1a) does, and therefore can be regarded as mono-clausal.2

The purpose of this paper is to discuss the lexical nature of these complex predicates. In doing so, I will also examine Miyagawa's (1987) restructuring account of purposive complex motion predicates, which I will show can also apply to participial complex predicates. I will show that the restructuring account
overgenerates many ungrammatical sentences, and further that the semantic and functional properties of these predicates suggest that they are more appropriately generated in the lexicon.

1. Evidence for mono-clausality and the restructuring account

1.1. Purposive complex motion predicates

Those facts that Miyagawa provides to argue for the mono-clausality of sentences like (1a) can be summarized in the following way. The first piece of evidence comes from scrambling. In Japanese an adverbial clause is an island with respect to scrambling, and elements in an adverbial clause cannot scramble with elements of a matrix clause (Saito 1985). (3b) shows that the phrases belonging to the embedded adverbial clause cannot scramble with the phrases from the main clause. All the NPs and PP's in (3a), on the other hand, can be freely scrambled, showing that they are all in the same clause.3

(3a) Taro wa hon o Kanda ni jitensha de kai ni itta.
Taro TOP book ACC Kanda GOAL bicycle INST buy PUR went
"Taro went to Kanda to buy a book by bicycle."

b *Taro wa hon o Kanda ni [ PRO kai ni ] jitensha de itta.
Taro TOP book ACC Kanda GOAL buy PUR bicycle INST went

The second piece of evidence comes from the distribution of the Japanese particle *shika* that can be placed on various phrases. This particle occurs with a negative morpheme on the verb and gives the meaning of 'only' to the phrase it attaches to, like French *que*. The negative morpheme must occur in the same clause as the phrase with *shika* (Oyakawa 1975). Thus, (4b) is ungrammatical. However, (4a) is grammatical, showing that the sentence is mono-clausal.

(4a) Taro wa Kanda ni sono hon shika kai ni ikanakatta.
Taro TOP Kanda GOAL the book buy PUR go-NEG-PAST
"Taro went to Kanda to buy the book only."

b *Taro wa [PRO sono hon shika kai ni ] Kanda ni ikanakatta.
Taro TOP the book buy PUR Kanda GOAL go-NEG-PAST

The third piece of evidence comes from the case marking of the object NP of some stative predicates. In Japanese, when a verb is suffixed with certain morphemes that make the verb stative, the object of the verb is marked in the nominative. For example, the object of the verb *yomu* 'read' is normally marked in the accusative, but when the verb is suffixed by the potential *-rare* or the desiderative *-tai*, it can be marked in the nominative. (5a) shows that when *-tai* is suffixed to *iku* 'go' in a sentence like (1a), the NP *hon* 'book' can be marked in the nominative.
This shows that the complex kai ni iku 'go to buy' is one predicate. In a bi-clausal sentence like (5b), on the other hand, this is not possible.

Miyagawa (1987) uses these phenomena to argue for the existence of a syntactic restructuring rule in Japanese. Such a rule, he claims, converts a bi-clausal structure like (1b) into a mono-clausal structure like (1a) in the way described in (6). He claims that this rule applies in the mapping from D-structure to S-structure.

1.2. Participial motion predicates

Participial complex motion predicates also exhibit the same phenomena. First, the NPs and PPs in (2a) scramble freely with respect to each other. Second, the particle shika can be placed on an NP associated with the participial verb with the negative morpheme on iku 'go', as shown in (7a). (7b) shows that this is not possible with its bi-clausal counterpart.

Third, when the desiderative morpheme -rai is suffixed to the verb iku 'go', the object of the participial verb can be nominative-marked, as shown in (8).
Thus, sentences like (2a) are also mono-clausal. Given the structural identity of (1a) and (2a) and also (1b) and (2b), it is natural to assume that the rule that generates (1a) also generates (2a). Therefore, one might derive sentences like (2a) also by restructuring.

The use of a restructuring rule, however, is an undesirable solution in GB, since it produces structures that violate the requirements of the Projection Principle. Therefore, the use of such a rule must be carefully evaluated. In this regard, it is not entirely clear why the use of such a rule is preferred over base-generation of a mono-clausal structure, to account for the complex predicates under discussion. No evidence has been presented as to why sentences like (1a) must be analyzed as bi-clausal at D-structure, although there is evidence for analyzing them as mono-clausal at least at S-structure.

