

# Introducing Aspect: A View from the Northern Kyushu Dialect\*

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## Abstract

Ogihara (1998) and McClure (2007) present a semantic explanation for the obvious differences of aspectual interpretation between English and Japanese. In this paper, however, I will argue that their analyses do not adequately capture the characteristics of Northern Kyushu dialect and propose that the cross-linguistic differences are triggered by the semantic nature of aspectual head. More specifically, the aspectual feature of *-te iru* is underspecified and the aspectual interpretation is anchored from the lexical semantics of a verb. The aspectual head in Northern Kyushu dialect, on the other hand, is specified for the aspectual feature which coerces a particular aspectual interpretation.

Keywords: Aspect, *-toru/-yoru/-te iru*, Event structure, Underspecification

## 1. Introduction: The Interpretation of Aspect in Japanese

The interpretation and the derivation of aspect in Japanese has been investigated since Kindaichi's (1950) insightful and influential classification of verbs (also see Kudo 1995, McClure 2007, Ogihara 1998, Urushibara 2004, 2005, Usuki 2008, 2009a,b and among others). In Standard Japanese (henceforth, SJ), a *V-te iru* construction expresses either perfective or progressive aspect, and its behavior is almost equal to *be -ing* and *have -en* in English. It is generally observed that the interpretation *V-te iru* construction reflects the lexical semantics (or lexical aspect) of the verb as exemplified below (the examples (1) are taken from Urushibara 2004):<sup>1</sup>

- (1)a. \**Ima kaigi-ga at-te-i-ru.*  
 Now the meeting-Nom exist-*te i-ru*  
 'There is a meeting being held now.'  
 (\*progressive/\*perfective) <States>
- b. *Taro-ga hashi-te i-ru.*  
 Taro-Nom run-*te i-ru*  
 'Taro is running.'

- (progressive/\*perfective) <Activities>
- c. *Taro-ga hon-o yon-de i-ru.*  
 Taro-Nom book-Acc read-*te i-ru*  
 'Taro is reading a book' or 'Taro has read a book.'  
 (progressive/perfective) <Accomplishments>
- d. *Densha-ga eki-ni tui-te i-ru.*  
 train-Nom station-Dat arrive-*te-i-ru*  
 'The train has arrived at the station.'  
 (\*progressive/perfective) <Achievements>

According to Urushibara (2004), Kindaichi's (1950) classification of verbs corresponds to Vendler(1967)-Dowty(1979) classification of four verb classes.<sup>2</sup> A verb of state, as shown in the example (1a), cannot co-occur with *-te iru* since the statives do not exhibit eventuality (see Urushibara 2004). As the example (1b) shows, a verb of activity does not exhibit perfective reading, and it has only a progressive reading. An accomplishment verb in (1c), on the other hand, can have both perfective and progressive readings. Finally, achievement verbs as shown in the example (1d) only has a perfective reading in SJ.<sup>3</sup> Note that a rather sharp contrast is observed in Achievements between English and SJ as demonstrated below.

- (2)a. The train has arrived at the station.  
 (perfective reading)
- b. The train is arriving at the station.  
 (near-future reading)
- c. *Densha-ga eki-ni tui-te i-ru.*  
 train-Nom station-Dat arrive-*te-i-ru*  
 'The train has arrived at the station.'  
 (cf. '\*The train is arriving.')

In English, *be -ing* form triggers a near-future reading (henceforth, NF reading) as shown in (2b), where only a perfective reading is possible candidate in SJ as (2c) shows. Now, the question is what causes the difference between the languages in terms of the interpretation

of achievement verbs in *be -ing* form and *V-te iru* construction. Moreover, the question leads to more complication when we take Northern Kyushu Dialect of Japanese (henceforth, NK) into consideration. NK is a dialect spoken in the northern part of Kyushu Island in Japan, and it has distinct aspectual morphemes for perfective and progressive. As for a perfective, NK uses an aspectual morpheme *-toru* as described in (3b), and another aspectual morpheme *-yoru* expresses a progressive aspect. Interestingly, when the progressive morpheme *-yoru* attaches to an achievement verb, NF reading is available as demonstrated in (3a).

