

Primacy of Aspect in the Acquisition of Japanese

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Abstract

It has been consistently observed in first language acquisition research that children's initial use of tense/aspect morphology redundantly marks inherent lexical aspect of verbs rather than tense or grammatical aspect (Primacy of Aspect, POA). Although this phenomenon has been reported in the literature on children acquiring a variety of languages, there have been very few studies on children learning Japanese, which has a very different system of tense/aspect marking compared with other languages that have been studied so far. Therefore, reviewing the previous studies on the acquisition of Japanese tense/aspect marking, TA and TEIRU, the present paper discusses the shortcomings of those studies and makes some suggestions for future study.

0. Introduction

There have been a mass of studies on first language acquisition reporting a strong association between the inherent aspectual meanings of the verb and the choice of verb inflection in children's initial speech (Antinucci and Miller 1976, Bronckart and Sinclair 1973, Bloom et al 1980). These studies show that, for instance, children mark past inflection conspicuously on event verbs and imperfect or progressive inflection on verbs with durative meaning. This phenomenon--referred to as Primacy of Aspect (POA)--is interpreted as a sign that language learners initially use verb inflections to mark aspectual meanings, even if the inflection is used as deictic tense marker in adult language (e.g. -ed in English).

Although this phenomenon has been reported in children acquiring a variety of languages, very few studies focused on children learning Japanese. Since Japanese has a very different organization of tense/aspect marking compared with the other languages which have been studied so far, the findings in Japanese will be a valid indicator of the universality of this suggested phenomenon.

Therefore, the purpose of the present paper is to examine the previous studies on the acquisition of Japanese tense and aspect inflections, TA and TEIRU, in the light of POA hypothesis in first language acquisition. After presenting a rough sketch of the Japanese tense/aspect marking system, studies that investigated the relationship between the inherent aspect of the verb and children's choice of verb inflection will be summarized. Furthermore, the major problems in those studies will be discussed, and better approach to this area of study in Japanese will be suggested.

Although Japanese is rich in inflections to mark tense and aspectual distinctions, this study will focus on past/perfective marker TA and continuative marker TEIRU. This is because they are the closest equivalents to the inflections that have been examined in the studies on the acquisition of tense and aspect. Another reason is that they are one of the first inflections to appear in child's language (Clancy 1985), which means that they bare the most basic functions that children hear and use.

1. Tense/aspect marking in Japanese: TA & TEIRU

1.1 Past/Perfective Marker TA

There are three positions concerning the interpretation of this verb inflection. The traditional view has been that of tense (Okuda 1985, Takahashi 1985), but recent studies argue that the core meaning of TA is aspectual, and the tensal meaning arises from pragmatic context (Kunihiro 1982). Still another perspective is to allow both aspectual and tensal meaning in the inflection (Kamiya 1989, Teramura 1985). Thus, researchers have not reached an agreement on whether TA is a tense marker or an aspect marker. Since the purpose of this paper is not to argue for any of the positions on this issue, I will refer to TA as 'past/perfective marker'. In order to give a rough sketch of the tense/aspect system in Japanese, I will summarize Teramura's analysis below.

Teramura (1985) argues that whether TA takes aspectual meaning or tensal meaning can be clearly determined by the context. There are three cases in which the contrast of non-past marker RU and TA denotes tensal distinction: 1) referring to present/past habitual, 2) referring to definite future/fact about the past, and 3) describing perception and subjective statements. The following examples indicate that TA is a tense marker when it is used to describe past habitual.

1.a *Haha wa mainichi sooji wo su-ru.*

my mother TP everyday clean -RU

"My mother cleans (the rooms) every day."

1.b *Kaeru to itsumo hirune wo su-ru.*

when I return home (I) always a nap AC take-RU

“When I return home, I always take a nap.”

2.a *Watashi wa mainichi piano wo renshuushi-ta.*

I TP everyday piano AC practice-TA

“I used to practice the piano every day.”

2.b *Sofu wa yoku skii no hanashi wo shi-ta.*

My grandfather TP often ski GE story AC tell-TA

“My grandfather often told us about skiing.”

