Japanese Experiential *-te iru* as an Individual-Level Construction

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1. Introduction

The Japanese *-te iru* is best known as an aspectual form that yields progressive and perfective readings. The *-te iru* form of an activity verb yields a progressive reading, and the *-te iru* form of an achievement verb yields a perfective reading. Many formal analyses of these two readings can be found in the literature (Ogihara, 1998; Shirai, 2000; Kusumoto, 2003; McClure, 2007 to name a few). However, what is often ignored is the third reading of the *-te iru* form, which is the experiential reading. Given certain contexts, experiential readings are available to the *-te iru* forms of both activity and achievement verbs. The experiential reading was first discussed in Fujii (1966), but discussion of the experiential *-te iru* remains descriptive (Soga, 1983).

The focus of this paper is the experiential reading of the *-te iru* form. Specifically, I will present a formal semantic analysis of experiential *-te iru*. I will show that experiential *-te iru* has a distinct semantic representation from progressive and perfective *-te iru*. Essentially, while progressive and perfective *-te iru* represents a set of events predicated of an individual (McClure, 2007), experiential *-te iru* represents a set of individuals predicated of an event.

Consequently, as predicates of individuals, I argue that experiential *-te iru* has properties that parallel those of Individual-Level Predicates (Carlson, 1977). An important implication here is that the notions Individual-Level or Stage-Level do not have to be linked to individual lexical items. Even when a Stage-Level predicate is used, a sentence as a whole can still have the properties of an Individual-Level Predicate if that sentence represents a property of a set of individuals. In this paper, I argue that experiential *-te iru* is an example of just such a predicate type. Experiential *-te iru* is an Individual-Level "Construction" because in its denotation an individual argument takes wide scope and an event argument takes narrow scope.

The organization of this paper is as follows. In section 2, a descriptive discussion of the three readings of the *-te iru* form will be presented. In section 3, an event semantic analysis of progressive and perfective *-te iru* by McClure (2007) will be introduced, and based on this work, the semantics of experiential *-te iru* will be proposed. In section 4, the parallel between the experiential *-te iru* and Individual-Level Predicates will be shown. In section 5, the analysis of experiential *-te iru* will be extended to a general term and a logical representation of an Individual-Level Construction will be proposed.

2. Three readings of the *–te iru* form

2.1. Classification of Japanese verbs

In his influential work, Kindaichi (1976) classifies Japanese verbs into four categories in terms of their internal temporal structures. This is an adaptation of verb classification in English by Vendler (1967). What is notable about the Japanese classification by Kindaichi is that verbs are classified solely by the use and meaning of the *-te iru* form.

	Stative I	**Activities**	**Achievements**	**Stative IV**
Examples	*iru* (*be/exist*, animate) *aru* (*be/exist*, inanimate) *iru* (*be in need*)	*taberu* (*eat*) *oyogu* (*swim*) *hasiru* (*run*)	*sinu* (*die*) *otiru* (*fall*) *iku* (*go*)	*niru* (*resemble*) *sobieru* (*tower over*)
-te iru form	Not possible	Progressive	Perfective	Mandatory

Table 1: Kindaichi's aspectual classification of Japanese verbs.

The first category is called Stative I, which includes verbs that cannot appear in the *-te iru* form. This category parallels Vendler's category of States. Both States and Stative I are characterized by their open-endedness; i.e, they take place over a stretch of time and have no inherent endpoints. In addition, they have no internal stages. There are only a few verbs that belong to Stative I, examples of which are *iru* (*be/exist*, animate), *aru* (*be/exist*, inanimate), and *iru* (*be in need*).

The second category is called Activities. Activities include those verbs that yield progressive readings in the *-te iru* form. Activities take place over a stretch of time and have no inherent endpoints. Unlike Stative I, however, they involve internal stages. Examples of Activities include *taberu* (*eat*), *oyogu* (*swim*), and *hasiru* (*run*). If we take the verb *taberu* (*eat*), its *-te iru* form is *tabe-te iru*, and it has an interpretation equivalent to an English progressive *be eating*.