- (3)a. *Densha-ga eki-ni tuki-yoo.*  
 train-Nom station-Dat arrive-*yoo*  
 ‘The train is arriving at the station.’  
 (near-future reading)
- b. *Densha-ga eki-ni tui-too.*  
 train-Nom station-Dat arrive-*too*  
 ‘The train has arrived at the station.’  
 (perfective reading)

In the example (3a), the train is about to reach the station or a designated goal, but it has not yet arrived, whose aspectual meaning is similar to *The train is arriving* in English.

In this paper, I will focus on the issue of cross-linguistic differences in aspectual interpretation of achievement verbs between English and Japanese, and show that a perspective from NK reveals the nature of an aspectual head. More specifically, I will propose that in English and NK the aspectual property of aspectual head is determined, and progressive and perfective have distinct morphological realizations. In the case of SJ, however, the property of the aspectual head *-te iru* is underspecified and the aspectual interpretation relies on the lexical semantics of a verb.

In Section 2, I will briefly review Ogihara (1998) and McClure (2007) who present an explanation for the cross-linguistic differences in terms of semantic and morphological differences. I will argue that their explanation does not capture the nature of *V-te iru* construction when NK is taken into consideration. In Section 3, I will consider Urushibara’s (2004) suggestion that a progressive morpheme *-yoru* is lexically related to *-kake* ‘about to’ in SJ. I will show that *-yoru* and *-kake* cannot be seen as a morpheme which has the same function, and present an alternative proposal which deals with the cross-linguistic differences between English and Japanese including NK.

## 2. The Interpretation of Achievements in the Progressive

Ogihara (1998) and McClure (2007) propose an explanation for the cross-linguistic differences between English and SJ in terms of their aspectual interpretations.<sup>4</sup> In this section, I will show that their explanation cannot be adequate when we concern the distribution and interpretation of aspectual morpheme in NK. One of the obvious differences between English and SJ is the aspectual interpretation of achievement verbs shown in the examples in (2) (repeated here as (4)).

- (4)a. The train has arrived at the station.  
 (perfective reading)
- b. The train is arriving at the station.  
 (near-future reading)
- c. *Densha-ga eki-ni tui-te i-ru.*  
 train-Nom station-Dat arrive-*te-i-ru*  
 ‘The train has arrived at the station.’  
 (cf. ‘\*The train is arriving.’)  
 (perfective reading/\*near-future reading)

The basic claim of Ogihara (1998) seems to be that the aspectual interpretation of *V-te iru* construction is determined by the lexical semantics of the verb in *V-te iru* construction. Furthermore, the lexical semantics of *arrive* in (4b) and *tuku* in (4c) is fundamentally different, and the basic class of achievements in English and Japanese does not overlap and they are occasionally related (see Ogihara 1998 for a detailed semantics of *be arriving* and *tui-te iru*). It might be attractive and also plausible to assume the lexical difference between *arrive* in English and *tuku* in Japanese since there in fact exist apparent lexical differences in stative verbs.

- (5)a. *Takuya-wa ani-ni ni-te iru.*  
 Takuya-Top brother-Dat resemble-*te iru*  
 ‘Takuya resembles his brother.’  
 (cf. ‘\*Takuya is resembling his brother.’)
- b. *Takuya-wa shinjitu-o shi-tte iru.*  
 Takuya-Top truth-Acc know-*te iru*  
 ‘Takuya knows the truth.’  
 (cf. \*Takuya is knowing the truth.)

In the examples above, *niru* (which means like *resemble* in English) in (5a) and *shiru* (which means like *know* in English) in (5b) can appear in *V-te iru* construction. It is generally assumed that Japanese has a relatively small class of stative verbs (e.g. *aru* ‘(inanimate subject) exist’, *iru* ‘(animate subject) exist’, and so on) and as the

example (1a) (repeated here as (6)) shows stative verbs in Japanese cannot appear in *V-te iru* construction.