2. Constraints on possible argument structures

In fact, a close examination of purposive and participial complex motion predicates suggests that the structural restructuring account encounters serious problems. The first problem is overgeneration. First, consider (9a) and (9b).

(9) a  Taro wa [hana ni mizu o yari ni ] beranda ni itta.
     Taro TOP flower DAT water ACC give PUR balcony GOAL went
     "Taro went to the balcony to give water to the flowers."

b  *Taro wa hana ni mizu o beranda ni yari ni itta.
   Taro TOP flower DAT water ACC balcony GOAL give PUR went

c  Taro wa hana ni shika mizu o yari ni ikanakatta.
   Taro TOP flower DAT water ACC give PUR go-NEG-PAST
   "Taro went (out) to give water only to the flowers."

The restructuring account would produce sentences like (9b) on the basis of (9a). However, the sentence is unacceptable.

The reason for the unacceptability seems to be the violation of a constraint on possible argument structure of a predicate. In (9b), the complex predicate would have goal and recipient as its arguments. However, this is not allowed as the argument structure of a verb, at least in Japanese. That is, one can state (10) as a constraint on the form of argument structure of a verb, which also constrains the complex predicate that we are discussing.

(10)  V *<.. recipient, goal ..>

One piece of support for this analysis comes from the acceptability of (9c). In this case, the goal argument of iku 'go' is not expressed, due to the process that some call unspecified argument deletion. With the goal argument deleted from the
list of arguments, the complex predicate can have a recipient argument without violating (10).

Similarly, the ungrammatical (11b) would be produced on the basis of (11a) by restructuring.

(11a) Marii wa [PRO sono hon o migi-ude ni kakaete] gakkoo ni itta.
     Mary TOP the book ACC right-arm LOC hold school to went
     "Mary went to school, holding the book in her right arm."

b * Marii wa sono hon o migi-ude ni gakkoo ni kakaete itta.
     Mary TOP the book ACC right-arm LOC school to hold went

(11b) can be ruled out because of another restriction on possible argument structures. (11b) would have a predicate that has a location and a goal as its arguments. Such a verb does not exist at least in Japanese, and therefore one can say that Japanese has (12) as a constraint on argument structure of a predicate, which (11b) violates.

(12) V *<... location, goal...>

Similarly, sentences like (13b) are ruled out because of (14).

(13a) Taro wa [PRO kozutsumi o Kobe made okuri ni] yuubinkyoku ni itta.
     Taro TOP parcel ACC Kobe to send PUR post-office to went
     "Taro went to the post office to send his parcel to Kobe."

b *Taro wa kozutsumi o Kobe made yuubinkyoku ni okuri ni itta.
     Taro TOP parcel ACC Kobe to post-office to send PUR went

(14) V *<...goal, goal...>

These constraints on argument structure may well be a part of (a) more general condition(s) on argument structure (cf: Goldberg 1991). In any case, what is clear is that the complex motion predicates are sensitive to the same constraints placed on lexical items.

3. Other "lexical" properties of complex motion predicates

The above problem of overgeneration might be solved by some revision of the restructuring account. One might say that the restructuring of constituent structure is somehow accompanied by the restructuring of the argument structure of a verb, and this process is constrained by the general conditions on argument structure that apply both in the lexicon and syntax. However, these complex predicates exhibit further lexical properties that cannot be explained by structural restructuring and argument restructuring. These complex predicates essentially have full semantic and functional properties of lexical items.
3.1. Semantic properties
3.1.1. Semantic differences

The complex predicates under discussion exhibit semantic properties of lexical items. Earlier, I said that these complex predicates are roughly synonymous with their bi-clausal counterparts. However, there are many kinds of subtle differences in meaning. Consider the following two sentences.

(15a) Taro wa suutsu o Meeshiiizu to Enporiamu ni kai ni itta.  
Taro TOP suit ACC Macy's and Emporium GOAL buy PUR went  
"Taro went to Macy's and Emporium to buy a suit there."

b Taro wa [ PRO suutsu o kai ] Meeshiiizu to Enporiamu ni itta.  
Taro TOP suit ACC buy PUR Macy's and Emporium GOAL went  
"Taro went to Macy's and Emporium so that he could buy a suit."