(TP=topic marker, AC=accusative marker, GE=genetive marker)

In examples 1.a and 1.b, the habit of taking a nap or cleaning the room is still present, whereas in examples 2.a and 2.b, the subjects do not have the habit any more. Therefore in this case RU/TA is a tense distinction.

The tensal meaning is also observed in the sentences below. In this case, RU is used to denote definite future and TA is used to describe a fact in the past.

3.a *Konban wa hoteru ni tomaru.*

Tonight TP hotel LO stay-RU

“Tonight (I) will stay at a hotel.”

3.b *Shichoo wa kaigi ni okure-ru*

The mayor TP meeting LO come late-RU

“The mayor will be late for the meeting.”

4.a *Kinoo ano hoteru ni toma-tta.*

Yesterday that hotel LO stay-TA

“Yesterday (I) stayed at that hotel.”

4.b *Shichoo wa kaigi ni okureteki-ta.*

The mayor TP meeting LO come late-TA.

“The mayor was late for the meeting.”

(TP=topic marker, LO= locative marker)

TA in sentences like 4.a and 4.b cannot be interpreted as an aspectual marker because it describes the fact that can be reduced to a point in the past.

The third case is when we refer to perception or subjective states. This notion is typically expressed by the form ‘noun -GASURU’.

5.a *Kaze no oto ga su-RU.*

wind GE sound TP can be heard-RU

“(I) can hear the sound of the wind.”

5.b *Henna aji ga su-RU.*

Weird taste TP can be tasted-RU.

“(This) tastes weird.”

(TP=topic marker, GE=genetive marker)

When we replace RU with TA in this context, TA is tensal because it denotes that subject’s perceiving something occurred before speech time.

6.a *Kaze no oto ga shi-ta.*

wind GE sound TP can be heard-TA

“(I) heard the sound of the wind.”

6.b *Henna aji ga shi-ta.*

Weird taste TP can be tasted-TA

“(This) tasted weird.”

(TP=topic marker, GE=genetive marker)

RU/TA in the following sentences show an aspectual distinction: RU functioning as imperfect marker and TA as perfective marker.

7.a *Konoko wa segataku na-ru.*

This child TP tall become-RU.

“This child will become tall.”

7.b *Shichoo wa mamonaku toochaku shimas-u*

The mayor TP soon arrive -(R)U

“The mayor will arrive soon.”

8.a *Konoko wa segataku na-tta.*

This child TP tall become-TA.

“This child has become tall.”

8.b *Shichoo wa moo toochaku shi-ta.*

The mayor TP already arrive -TA

“The mayor has arrived.”

(TP=topic marker)

TA in the examples 8.a and 8.b are different from those that appeared in the former examples. TAs in the sentences above point to the present situation or focuses on the fact that an event has been realized. This is evidently different from the notion of tense.

Thus, according to this analysis, RU/TA contrast can serve as both past/non-past marker and imperfective/perfective marker, depending on the context under which they are used.

1.2 Continuative Marker TEIRU

TEIRU is a combination of TE, which marks the continuative form of the verb, I, the stem form of ‘be’ and RU, a non-past marker (therefore TA in *tei*-TA is a past marker). The general meaning of this inflection is “that the effect of process still exists”. Thus it adds continuative sense to the verb stem. This complex aspect marker has two core meanings, progressive and resultative (or resultative state), and this distinction is determined by the inherent meaning of the verb with which it is combined (Teramura 1985). TEIRU functions like a progressive marker when it is attached to durative verbs and transitive achievement verbs (in this case iterative), whereas it denotes a resultative state caused by the effect of the action when it follows intransitive achievement verbs. See the examples below:

9.a *Akachan ga nai-teiru.*

the baby TP cry-TEIRU.

“The baby is crying.”

9.b *Chichi wa ima shinbun wo yon-deiru.*

my father TP now newspaper AC read-TEIRU

“My father is reading the newspaper now.”

10.a *Kingyo ga shin-deiru.*

the goldfish TP die-TEIRU

“The goldfish is dead.”