- (6) \**Ima kaigi-ga at-te-i-ru.*  
 Now the meeting-Nom exist-*te i-ru*  
 ‘There is a meeting being held now.’  
 (\*progressive/\*perfective) <States>

Therefore, the verbs *niru* and *shiru* in Japanese are non-stative verbs (Kageyama 2009), contrary to verbs *resemble* and *know* in English where they are assumed to be statives and cannot participate in progressive *be -ing* form. If Ogihara’s approach is on the right track, we will come across another paradoxical problem in relation to achievement verbs in NK. As mentioned above, the achievement verb in NK *tuki-yoo* in (7a) shows NF reading just like *The train is arriving* in English, which is impossible in SJ.

- (7)a. *Densha-ga eki-ni tuki-yoo.* (near-future reading)  
 train-Nom station-Dat arrive-*yoo*  
 ‘The train is arriving at the station.’  
 b. *Densha-ga eki-ni tui-too.* (perfective reading)  
 train-Nom station-Dat arrive-*too*  
 ‘The train has arrived at the station.’

Ogihara (1998) does not concern the case of NK, but if we assume Ogihara’s explanation for the difference of *tuku* and *arrive*, *tuku* in NK might be analyzed to have a distinct lexical semantics from *tuku* in SJ, and *tuku* in NK somehow possesses the similar lexical semantics with *arrive* in English. It is not plausible and economical to assume that two different dialects of the same language have distinct lexical semantics for the verb *tuku*. Therefore, it is obvious that Ogihara’s proposal cannot capture and explain the whole variation of aspectual expressions in Japanese, which also casts a doubt on Ogihara’s explanation for the difference between English and Japanese in relation to their aspectual interpretations since achievement verbs in NK exhibits the same NF reading as the case of *The train is arriving* in English.

McClure (2007), contrary to Ogihara (1998), proposes that the differences between English and SJ are triggered not by the lexical semantic difference of a particular verb but by the categorical differences between *have/be* and *iru*. As summarized in (8), McClure (2007) assumes that the perfective/progressive morpheme *have/be* in English is a copular which takes a participle, and *iru* in Japanese is in fact an auxiliary verb which takes an

eventive gerund, which results in semantic differences between English and Japanese.

- (8)a. English: participle (*-en/-ing*) + copular (*have/be*)  
 b. Japanese (SJ): gerund + auxiliary verb (*iru*)

Essentially, it is assumed that a participle is adjectival and progressive *be -ing* in English as in (9b) is a stative which has the same semantic representation with a stative predicate *John is happy* in (9c). The semantic representation is depicted in (10b) and (10c) respectively.

- (9)a. John swam.  
 b. John is swimming.  
 c. John is happy.  
 (McClure 2007)  
 (10)a.  $\lambda e[\text{swim}(e) \wedge \theta(e, \text{John}) \wedge \text{Past}(e)]$   
 b. swim (John)  
 c. happy(John) (ibid.)

McClure (2007) states “A sentence like *John swam* refers to a set of events of swimming in the past where John is the agent of the swimming. The progressive, on the other hand, is a simple predicate, as in (10b), which is understood to mean that John swims is true if John is a member of the set of swimmers. *Swimming* is semantically parallel to *be happy* in (10c). (McClure 2007: 249)”<sup>5</sup> On the other hand, in Japanese *iru* in *V-te iru* construction is an auxiliary verb and it has an event argument. McClure (2007) assumes that *iru* has an event argument and *oyoi-de iru* in (11b) is a complex verbal predicate composed of gerund and a verb of existence. The semantics of *oyoi-de iru* is presented in (12b).<sup>6</sup>

- (11)a. *John-ga oyoide.*  
 John-Nom swim-Past  
 ‘John swam.’  
 b. *John-ga oyoide iru.*  
 John-Nom swim-*te iru*  
 ‘John is swimming.’  
 c. *John-ga genki-da.*  
 John-Nom happy-*da*  
 ‘John is happy.’  
 (McClure 2007)

The semantic representation of *oyoi-de iru* in (12b) shows a sharp contrast, comparing to an English counterpart *be swimming* in (10b). As (12b) shows, there is a set of events of swimming where the agent is John, and the

existential verb *iru* takes the event as an argument, which roughly indicates the event exists. Achievement verb *tui-te iru* is represented to have a basically similar semantics with activity verbs *oyoi-de iru* as described in (13e).