The difference is this. (15a) entails that both Macy's and Emporium are Taro's intended locations of buying a suit, whereas (15b) simply means that Taro's trip to Macy's and Emporium was made with the intention of buying a suit. Therefore (15b) is acceptable, for example, when Taro intended buy a suit at one of the two stores, going to the other just to compare prices. (15a), on the other hand, is not acceptable in such a case, but suggests that Taro had an intention to buy a suit at both stores (i.e. he wanted to buy two different suits). Thus, the goal argument of a complex predicate must be the intended location at which the action described in the purposive verb is performed.

The goal argument of the complex predicate must also be the location where the intended action is performed immediately after the termination of motion. Consider (16a) and (16b).

(16a) Taro wa [ PRO ichigatsu kara hajimaru myuuji karu o mi ni ]  
Taro TOP January from begin musical ACC watch PUR  
kurisumasu-kibun de ippai no Nyuuyooku ni itta.  
Christmas-feeling with full GEN New York GOAL went.  
"Taro went to a New York filled with Christmas atmosphere, in order to see a musical that was to begin in January."

b. Taro wa ichigatsu kara hajimar u myuuji karu o  
Taro TOP January from begin musical ACC  
kurisumasu-kibun de ippai no Nyuuyooku ni mi ni itta.  
Christmas-feeling with full GEN New York GOAL watch PUR went.  
"Taro went to a New York filled with Christmas atmosphere to see a musical that was to begin in January (right after arrival)."

(16a) is true when Taro went to New York to stay over there till January, when he intended to see a musical. (16b), on the other hand, is not true under such
circumstances; it entails that Taro intended to see a musical right after getting to New York, and therefore it implies that Taro went to New York during the Christmas season by mistake.

These two observations about the purposive complex predicates suggest that these complex predicates denote such motion that the intention described by the purposive verb accompanies all stages of the motion, and the intention is accomplished with the ending of the motion. In this sense, the motion of the subject NP and its intention must be more closely related in the meaning of a complex predicate than in the corresponding bi-clausal structure.

Similarly, observe the following difference with respect to participial complex predicates.

(17a) Taro wa sono suutsukeesu o kooban ni motte itta.
    Taro TOP the suitcase ACC police-station GOAL have went
    "Taro brought the suitcase to the police station."

b Taro wa [ PRO sono suutsukeesu o motte ] kooban ni itta.
    Taro TOP the suitcase ACC have police-station GOAL went
    "Taking the suitcase with him, Taro went to the police station."

(17b) is true even when Taro just happened to take a suitcase with him when going to a police station, while (17a) is acceptable only when Taro intentionally took a suitcase with him in going to the police station. Thus, the motion of the subject NP and the action or state accompanying it must also be more closely related in the meaning of a participial complex motion predicate than in the corresponding bi-clausal structure.

This kind of difference can be attributed to the general difference between lexical and phrasal expressions. As has been pointed out in regard to the difference between the verb *kill* and the phrase *cause to die*, different aspects of the event described by one lexical item must be closely related to each other spatially and temporally, in order to be packaged into the meaning of a lexical item (e.g. Wierzbicka 1972, Chap 5).

This point can be further illustrated by the possible semantic relations that a participle can mark in a bi-clausal structure and in a complex predicate. In the case of participial complex motion predicates, participles can mark only three kinds of semantic relations with respect to the main verb. They are what I call resultative, progressive and perfective, which are illustrated in (18).⁴

(18a) Taro wa sono hon shika gakkoo ni motte ikanakatta.
    Taro TOP the book school GOAL have go-NEG-PAST
    "Taro brought only the book to school."

b Taro wa sono otoko shika kooen made otte ikanakatta.
    Taro TOP the man park to chase go-NEG-PAST
    "Taro chased only the man to the park."
Taro wa sono hon shika nusunde ikanakatta.
Taro TOP the book steal go-NEG-PAST
"Taro stole only the book and went away."
(i.e. Taro left with only the book.)

The resultative reading involves verbs that denote a change of state of the subject NP, such as motsu in (18a), which is an inchoative verb meaning 'come to have'. In this case, the complex predicate denotes that the resulting state of the change holds during the motion of the subject NP. The progressive reading involves verbs that denote some activity that can accompany the motion of the subject NP, such as ou 'chase' in (18b). In this case, the complex predicate denotes that the activity described by the participle accompanies the motion of the subject NP. The perfective reading involves verbs that denote any activity that does not entail any change of state of the subject NP, such as nusumu 'steal'. In this case, the complex predicate denotes that the activity has finished just before the motion of the subject NP begins. As I will show shortly, such an activity must be interpreted as affecting the motion of the subject NP.