The third category is called Achievements. Achievements include those verbs that yield perfective readings in the *-te iru* form. Achievements have inherent endpoints and occur instantaneously. Examples of Achievements include *sinu* (*die*), *otiru* (*fall*), and *iku* (*go*). If we take the verb *sinu* (*die*), its *-te iru* form is *sin-de iru*[1]. It means something like *be dead* in English.

The fourth category is called Stative IV. Kindaichi claims that verbs of this category cannot appear without being used in the *-te iru* form. I omit a detailed examination of verbs that belong to this category in this paper, but Stative IV has been claimed to be a sub-category of Achievements (McClure, 1995; Ogihara, 1998). Given that this is correct, we can say that the interpretation of the *-te iru* form of a Stative IV verb is perfective. [2]

2.2. Progressive and perfective

Kindaichi's classification of Japanese verbs makes reference to the two readings of the *-te iru* form; i.e, progressive and perfective.

The *-te iru* form of an activity verb such as *oyogu* (*swim*) has an interpretation equivalent to an English progressive *be swimming*. As shown in (1a), *oyoi-de iru* means that an event of swimming is on-going. As such, it is compatible with an adverbial phrase such as *ima* (*now*).

[1] The *-te iru* form can be phonologically realized as *-de iru* by assimilation.

[2] In Vendler's classification of English verbs, there is a class of Accomplishments, as well as States, Activities, and Achievements. However, in Kindaichi's classification, there is no separate class of Accomplishments.

Accomplishments are essentially Activities with specific endpoints. For example, *draw a circle* denotes an event of drawing which terminates once a circle comes to an existence. With respect to *-te iru*, the Japanese equivalents of Accomplishments behave exactly like Activities; i.e, the *-te iru* forms of the Japanese equivalents of Accomplishments yield progressive readings. For example, the *-te iru* form of *maru-o kaku* (*draw a circle*) means that an event of drawing a circle is in progress.

On the other hand, the *-te iru* form of an achievement verb such as *iku* (*go*) does not have a progressive interpretation. In fact, as shown in (1b), *it-te iru* means that its agent is at a certain place as a result of her/him going there. To speak more generally, when the *-te iru* form of an achievement verb is used, whatever change of state that is referred to by the verb has to have taken place and the resulting state must obtain. The perfective *-te iru* is also compatible with an adverbial phrase such as *ima* (*now*). In (1b), the state of Mari's being in England obtains *now*.

(1) a. Mari-wa ima oyoi-de iru
Mari-TOP now swim-*te* *iru*
'Mari is swimming now'

b. Mari-wa ima igirisu-ni it-te iru
Mari-TOP now England-LOC go-*te* *iru*
'Mari (went to England and) is in England now'

2.3. Experiential

Progressive readings are unique to Activities while perfective readings are unique to Achievements. However, the third reading of *-te iru*, i.e. the experiential reading, is available to both Activities and Achievements given certain contexts.

Using the same activity verb from (1a), i.e. *oyogu* (*swim*), it is possible to create an experiential sentence such as the one in (2a). Likewise, using the same achievement verb from (1b), i.e. *iku* (*go*), it is possible to create an experiential sentence such as the one in (2b).

(2) a. Mari-wa ima made-ni san kai kono kawa-de oyoi-de iru
Mari-TOP now up.to-LOC three time this river-LOC swim-*te* *iru*
'Mari has swum in this river three times up to now'

b. Mari-wa ima made-ni san kai igirisu-ni it-te iru
Mari-TOP now up.to-LOC three time England-LOC go-*te* *iru*
'Mari has gone to England three times up to now'

Note that the adverbial phrase *ima made-ni san kai* (*three times up to now*) is used in both examples in (2). A modifier phrase like this one creates a context that accommodates an experiential interpretation. Otherwise, *oyoi-de iru* by itself is in fact ambiguous between progressive and experiential. Likewise, *it-te iru* by itself is ambiguous between perfective and experiential.

Experiential sentences, in present tense, describe experiences of individuals at the present moment. Although an experience is possessed by an individual at the present moment, what constitutes the experience is a set of past events. In (2a), Mari has some experience as of now, which is swimming in a particular river three times in the past. In (2b), Mari has some experience as of now, which is going to England three times in the past. Although the events of swimming and going are in the past, the examples in (2) are present tense sentences. What is true of the present or what obtains at the moment of speech in each sentence is the experience that Mari has.