- (12)a.  $\lambda e[\text{swim}(e) \wedge \theta(e, \text{John}) \wedge \text{Past}(e)]$   
 b.  $\lambda e^{\sim}[\text{swim}(e) \wedge \theta(e, \text{John})]$   
 c. happy(John)  
 (McClure 2007)

- (13)a. John-ga tuite iru  
 John-Nom arrive-*te iru*  
 “John has arrived.”  
 b. [[s John-ga tui]-te] iru  
 c.  $\text{iru}^* = \lambda P[\lambda e^{\sim} [P(e)]]$   
 d.  $(\text{John-ga tui})^* = \lambda e[\text{arrive}(e) \wedge \theta(e, \text{John})]$   
 e.  $(\text{John-ga tui-te-iru})^* = \lambda e^{\sim}[\text{arrive}(e) \wedge \theta(e, \text{John})]$   
 (ibid.)

According to McClure (2007), a lack of progressive interpretation in *tui-te iru* compared to *oyoi-de iru* is due to the lexical difference between Activities and Achievements. As the examples in (14) show, Achievements *John is arriving* in (14c) does not entail *John has arrived* contrary to Activities and Statives in (14a-b).

- (14)a. Activity entailment: John is running  
 → John has run.  
 b. State entailment: John loves his dog  
 → John has loved his dog.  
 c. Achievement entailment: John is arriving /  
 → John has arrived.  
 (McClure2007)

The difference between Achievements, States and Activities is characterized by the property of homogeneity, namely, Activities consists of sub-event of the activity of the same kind and Statives consists of the same property in the interval of time, which ensures the entailment in (14a-b). Achievements, on the other hand, consists of no sub-event and does not have an entailment as shown in (14c), which in turn explains the lack of progressive interpretation of Achievements *tui-te iru* in Japanese.

McClure’s analysis, however, encounters two apparent problems. First, according to his analysis, progressive form *be-ing* in English is a stative and Activities and Achievements must have semantically parallel representation shown in the examples (15a-b). Semantics of (15b) means, as in the case of other progressives, John is

arriving is true if there is a set of arriver.

- (15)a. swim(John) ‘John is swimming.’  
 → ‘John has swum.’  
 b. arrive(John) ‘John is arriving.’ /  
 → ‘John has arrived.’

Now, it is unclear how to explain the lack of entailment in (15b) when the event is understood as a simple stative as McClure’s claim. Furthermore, it is rather mysterious why the only (15b) has a NF reading, which is a reading Activities and States cannot express. The second problem arises when we look at the distribution of Achievements in NK as shown in (16).

- (16)a. Densha-ga eki-ni tuki-yoo.  
 train-Nom station-Dat arrive-*yoo*  
 ‘The train is arriving at the station.’  
 (near-future reading)  
 b. Densha-ga eki-ni tui-too.  
 train-Nom station-Dat arrive-*too*  
 ‘The train has arrived at the station.’  
 (perfective reading)

As I have mentioned above, in NK Achievements has a NF reading just as a case of Achievements in English. If the analysis that Japanese *iru* is an existential verb and takes an event expressed with gerund form as McClure (2007) claims, the difference between SJ and NK cannot be explained.

In this section, I have briefly reviewed Ogihara (1998) and McClure (2007) and I have argued that their explanation for the cross-linguistic differences of aspectual interpretations between English and Japanese is in fact insufficient to explain the case of NK which shows the similar property to English in the aspectual interpretation of Achievements. In the following section, I will examine Urushibara’s (2004) suggestion for *-yoo(-yori)* with Achievements and propose an alternative analysis to capture the distribution of *-yoo (-yori)* in NK.