Participial adverbial clauses can mark some other meanings. For example, they can mark reasons, as in (19a).

(19) Taro wa [ PRO sono shinbun-kiji o yonde ] (koko ni) kita.
Taro TOP the newspaper-article ACC read here GOAL came
"Taro read the newspaper article and (that's why he) came."

b. Taro wa sono shinbun-kiji shika yonde konakatta.
Taro TOP the newspaper-article read come-NEG-PAST
"Taro came here, having read only the newspaper article."
("He read only the newspaper article to come here.")

Such a reading is not possible with the corresponding complex predicate in (19b). The closest reading is the perfective reading, which requires a closer relationship between the two events described by the participle and the main verb. (19b) is used only when reading a newspaper article was some sort of prerequisite for coming (e.g. it was part of a homework assignment for class).

3.1.2. Idiosyncrasies

Furthermore, some complex motion predicates have acquired idiosyncratic meanings. Some examples are given in (20).

(20) asobi ni iku 'go to play' > 'drop in (at someone's house)'
     tonde iku 'go flying' > 'hurry'
     megutte kuru 'come travelling around' > '(e.g. a fortune) come (to someone)'
     tsuite iku 'go sticking to (something), follow' > 'keep pace with'
     motte iku 'go having, bring' > 'steer (the course of an event)
                 (to some stage)'

Such an idiosyncratic meaning is not available in the corresponding bi-clausal
structure. This phenomenon is typical of lexical items, and these meanings must be listed in the lexicon.

3.2. **Functional properties**

The complex predicates under discussion also exhibit functional properties of lexical verbs (properties related to grammatical functions such as subject, object and adjunct).

3.2.1. **Passivization**

Perhaps the most convincing evidence against the restructuring account is the passivizability of these predicates. In (21a), for example, the complex predicate *motte iku* 'go having' or 'bring' is passivized. (21b) is an example in which the complex predicate *tori ni kuru* 'come to take' is passivized.

(21a)  sono hon ga motte ik-are-ta (koto).
  the book NOM have go-PASS-PAST
  "(the fact that) the book was taken away."

b  kono hon ga mada dare ni mo tori ni kor-arete inai (koto)
  this book NOM yet anybody by even take PUR come-PASS ASP-NEG
  "(the fact that) this book has not been claimed."

If one assumes a lexicalist theory in which all function changing processes take place in the lexicon, these complex predicates must be generated in the lexicon.

3.2.2. **Adjunct interpretation**

The final observation comes from adjunct interpretation. First, consider (22).

(22a)  Taro wa [PRO yukkuri hon o yomi ni] isoide toshokin made itta.
  Taro TOP slowly book ACC read PUR hurriedly library to went
  "Taro hurriedly went to the library to read a book leisurely."

b  #Taro wa yukkuri hon o isoide toshokan made yomi ni itta.
  Taro TOP slowly book ACC hurriedly library to read PUR went

The restructuring rule would generate (22b) from a structure like (22a). However, while (22a) is a meaningful sentence, (22b) is not. This means that the complex predicate behaves like a simple lexical item with respect to the interpretation of adverbs. That is, two adverbs of the same type cannot modify different components of the verb.

(23) further shows that an adjunct PP interpretation treats a complex motion predicate as a lexical item. While (23a) is ambiguous between the two readings (*Marii to iisho ni* 'with Mary' modifying the purposive verb, or the verb of motion), (23b) is unambiguous, with the reading of Mary sharing Taro's intention to borrow a book as well as accompanying him to the library.
(23a) Taro wa Marii to issho ni sono hon o toshokan made kari ni itta.
Taro TOP Mary with the book ACC library to borrow PUR went
"Taro went to the library to borrow the book with Mary."

b Taro wa [ Marii to issho ni [ hon o kari ni ] ] toshokan made itta.
Taro TOP Mary with book ACC borrow PUR library to went
"Taro went to the library to borrow a book with Mary." (ambiguous)

In this respect, these complex predicates are different from Japanese morphological causatives. In contrast to (23a), (24) is ambiguous.