10.b *Denki ga tsui-teiru*

the light TP turn on-TEIRU

“The light is on.”

(TP=topic marker)

TEIRU in 9.a and 9.b give continuative sense to the verb that describes durative action, therefore the combination results in a progressive meaning. On the other hand, TEIRU in 10.a and 10.b assigns continuative meaning to the result that the punctual event or effect, thus the TEIRU form refers to the resultative state.

Thus, it is clear that neither TA nor TEIRU is identical to the equivalent forms in languages such as English. In fact, no tense/aspect markers have identical functions across languages, and this is a significant point in this paper. I will come back to this when I discuss the previous studies on the association between aspectual meaning of the verb and the choice of inflection, to which I will turn now.

2. Previous Studies

2.1 Cziko and Koda (1987)

This study was motivated by Bickerton’s Language Bioprogram Hypothesis (LBH), part of which claims that state-process and punctual/non-punctual distinctions of verbs are universals of language acquisition (Bickerton 1984). Bickerton assumes that there are certain universals of

language acquisition that all human beings are born with. He bases this argument on the observation that all Creole languages, which have developed without adequate modeling of a language and in geographically diverse areas, share certain syntactic and semantic features in common. He claims that if this is the case, these bioprogram universals should also be true to non-Creole languages. Two of the major universals proposed are state/process distinction and punctual/non-punctual distinction of verbs. Punctuality is determined by the length of duration of the process denoted by the verb, and stativity refers to involuntary process. The examples of stative verbs are those which describe perception, emotion and desire (e.g., hear, see, want, angry).

Cziko and Koda draw on Noji's (1976) longitudinal data of his child, Sumihare, acquiring Japanese as a first language from birth to the age of seven. This is a written record of the child's utterances as well as the information on the extralinguistic context of those utterances. For their study, Cziko and Koda randomly sampled 113 pages from the volumes, which contains Sumihare's speech from the ages of 1;0 to 4;11. They investigated the use of state/process verbs and punctual/non-punctual verbs by the child to find out whether or not the acquisition pattern of verbs by a Japanese child provide any supportive evidence for Bickerton's hypotheses. The results will be summarized below.

2.1.1 State/Process Distinction

In their study, 'present progressive markers' in Japanese included the following three types: 1) TEIRU, which describes actions neutral to direction; 2) TEIKU, which describes actions in the direction away from the speaker; and 3) TEKURU, which describes actions in the direction of the speaker. As for the verbs, they were classified into three categories: 1) pure stative verb, 2) pure process verb, and 3) mixed stative-process verb. This third type is defined as follows: "...which appear to be stative in meaning but which act syntactically as process verbs" (p.105). Examples of these verbs are: *shiru* ('to know'), *sumu* ('to live'), and *aisuru* ('to love'). According to their analysis, these stative verbs require TEIRU, a progressive marker, to encode the current state; and simple present form of those verbs has either habitual or futurate meaning. Based on these classifications, Cziko and Koda hypothesized that 1) the child would not overgeneralize the present progressive form to pure stative verbs, and 2) the child would refrain from attaching TEIRU to mixed stative verbs, if the state/process distinction is in fact innate in the child. They claim that if the second hypothesis is also supported by the results, it will be convincing evidence for Bickerton's hypothesis, because it will prove that the inherent meaning of the verb--stativity--is governing the choice of inflection form, not the syntactic feature. Table 1 below summarizes the results.

Table 1. The classification of the sampled verbs and the number of verbs with progressive marker (adapted from Cziko and Koda 1987, p.106)

verb type	number of instances	number of inflected verbs out of required context
pure process verbs	281 (92.7%)	32 / 33
pure stative verbs	17 (5.6%)	0 / 0
mixed stative/process verbs	5 (1.7%)	0 / 1
TOTAL	303	32 / 34

Among the total samples of 303 non-compound verbs produced by Sumihare during the ages of 1;3 to 4;11, progressive markers were never used with either pure stative or mixed stative/process verbs, which is consistent with their prediction. They also report that Sumihare's use of progressive form in required context was almost perfect, except for two cases, one of which was the failure to use TEIRU with a mixed verb.