### 3. A Perspective from Northern Kyushu Dialect and Underspecification of Aspect

Based on the syntactic configuration proposed by Ritter and Rosen (2002), Urushibara (2004, 2005) proposes a syntactic account for the derivation and the interpretation of aspectual expression in SJ and NK, namely, *V-te iru* and *-toru* and *-yori* respectively. Urushibara (2004, 2005) observes NF reading with *-yori* when it attaches

to Achievements as in *Densha-ga eki-ni tuki-yoo*, and points out the semantic (or aspectual) similarity of *-yori* in NK and *-kake* in SJ. The *-kake* construction in SJ has been discussed in Tsujimura and Iida (1999), and they observe that there are two interpretations of *-kake* construction: one is called “inception reading” where an event or an action has not taken place yet but it is about to happen, and the other is called “halfway reading” where an event or an action is halfway done and is still going on as demonstrated in (17a) with Activities and in (17b) with Accomplishments.

- (17)a. Taroo-ga hasiri-kake-ru.  
Taroo-Nom run-*kake*-pres  
‘Taroo is halfway running.’  
or ‘Taroo is about to run.’
- b. Taroo-ga hon-o yomi-kake-ru.  
Taroo-Nom book-Acc read-*kake*-pres  
‘Taroo is halfway reading a book.’  
or ‘Taroo is about to read a book.’
- c. Taroo-ga sini-kake-ru.  
Taroo-Nom die-*kake*-pres  
‘Taroo is about to die.’
- (Urushibara 2004: 790)

Urushibara (2004) notes that Achievements with *-kake* only has an inception reading as shown in (17c), and she suggests a possibility to analyze the aspectual morpheme *-yori* in NK as a counterpart of *-kake* in SJ since Achievements with *-yori* also triggers a meaning ‘about to do something.’ However, I will show that *-kake* in SJ and *-yori* in NK have in fact different functions and cannot be seen as the same aspectual morphemes. First, as mentioned above and also shown in (18b), *-kake* construction with Accomplishments has an ‘inception reading’ and a ‘halfway reading’. Accomplishments with *-yori* in (18a), on the other hand, has neither of the readings and only has progressive interpretation, which clearly indicates that the semantic properties of *-kake* and *-yori* are different.

- (18)a. Taroo-ga hon-o yomi-yoo.  
Taroo-Nom book-Acc read-yoo  
‘Taroo is reading a book.’
- b. Taroo-ga hon-o yomi-kake-ru.  
Taroo-Nom book-Acc read-*kake*-pres  
‘Taroo is halfway reading a book.’  
or ‘Taroo is about to read a book.’

Second, as the contrast in (19) shows, *-yori* cannot co-occur with a complementizer *-no* as depicted in (19a), but *-kake* does appear with a complementizer *-no* as shown in (19b), which shows that *-yori* and *-kake* surely belong to distinct syntactic categories.

- (19)a. \*koware-yoo-no bilu  
break-*yoo-no* building  
‘a half-broken building’
- b. koware-kake-no bilu  
break-*kake-no* building  
‘a half-broken building’

Finally, as (20a) shows *-kake* and *-yori* can co-occur in NK, which strongly suggests that they belong to distinct functional heads. Note also that as in the example (20b) *-kake* can be used with *-te iru* in SJ, which further supports that *-kake* and *-te iru* (and plausibly *-yori*) functions differently in Japanese.

- (20)a. Furui kanban-ga kabe-kara ochi-kake-yoo. (NK)  
Old sign-Nom wall-from fall-*kake-yoo*  
‘An old sign is about to fall from the wall.’
- b. Furui kanban-ga kabe-kara ochi-kake-te iru. (SJ)  
Old sign-Nom wall-from fall-*kake-te iru*  
‘An old sign is about to fall from the wall.’

Therefore, I conclude that *-yori* in NK cannot be a lexical counterpart of *-kake* in SJ based on their apparent semantic differences and syntactic behaviors.