2.4. Summary

In this section, the three readings of the *-te iru* form were reviewed. The first reading is progressive. Progressive readings are unique to the *-te iru* form of activity verbs. The second reading is perfective. Perfective readings are unique to the *-te iru* form of achievement verbs. Both progressive and perfective sentences are compatible with an adverbial phrase such as *ima* (*now*). The third reading is experiential. Given certain contexts, experiential readings are available to both activity and achievement verbs. An adverbial phrase such as *ima made-ni san kai* (*three times up to now*) provides a context that accommodates an experiential reading.

3. The semantics of *-te iru*

3.1. Analysis of progressive and perfective *-te iru* by McClure (2007)

McClure (2007) proposes an event based semantics of progressive and perfective *-te iru*. I introduce his proposal here first because my analysis of experiential *-te iru* will be based on this work.

McClure approaches the *-te iru* form by paying attention to its morphological components. Most importantly, he notes the fact that there is an independent lexical item, *iru*, which means *exist*. Although *iru* in *-te iru* is usually considered an auxiliary verb, McClure believes that there has to be some fundamental connection between the full fledged verb *iru* and the auxiliary verb *iru*. Second, McClure considers *-te* to be semantically vacuous. He refers to the work by Frellesvig (2001), where it is shown that *-te* is historically related to *-to*. Normally, *-to* is considered to be a syntactic complementizer. This in turn might suggest that *-te* is also a complementizer. In any case, for McClure, *-te* is a functional item in syntax, and it does not make any semantic contribution.

Based on this background, McClure claims that the semantic function of the auxiliary verb *iru* is to require extensionality of an event. Essentially, this means that the event has to actually exist, or the event has to be realized. This is derived from the meaning of the full-fledged verb *iru* (*exist*).

The analyses of progressive and perfective *-te iru* are compositionally shown in (3) and (4) below. The examples in (3) involve an activity verb *oyogu* (*swim*) and thus, its *-te iru* form has a progressive reading as shown in (3a). Based on the morphological analysis, the syntactic structure of (3a) is presented in (3b). In (3c), the logical form of *sensei-ga oyoi* (*teacher swim*) is shown in a standard event semantic representation. It represents a set of events of swimming which are predicated of some teacher. Finally, (3d) shows exactly what semantic component *-te iru* adds to (3c).[3] As indicated by the down operator, the event of swimming by some teacher is now required to be extensional or to have actually realized.

[3] The co-existence of the existential quantifier $\exists$ and the down operator $^{\vee}$ may seem redundant in the formula (3d). However, in an event semantics, such as the one used by Parsons (1990), there is a formal requirement that all variables be bound by existential closure by the end of the derivation. Since existential closure is a formal necessity, it may not enough to ensure the actual existence of an event or an individual. In contrast, the down operator explicitly requires the extentionality of the variables under its scope. Note that the same kind of redundancy is found in the event semantic representation of a tensed sentence such as *The teacher swam*: $\exists x$[swim'(e) $\wedge$ teacher'(x) $\wedge$ θ(e, x) $\wedge$ PAST(e)]. The event in question obtains in the past although the event variable is formally bound by the existential.

(3) a. sensei-ga oyoi-de iru
teacher-NOM swim-*te* *iru*
'Some teacher is swimming'
b. [[[[sensei-ga oyoi]-de] iru]]
c. (sensei-ga oyoi)* = $\lambda e \exists x$[swim'(e) $\wedge$ teacher'(x) $\wedge$ $\theta(e, x)$]
d. (sensei-ga oyoi-de iru)* = $\lambda e \exists x^{\vee}$[swim'($e$) $\wedge$ teacher'(x) $\wedge$ $\theta(e, x)$]

The examples in (4) involve an achievement verb *iku* (*go*) and thus, its *-te iru* form has a perfective reading as shown in (4a). Although it has a perfective reading, the semantics shown in (4) works exactly the same way as in (3). As shown in (4c), the logical form of *sensei-ga it* (*teacher go*) represents a set of events of going which are predicated of some teacher. Combined with *-te iru*, as shown in (4d), the event of going by some teacher is required to be extensional as indicated by the down operator.