Since the result above was drawn from the sampled data in which the use of TEIRU was obligatory for only one mixed verb, Cziko and Koda further analyzed all the instances of mixed verbs that appeared in the entire corpus (from birth to 3;0). They found that the TEIRU form was actually used with mixed verbs: 49 (47%) of the 105 mixed verbs were inflected with TEIRU. Moreover, his accuracy of its use with mixed verbs was 88%: He marked TEIRU with 44 mixed verbs out of 50 obligatory use. This appears to go against their hypothesis; however, Cziko and Koda argue that the 6 uninflected mixed verbs appeared in the earliest 2 months in which mixed verbs were found. Among the 19 mixed verbs Sumihare produced at ages 1;11, 2;1 and 2;2 under obligatory context, 7 of them (37%) were not used with TEIRU. In addition, they further support their claim by contrasting this result with Sumihare's performance on pure process verbs, which showed that he was almost perfect in providing TEIRU when required. Thus, they conclude that in the early stages of acquisition, a Japanese child's use of TEIRU form is limited to semantically 'process' verbs.

2.1.2 Punctual/Non-punctual Distinction

This hypothesis was not supported by Sumihare's speech. The prediction was that past marker TA will co-occur with punctual verbs more frequently than with non-punctual verbs. The result of their analysis was that the frequency of punctual verbs with TA form was identical to that of non-punctual verbs (59 versus 59). Even his use of TA form in the early stages did not show any association with the inherent punctuality of the verb stem. They also examined if TA was

associated with the present change of state brought about by a past action, which was proved to be the case in Italian children (Antinucci and Miller 1976). However, there was no correlation between the use of TA and verbs which inherently denote endstate. On the contrary, Sumihare's use of TA showed a negative correlation with the verbs with change-of-state meaning: 30 of them were used with no change-of-state verbs and 14 with change- of-state verbs.

2.1.3 Discussion

This study is not without serious deficiencies. One major shortcoming is that the interpretation of continuative marker TEIRU is inaccurate. They consider TEIRU as a progressive marker, which is clearly not the case. As I have mentioned in the previous section of this paper, it covers a more general notion of continuity, and progressive meaning is part of it. There are many cases in which TEIRU does not refer to action in progress: For example, *ai-teiru* ('is open'), *hai- tteiru* ('is inside'), *ki- teiru* ('has arrived' 'is here now'), although the verb stem is inherently punctual. Thus there is no reason to hypothesize that TEIRU will show associations with process verbs.

Since the analysis of the function of TEIRU is inaccurate, the results of the data analysis are unreliable. What they counted as 'process verb + TEIRU' included 'intransitive achievement verb + TEIRU'; in which the TEIRU is a resultative marker. This means that they have grouped progressive marker and resultative marker in one category. Therefore, the figures reported do not accurately reflect the association between the inherent semantics of the verbs and the inflection.

Another point to raise is concerning the interpretation of the mixed stative/process verbs that Sumihare failed to mark TEIRU on. Out of the 7 verbs without TEIRU, 4 of them were combined with TA: *kucha-tta* ('got rotten'), 2 instances of *nure-ta* ('got wet'), and *tsui-ta* ('turned on'). It should be pointed out that these instances may not necessarily be errors because it is appropriate to use both TA and TEIRU in such context. The three verbs are intransitive achievement verbs, and when combined with TA they describe 'enter-into-state', meaning that they imply the sense of resultative state denoted by TEIRU form. For example, *nure-ta* means that something 'got wet', implying that it is now 'wet' (*nure-teiru*). However, there is a difference in the use of TA and TEIRU forms depending on which aspect of the event the speaker wants to refer to. Therefore, without a close look at what Sumihare seems to be referring to when he utters these forms, we cannot decide on the required form. Thus, Cziko and Koda's interpretation of the child's utterances and the context of the language use may not be reliable because they are not the ones who directly gathered the speech samples.