Urushibara (2005) suggests a possible generalization that a language which has distinct aspectual morphemes for perfective and progressive has a NF reading.<sup>7</sup> In this paper, I will explore the possibility to reduce Urushibara’s generalization to a feature of an aspectual head, and propose an alternative analysis for the cross-linguistic differences in the availability of a NF reading. Following Ogihara (1998), I assume *-te* in *V-te iru* construction is an aspectual head which can denote a perfective sense since, as Ogihara (1998) points out, *-te* itself can express perfective meaning as shown in (21a), contrary to (21b) which lacks a perfective reading.

- (21)a. Gohan-o tabe-te, hon-o kat-ta.  
meal-Acc eat-TE, book-Acc buy-Past  
‘(I) had dinner and (then) bought a book.’
- b. Gohan-o tabe, hon-o kat-ta.  
meal-Acc eat, book-Acc buy-Past  
‘(I) had dinner and bought a book.’

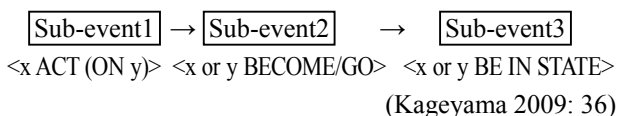
(Kuno 1973: 195 cited in Ogihara 1998: 107)

Ogihara (1998) assumes that *-te* carries either [+perfective] feature or [+progressive] feature. Contrary to Ogihara's proposal, I propose that the aspectual feature of *-te* in SJ is in fact underspecified and the aspectual interpretation is determined by the event structure and I also propose that the aspectual feature of aspectual head in NK and English is determined where the aspectual head coerces either perfective or progressive interpretations. I assume that this parametric difference of aspectual head yields cross-linguistic differences which have observed in the previous section.

- (22)a. SJ: the aspectual feature of *-te iru* is underspecified and the aspectual interpretation is determined by the lexical semantic property of the verb.  
 b. NK & English: the aspectual feature of the aspectual head is either [Perf(ective)] or [Prog(ressive)] and it has a distinct morphological realization (e.g. *-yoru/-toru*, *be -ing/ have -en*).

According to Kageyama (2009) in the framework of the modular morphology, each verb class of Vendler-Dowty's classification is expressed as a set of Sub-events in (23). The combination of Sub-events is shown in (24).

(23) Lexical Conceptual Structure Based on Causal Chain<sup>8</sup>



As (24a) shows, first, States only consist of Sub-event 3 which denotes no eventuality. Second, Activities are composed only by the Sub-event 1 <x ACT (ON y)> which denotes the initiation of the event. Third, Accomplishments consist of Sub-events 1+2+3, which denotes initiation of the event and result along with the process. Fourth, Achievements consist of Sub-events 2+3, which specifies an event which reaches to the result along with a certain process.

- (24)a. States : Sub-event 3  
 b. Activities : Sub-event 1  
 c. Accomplishments : Sub-event 1+2+3  
 d. Achievements: Sub-event 2+3

I assume that the aspectual interpretation of underspeci-

fied aspectual head *-te iru* is determined based on the eventuality which a verb has and represented in (23), and the progressive interpretation is derived where a verb consists of the Sub-event 1 as exemplified in (25b-c). The perfective interpretation is available where a verb consists of Sub-events 2+3 as exemplified in (25c-d).<sup>9</sup> This proposal correctly implies that *-te iru* cannot co-occur with States since it lacks eventuality as the ungrammaticality of the example (25a) indicates. Note that the essential ingredient which derives the progressive interpretation is having the Sub-event 1 in (23), which represents that the event has an initiator. Therefore, Achievement verbs in the example (25d) only has a perfective interpretation since it lacks the Sub-event 1 or initiator of the event.