(4) a. sensei-ga it-te iru
teacher-NOM go-*te* *iru*
'Some teacher is gone'
b. [[[[sensei-ga it]-te] iru]]
c. (sensei-ga it)* = $\lambda e \exists x$[go'(e) $\wedge$ teacher'(x) $\wedge$ $\theta(e, x)$]
d. (sensei-ga it-te iru)* = $\lambda e \exists x^{\vee}$[go'($e$) $\wedge$ teacher'(x) $\wedge$ $\theta(e, x)$]

As shown in the examples in (3) and (4), McClure proposes a unified semantics of *-te iru* for progressive and perfective. The general logical representation of *-te iru* is shown in (5) below.

(5) $\lambda e \exists x^{\vee}$[P($e$) $\wedge$ Q(x) $\wedge$ $\theta(e, x)$] (*-te iru*)

Of course, an immediate question is how the apparent difference in meaning between progressive and perfective is drawn out from this unified semantic representation. McClure claims that the interaction between the aspectual properties of verbs and extensionality of the events required by the semantic function of *iru* give rise to the progressive/perfective distinction. An activity event is comprised of a number of homogeneous segments. Therefore, an activity event comes into existence as soon as it starts. At the same time, the *-te iru* form is in non-past. An activity event can be extensional (i.e, realized in the actual world) and non-past at a given moment of time only when the event is in progress. In contrast, an achievement event is instantaneous. Once it is realized, it is over. All that can continue to obtain in the non-past is the result of the achievement. Therefore, the *-te iru* form of an achievement is compatible only with a perfective reading.

3.2. The semantics of experiential *-te iru*

The analysis of experiential *-te iru* that I present here is based on the semantics of progressive and perfective *-te iru* proposed by McClure (2007) that I have just outlined. The logical representation in (6) shows the stage one step earlier in the derivation than McClure indicates in his paper.

(6) $\lambda e \lambda x^{\vee}$[P($e$) $\wedge$ Q(x) $\wedge$ $\theta(e, x)$] (*-te iru*)

There are two variables introduced by lambda operators in (6); one is an individual variable *x* and the other is an event variable *e*. In a standard event representation, it is a formal requirement that all variables are bound by existential closure by the end of the derivation. However, only one variable can be bound at a time. As such, there are two possible orders of existential closure. In other words, the individual variable can be bound first and the event variable the next; or the event variable can be bound first and the individual variable the next. When the individual variable is bound first, we obtain (5), which is repeated as (7) below.

(7) $\lambda e \exists x^{\vee}[P(e) \wedge Q(x) \wedge \theta(e, x)]$

As discussed earlier, (7) represents progressive and perfective *-te iru*. They are sets of events predicated of an individual. In contrast, when the event variable in (6) is bound first, we obtain (8).

(8) $\lambda x \exists e^{\vee}[P(e) \wedge Q(x) \wedge \theta(e, x)]$

The logical form in (8) represents a set of individuals predicated of an event. I propose that this is the semantic representation for experiential *-te iru*. This formalism captures the intuition that experiences are properties of individuals. The logical form in (8) indicates a set of individuals with the existence of some eventive predicate treated as a property of these individuals.

The distinction between (7) and (8) will be clear with examples. The sentence in (9a) has a single semantic representation, but it is ambiguous between progressive and experiential, since there is no context to distinguish between the two. Therefore, (9a) can be interpreted either as (9b) or (9c). The logical forms in (9b) and (9c) both follow from the logical from in (9a). (9b) represents an event of swimming which is predicated of some teacher, which is already realized. This is progressive. The logical form in (9c) represents some teacher that is the agent of some event of swimming, which is already realized. This is experiential. As a result of the different orders of existential closure, (9b) and (9c) have a scope distinction. It is this distinction which is linked to the differences in interpretation.