(24) Taro wa Biru ni Marii to issho ni sushi o tabe-sase-ta.
Taro TOP Bill DAT Mary with sushi ACC eat-CAUS-PAST
"Taro forced Bill to eat sushi with Mary." (ambiguous)

In this sentence, Mary can be either a companion of Taro's forceful action, or of Bill's experience. Evidence like this has been used to support a bi-clausal structure for morphological causatives at some abstract level of representation, though they are mono-clausal in the surface constituent structure. The difference between (23a) and (24) shows that one cannot say that (23a) is bi-clausal in the same way (24) is.

3.3. Summary of Section 3.
All of the observations above suggest that the purposive and participial complex motion predicates have the functional and semantic properties of lexical items. One might save the restructuring account by adding various conditions on restructuring. This would put various subtle semantic conditions on syntax, but these are exactly the kind of conditions that the theory in which the restructuring account is proposed has tried to eliminate from syntax. Furthermore, such conditions cannot explain idiosyncrasies and passivization facts. Given that no evidence has been presented that forces us to assume a bi-clausal D-structure, it is better to say that sentences like (1a) and (2a) are base-generated as mono-clausal.

4. Categorial status of the complex predicates
There is, however, a problem with calling the complex predicates under discussion lexical items. In spite of their semantic and functional similarities to lexical items, the complex predicates do not have the categorial status of lexical items, for they do not satisfy various tests for the categorial lexical status proposed in Poser (in press) and Matsumoto (1990). For example, the complex predicates do not undergo so-called Renyooeki Nominalization. Also, various emphatic and focusing particles like wa and nanka can intervene between the two verbs composing a complex predicate as shown in (25).

(25a) Taro wa sono hon o Kanda made kai ni wa itta ga, ....
Taro TOP the book ACC Kanda to buy PUR FOC went though
"Although Taro did go to Kanda to buy a book, ...."
b Taro wa sono hon o gakkoo made motte wa itta ga, ....
Taro TOP the book ACC school to have FOC went though
"Although Taro did bring the book to school, ...."

Interestingly, such a particle can intervene even when passivization has applied, as in (26).

(26) Sono kodomo wa gakkoo made tsurete wa ik-are-ta ga, ....
the child TOP school to take FOC go-PASS-PAST though
"Although the child was brought to school, ...."

This mismatch between functional and semantic status versus categorial status is not limited to complex motion predicates. Poser (in press) claims that so-called incorporated suru verbs in Japanese, such as benkyoo suru (study do) 'study', are in fact two lexical items categorially, although they function as one predicate functionally.

Thus, the lexicon needs to contain this kind of non-lexical small phrase anyway, and therefore there is no reason to assume that the complex predicates that have been examined here are not generated in the lexicon in a similar way.

5. Concluding remarks
In this paper, I pointed out that the purposive and participial complex motion predicates exhibit semantic and functional properties of lexical items as well as properties related to their argument structures, although they are not lexical items categorially. These phenomena suggest that base-generation is a better solution than restructuring, providing a caution against the use of such rules in general.

In the theory of Lexical Functional Grammar, the above observations can be captured by saying that these complex predicates correspond to two terminal nodes in a mono-clausal constituent structure and to one slot in the mono-clausal functional and argument structures (cf: Butt, Isoda & Sells ms). A more explicit account, however, must be left for another occasion.

Notes
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2 This is not the only kind of the complex predicate composed of a participial verb and a verb of motion. In (i) below, kuru 'come' is used to refer to the abstract motion of the effects produced by Taro's action. In (ii), it marks the gradual progress of a change. See Yoshikawa (1976) for some facts about these cases.

(i) Taro wa soko ni hu o utte kita.
Taro TOP there LOC pawn ACC put came
"Taro placed a pawn there (with some effect to the other person)."
(ii) Sora ga kuraku natte kita.
    sky NOM dark become came
    "It is getting dark."

3 Note that some sentences, such as (i) below, can be ambiguously assigned both a mono-clausal structure and a bi-clausal structure.

(i) Taro wa Kanda ni hon o kai ni itta.
    Taro TOP Kanda GOAL book ACC buy PUR went
    "Taro went to Kanda to buy a book."

In this sentence the object of the verb kai appears adjacent to it, and therefore this sentence can be interpreted as a bi-clausal structure like (1b) with a purposive clause (PRO hon o kai ni), or a mono-clausal structure like (1a) in which the three phrases Taro wa, Kanda ni, and hon o happen to have scrambled in this order. I will not use this kind of sentence in the following discussions.

4 These three readings are essentially the same as the meanings that -te can mark when it occurs with the aspectual verb iru.

References