- (25)a. \**Ima kaigi-ga at-te-i-ru.*  
 Now the meeting-Nom exist-*te i-ru*  
 'There is a meeting being held now.'  
 (\*progressive/\*perfective) <States>  
 b. *Taro-ga hashi-te i-ru.*  
 Taro-Nom run-*te i-ru*  
 'Taro is running.'  
 (progressive/\*perfective) <Activities>  
 c. *Taro-ga hon-o yon-de i-ru.*  
 Taro-Nom book-Acc read-*te i-ru*  
 'Taro is reading a book' or 'Taro has read a book.'  
 (progressive/perfective) <Accomplishments>  
 d. *Densha-ga eki-ni tui-te i-ru.*  
 train-Nom station-Dat arrive-*te-i-ru*  
 'The train has arrived at the station.'  
 (\*progressive/perfective) <Achievements>

I assume, on the other hand, that in the case of NK the aspectual feature of the aspectual head is determined and perfective head is morphologically realized as *-toru* and progressive head is morphologically realized as *-yoru*. The difference of the aspectual interpretation between *-te iru* and *-toru/yoru* is that the latter case coerces aspectual interpretations as long as the vP consists of eventuality since *-toru/yoru* itself carries an aspectual meaning. As a result, as shown in (26), Statives can occur with *-toru/yoru* when it has an event nominal *kaigi* 'meeting' as its subject and the option of event transfer is available in the language (see Urushibara 2004 for the detailed discussion of event transfer).<sup>10</sup>

- (26)a. *kaigi-ga at-too.*  
 meeting-Nom exist-*too*  
 'A meeting has held.'

- b. kaigi-ga ari-yoo  
meeting-Nom exist-yoo  
'A meeting is being held.'

(Urushibara 2005)

Finally, I assume that NF reading of Achievements in (27a) is due to the coercive nature of the aspectual head in NK. The clear contrast of (27b-c) indicates that *-yoo* in Achievements focus on the Sub-event 2 when the process of the event becomes salient by the adverb *slowly* which emphasizes that the process of the event is proceeded slowly.

- (27)a. Densha-ga eki-ni tuki-yoo.  
train-Nom station-Dat arrive-yoo  
'The train is arriving at the station.'
- b. Densha-ga yukkurito eki-ni tuki-yoo.  
Train-Nom slowly station-Dat arrive-yoo  
'The train is slowly arriving at the station.'
- c. \*Densha-ga yukkurito eki-ni tui-too.  
train-Nom slowly station-Dat arrive-too  
'The train has slowly arrived at the station.'

These examples in (27) suggest that NF reading is derived upon Achievements when the Sub-event 2 or process of the event is focused by an aspectual head just as *-yoo* in NK and *be-ing* form in English. Returning to the clear contrast of Achievements between SJ and NK shown in the examples (28), the reason for NK having a NF reading in (28a) and SJ not having NF reading is now clear. In the case of NK, as I have mentioned above, the NF reading is available since the aspectual head *-yoo* puts a focus on the Sub-event 2 or process of event which reaches to the Sub-event 3 or result of the denoted event in the temporal sequence. It is also important to mention that in the (28a) it lacks a usual progressive reading since it does not have a Sub-event 1 or the initiator of the event, which is the important ingredient for the progressive interpretation. The achievement verbs in SJ in (28b) do not have either a progressive interpretation or a NF reading since it has no Sub-event 1 or the initiator of the event and the underspecified aspectual head *-te iru* cannot focus on the Sub-event 2 or the process of the event which the verb denotes.

- (28) a. Densha-ga eki-ni tuki-yoo.  
train-Nom station-Dat arrive-yoo  
'The train is arriving at the station.'
- b. Densha-ga eki-ni tui-te i-ru.

- train-Nom station-Dat arrive-*te-i-ru*  
'The train has arrived at the station.'  
(\*progressive/perfective)

Therefore, I conclude that Urushibara's (2005) generalization that a language which has distinct aspectual morphemes for perfective and progressive has a NF reading can be reduced to the coercive nature of the aspectual head, and the difference of the behavior of achievement verbs shown in (28) is clear by assuming the underspecified nature of the aspectual head in SJ.