Youssef (1987) conducted a reanalysis of Cziko and Koda, and argues that the 7 mixed verbs without inflection are mere developmental errors, which are also possible to be seen among the

pure process verbs. In simple terms, there certainly is a chance that children will drop TEIRU even in the use of process verbs. He points to the fact that Cziko and Koda failed to examine all the instances of TEIRU used with process verbs; which means that they were not conducting a fair comparison between mixed verbs and process verbs.

In sum, based on their analysis, Cziko and Koda claim that TEIRU is used dominantly with process verbs by children, but TA and punctual verb did not show any correlation. However, concerning their first claim, which is apparently an elegant explanation of state/process distinction, there seems to be problems in several respects. I have concluded that Cziko and Koda's attempt to find evidence for the suggested universals of semantic categorization is far from successful due to drawbacks in both theoretical and practical aspects of the study.

2.2 Rispoli (1981)

This study reports the emergence patterns of tense/aspect markers of verbs and tense markers of adjectives in Japanese child language acquisition. The data source is a tape-recorded speech of a Japanese child between the age of 1;6 to 2;1. As a part of the investigation, Rispoli examines the correspondence between the semantics of the predicates and the tense/aspect markers. The results are summarized in the following.

2.2.1 TA

Specifically, Rispoli reports that 'action verbs' as opposed to 'stative verbs' received TA marking far more frequently than did the stative verbs. Shirai's (1991) reanalysis of Rispoli's data reveals that the child's use of TA was almost restricted to achievement/accomplishment verbs, which is congruent with the prediction of POA hypothesis.

Table 2. Initial use of TA in subject's utterance

use of TA		number of occurrences
<i>ki-ta</i>	'came'	1
<i>ori-ta</i>	'took off'	2
<i>ochi-ta</i>	'fell'	7
<i>to-tta</i>	'took'	1
<i>koron-da</i>	'fell over'	1
<i>koware-ta</i>	'broke'	2
<i>hii-ta</i>	'played (an instrument)'	1

2.2.2 TEIRU

TEIRU in Rispoli's data, however, goes against the prediction of the POA hypothesis: It was used evenly with punctual and durative verbs. This means that the child was actually using TEIRU with both resultative and progressive meaning. Thus, this result does not support the POA hypothesis.

Table 3. Initial use of TEIRU in subject's utterance

verb type	use of TEIRU	
punctual verbs	<i>hikkaka-tteiru</i>	'is hung' 'stuck'
	<i>hai-teiru</i>	'is wearing'
	<i>ta-tteiru</i>	'is standing'
	<i>tsuke-teiru</i>	'is putting on'
activity verbs	<i>ason-deiru</i>	'is playing'
	<i>yure-teiru</i>	'is shaking'
	<i>kai-teiru</i>	'is writing'
	<i>shi-teiru</i>	'is doing'
stative verb	<i>mo-tteiru</i>	'have'

2.2.3 Discussion

Rispoli's data is congruent with Bloom et al's (1980) study, which investigated the POA hypothesis in English-speaking children, focusing on the child's use of the past/perfective marker. However, what he calls 'stative predicates' differs from what Bloom et al (1980) referred to as 'stative verbs'. First, he groups stative verbs and adjectives as one category and calls them stative predications. This is possible in Japanese because TA can be attached to copula *i* for adjectives, turning to *katta* (for example, *taka-i* 'is expensive' and *taka-katta* 'was expensive'); and *da/na* for nominal adjectives, which is realized as *datta* (for example, *shizuka-da* 'is quiet' and *shizuka-datta* 'was quiet'). He groups these two types of predication based on his findings that both stative verbs and adjectives (and nominal adjectives) stayed away from TA marking.

The claim that TA marking for copula is also consistent with the POA is noteworthy. This is a finding unique to Japanese in comparison with English, which employs the same form TA for marking both copula and simple verbs denoting the past. This enables us to study the past marking for copulas and simple verbs in parallel, which is not possible in English and other languages which have different past marking inflection for copulas. (If they take different forms, the emergence cannot be compared since acquisition of inflections is affected by the form, phonological features,

and the position within the sentence it generally occurs in.) The parallel comparison is suggestive because especially in Japanese, TA with adjectives is clearly a tense marker; and if the emergence of past marking of copula is delayed compared with that of TA with simple verbs, it may serve as evidence to some of the POA advocates' claim that the notion of deictic tense is cognitively difficult to acquire. This would be an interesting area of research.