#### 4. Concluding Remarks

In this paper, first I have reviewed Ogihara (1998), McClure (2007) and shown that their explanation for the cross-linguistic variation in terms of aspectual interpretations is insufficient to treat the case of NK properly. I have proposed that the cross-linguistic differences can be explained assuming the underspecified nature of *-te iru*. There are, however, remaining questions to be investigated, for example, how to treat Kindaichi's (1950) fourth verbal class and so on. I will leave the remaining issues for the future work.

#### Notes

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<sup>1</sup> See Kudo (1995) for more precise classification of *V-te iru* construction based on the meaning. In this paper, I tentatively ignore Kudo's (1995) classification just for the simplicity of the discussion.

<sup>2</sup> Toratani (1998) proposes the fifth verb class "active accomplishment" in addition to the Vendler-Dowty's four classes mentioned above. The active accomplishment class includes the following verbs in (i).

- (i)a. Piza-hitokire-o tabe-ru.  
Pizza-a slice-Acc eat-Pre  
'I eat a slice of pizza.'
- b. Koen-made aruk-u.  
park-to walk-Pre

‘I walk to the park.’

In this paper, I will not take Toratani’s classification and assume the Vendler-Dowty’s classification. One reason to take Vendler-Dowty’s position is that it might be possible to assume the examples (ia-b) as a sub-class of derived-accomplishment which has an incremental theme which is measured along with the temporal sequence as in (ia) and designated goal in (ib)(see Tenny 1994).

<sup>3</sup> I will come back to the issue concerning the causes of each interpretation later referring to the lexical semantics of each verb classes (Kageyama 2009).

<sup>4</sup> Ogihara (1998) also presents a rather interesting analysis of Kindaichi’s (1950) fourth class of verbs which inevitably appears with *-te iru* (e.g. *sobieru* ‘to tower’, *zubanukeru* ‘to outstand’, *magaru* ‘to bend’, etc.). Ogihara proposes that they are a type of defective instantaneous verbs in his semantic framework. The treatment of Kindaichi’s fourth class of verbs is still controversial but Ogihara’s treatment might shed a new light on the nature of the mysterious class of verbs (also see Kageyama 2008). The issue is obviously important and worth investigating, but, for the sake of simplicity of discussion, I will leave it for the future work.

<sup>5</sup> See McClure (2007) for supporting evidence to treat *be-ing* is a simple stative predicate.

<sup>6</sup> For the examples (11) and (13), literal translation of Case and other functional morphemes are added to the original examples of McClure (2007) just to show grammatical functions of each morpheme explicitly and this modification surely does not affect the main discussion.

<sup>7</sup> Needless to say, a further investigation is in need to justify the generalization. So far, it is true at least in the cases of English and SJ and NK.

<sup>8</sup> The translation is my own, and there is a confusion in the terminology of Sub-event 3 since the Sub-event 3 is in fact a stative which has no event. Therefore, in (23) I use the term Sub-event 3 just for the terminological consistency with other Sub-events 1 and 2, which does not mean Sub-event 3 consists of eventuality.

<sup>9</sup> Usuki (2009a) shows some cases where Measure Phrase and some types of adverbials can coerce a particular aspectual interpretation as shown in (i).

- (i)a. Taroo-ga hon-o 100-peeji yon-de iru  
 Taroo-Nom hon-Acc 100-pages read-te-iru  
 ‘Taroo has read 100 pages of the book.’  
 (cf. \*Taroo is reading page 100 of the book.)  
 b. Taroo-wa gurando-o 10 shu hashi-te iru.  
 Taroo-Top ground-Acc ten laps run-te iru

‘Taroo has run 10 laps around the ground.’

(cf. \*Taroo is running 10 laps around the ground)

As shown in (i) above, the perfective reading is coerced by the introduction of MPs *100-peeji* and *10 shu* respectively. Based on these data, Usuki (2009a) proposes that two types of delimitedness work to determine the aspectual interpretation of *V-te iru* construction in Japanese. See Usuki (2009a) for more data and discussion.

<sup>10</sup> Here I tentatively assume the option of event transfer is not available in English for some reasons, which explains a lack of perfective or progressive forms of Statives. I will leave the justification of the issue for the future work.

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