The second difference is that Rispoli defines stative verbs in Japanese using morphological criterion. That is, he named the verb 'stative' if it was not amenable to TEIRU, a continuative marker. The verbs that falls into this category are *iru* (=existence, animate), *aru* (existence, inanimate) and *dekiru* ('be able to'). In contrast, Bloom et al defines 'stative' verb as those which denotes non-movement. For example, 'want', 'know', 'like', 'sleep' and 'see'. The interesting part of this is that in spite of the different ways of categorizing the verbs, the overall result was congruent with each other. Does this indicate that different people with different languages have different notion of stativity? Or, if there should be a universal lexical categorization, what should the classification be based on? These are crucial questions to be considered if we are to conduct crosslinguistic comparison of the study of POA principle.

2.3 Comparison

There was a contradiction in the results of the two studies. Firstly, in Rispoli's study, TA was strongly associated with action verbs, or achievement and accomplishment verbs in Shirai's terms. Cziko and Koda report, however, that TA had no significant relationship between punctuality and the existence of endpoint. Cziko and Koda's result is an especially strong counterexample to the POA hypothesis since there was a negative correlation between punctuality and the use of TA. Considering the fact that the evidence using Rispoli's data was a reanalysis by Shirai, where the contextual information was not available, Cziko and Koda's result should be taken seriously. It may be the case that children perceive TA as a inflection that may express more of a variety of meaning, different from English ED. Evidently, more research is needed.

As for the use of TEIRU, it is clear that children do not extend its use to pure stative verbs such as the verb of existence. However, in Rispoli's data, TEIRU is not restricted to activity verbs, which is not the case in English. More data and a closer look at the children's use of this inflection are needed as well.

3. Discussion

3.1 Problems in Crosslinguistic Studies

The major drawback in Cziko and Koda's study is the fact that they overgeneralized the categories in English tense/aspect system to those of Japanese. As I have mentioned in section 2 of this paper, they referred to TEIRU as progressive marker, assuming that it is the equivalent of English progressive marker ING. Even more problematic is the fact that they used TEIRU as a criterion to classify lexical meanings of verbs, which is totally misleading because TEIRU does not restrict its function to denote action-in-progress meaning. This misleading approach is perhaps due to the fact that the study of semantic categories and inflections originated in European languages such as English and French, and that people tend to analyze an unknown language through bias of the language they know about. This type of overextension is what we must avoid when we conduct equivalent studies in different languages.

One significant issue is the universality of semantic analysis of predicates. Rispoli (1981) insists that lexical classification is language specific; therefore he is skeptical about drawing any crosslinguistic parallels on this issue. The typical example he uses to illustrate his idea is the stative versus dynamic distinction in English and Japanese. He employs Nakau's (1976) framework for his analysis: The distinction in English is determined by whether or not the verb is congruent with progressive, whereas in Japanese, it surfaces as the co-occurrence of a dynamic verb with the continuative marker TEIRU. He claims that a stative predicate in Japanese is not always a stative predicate in English; that is, there is no one-to-one correspondence between the two. He draws the following examples to support his claim: *shiru* ('to know') is an action verb because it can precede continuative marker; whereas the English equivalent 'to know' is a stative verb because it never occurs with a progressive. There are quite a few pairs where English version is classified as stative verb while Japanese version is dynamic verb (for example, *kinchoosuru* 'to be nervous', *aisuru* 'to love'). Another contrast is that of adjective versus stative process verbs. *itai* ('it hurts') is an adjective in Japanese, whereas 'hurt' is not a stative predicate in English, since it is congruent with progressives ('my shoulder is hurting'). Posture verbs (for example, 'sit' and 'stand') are also one of the ambiguous cases. In Chinese, they fall into the category of state, since they do not co-occur with progressive marker (Li 1989). Whereas in English, it can be classified into activity if agency or dynamicity is the criteria (Shirai 1991). Thus, stative or dynamic verb may represent different inventory of lexical items among different languages.

There is a critique for the analysis above. Some claim that lexical categorization is universal if

we distinguish ‘inherent aspect’ and ‘grammatical aspect’. It is assumed that there is an abstract entity called inherent aspectual meaning to each verb, which is independent of the meaning of grammatical or viewpoint aspectual marker attached to the verb. It is the grammatical aspect, or the grammaticalization of certain aspectual notions of verbs, that varies from language to language, and inherent aspectual meaning of a verb remains stable; that is, universal across languages. If we take this perspective, the analysis of Japanese verb *shi-ru* and *shi-tteiru* will be absurd. RU in *shi-ru* and TEIRU in *shi-tteiru* are both grammatical aspect markers, the former giving inchoative or ‘entry into state’ meaning to the verb, while the latter adding sense of continuation. The inherent meaning of the verb would be ((to know)), which is a stative, not action. Rispoli’s analysis is not appropriate if we take this view because his interpretation of inherent meaning of the verb arises from the form *shi-ru*, which has a grammatical aspect marker RU attached to the verb, imposing its meaning on the inherent verb meaning. Therefore the inchoative meaning derives from the aspect marker RU, not from the verb stem. Also, TEIRU is not attached to *shi-ru* with punctual meaning, but to *shi*, which is stative. Thus, to the advocates of this perspective, Rispoli is mixing up inherent aspect and grammatical aspect.

However, this approach has its weakness as well. How can the inherent aspectual meaning of a verb be determined? This is especially problematic in a language like Japanese, in which the verb stem, when separated from the grammatical aspectual markers, does not form a word (for example, **ais*, **shi*, **su*), meaning that there is no where to ask for semantic clue. In verbs such as *ak*- (‘to open’ intransitive), it is actually after (R)U is attached to it that it can denote the process of opening (*ak-u*). When TEIRU is combined, however, it comes to mean ‘is open’ (*ai-teiru*). The problem here is that if we are given just the stem *ak*-, we have no idea what the inherent meaning of the verb is, because *ak*- is not a word for Japanese speakers. This indicates that to determine the inherent aspectual meaning of a verb, we are unconsciously relying on one of the viewpoint aspectual markers; asking the viewpoint aspect markers for help to elicit the inherent meaning separate from viewpoint aspectual meaning.

This opposition needs to reach certain agreement if we are to pursue studies on the acquisition of semantic verb category and verb inflections; otherwise the credibility of crosslinguistic comparison will remain ambiguous.

3.2. Suggestions for Future Studies

As I have stated briefly in the beginning of this paper, Japanese tense /aspect system is far from attaining systematic explanation. In general, Japanese language depends not only on the grammatical constructions but also, or rather, more heavily on pragmatic, contextual factors such

as evidentiality. Tense/aspect system is not an exception; and that is why what TA or TEIRU is actually doing in real sentences cannot be captured in a straightforward manner. I have a suggestion for future studies in connection to this. It would be a better idea if we start from no specific hypothesis concerning which inflection is more likely to be matched with verbs with certain semantic meaning. This is because there is a possibility that researcher may misuse certain hypothesis just because it has worked out in studies of other languages, due to the lack of full understanding of the organization of Japanese adult grammar. A pure bottom-up approach to the child data seems to be more sound and safer to start with.

My expectation is that some findings from this type of investigation would be somewhat useful in the clarification of Japanese tense/aspect system itself. Observational data of child language acquisition in general may provide significant insights to the analysis of adult grammar. As for this particular scope of study, it may help find out the core meaning or prototypical function of tense/aspect marker, assuming that children pick up the most frequently used type together with the contextual information, for what child is modeling is adult speech after all.

Furthermore, a survey of prototypical meaning of the tense/aspect markers would be worth time and effort. This will contribute to both the explication of the basic meanings of the inflections and also the study of aspect before tense principle. One interesting question related to this would be as follows: How do children acquire the functions of inflection in relation to the verb categories? Pursuit of such question that inquires the acquisition process of the inflection itself should bring up significant suggestions to the study of POA in Japanese acquisition.

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