(9) a. sensei-wa oyoi-de iru
teacher-TOP swim-*te* *iru*
$\lambda e \lambda x^{\vee}$[swim'(*e*) $\wedge$ teacher'(*x*) $\wedge$ θ(*e, x*)]

b. Progressive ('Some teacher is swimming')
$\lambda e \exists x^{\vee}$[swim'(*e*) $\wedge$ teacher'(*x*) $\wedge$ θ(*e, x*)]

c. Experiential ('Some teacher has swum')
$\lambda x \exists e^{\vee}$[swim'(*e*) $\wedge$ teacher'(*x*) $\wedge$ θ(*e, x*)]

3.3. Summary

In this section, the semantics of progressive and perfective *-te iru* by McClure (2007) was introduced first. Both progressive and perfective *-te iru* represent sets of actual events predicated of individuals. The progressive/perfective distinction comes from the interaction between the

aspectual properties of verbs and extensionality of the events required by the semantic function of *iru*. Based on this work, I proposed a semantics which defines experiential *-te iru* as a set of individuals predicated of actual events. In other words, in the experiential construction, an eventive predicate is treated as a property of a given individual. Essentially, the formal distinction between progressive/perfective *-te iru* and experiential *-te iru* comes from the different order of existential closure in the derivation. For progressive and perfective *-te iru*, the individual variable is bound first; for experiential *-te iru*, the event variable is bound first.

4. Experiential *-te iru* and Individual-Level Predicates

4.1. Individual-Level Predicates

Individual-Level Predicates (Carlson, 1977) or ILPs refer to those predicates that denote permanent properties of individuals. Examples of ILPs are *be tall* and *be smart*. Individual-Level Predicates are contrasted with Stage-Level Predicates (SLPs). SLPs denote temporal properties. Most SLPs are non-stative predicates such as *run* and *eat*, but there are several stative predicates such as *be sick*. It is also known that some predicates can be ambiguous between Individual-Level or Stage-Level, such as *be available* (Diesing, 1992). While the source of the difference between ILPs and SLPs is widely discussed, perhaps the best known semantic claim is found in Kratzer (1995): SLPs have an event variable in their representation while ILPs do not. This difference captures the intuition that ILPs are properties of individuals while SLPs are not.

In the semantics of experiential *-te iru* that I proposed in the previous section, the individual variable has wide scope. This captures the intuition that having an experience is a property of an individual. The fact of having an experience is a permanent property of a given individual. As predicates of individuals, experiential *-te iru* sentences seem to parallel ILPs. In what follows, I present three pieces of evidence that indeed support this idea.

4.2. Permanency

First of all, both an ILP and an experiential *-te iru* sentence denote **permanent** properties of individuals. Thus, neither one of them can be modified by an adverbial phrase such as *itijiteki-ni* (*temporarily*), as shown in (10).

(10) a. ILP

#Mari-wa	itijiteki-ni	se-ga	takai[4]
Mari-TOP	temporarily	height-NOM	tall

'Mari is temporarily tall'

b. Experiential *-te iru* (with an activity predicate)

#Mari-wa	itijiteki-ni	ima	made-ni	kono	kawa-de	oyoi-de	iru
Mari-TOP	temporarily	now	up.to-LOC	this	river-LOC	swim-*te*	*iru*

'Mari temporarily has swum in this river up to now'

[4] The notation "#" is used to indicate that the sentence is syntactically well-formed but semantically ill-formed.

c. Experiential *-te iru* (with an achievement predicate)
#Mari-wa itijiteki-ni ima made-ni igirisu-ni it-te iru
Mari-TOP temporarily now up.to-LOC England-LOC go-*te* *iru*
'Mari temporarily has been to England up to now'

Permanency of an ILP is essentially the definition of an ILP, so (10a) does not require any further comments. As for experiential *-te iru*, it is not possible to have an experience temporarily either. Once somebody has an experience, that experience will stay with that individual forever.

In contrast, it is possible to use the adverbial phrase *itijiteki-ni* (*temporarily*) with progressive and perfective sentences, as shown in (11).

(11) a. Progressive *-te iru*
Mari-wa itijiteki-ni ima oyoi-de iru
Mari-TOP temporarily now swim-*te* *iru*
'Mari is temporarily swimming now'

b. Perfective *-te iru*
Mari-wa itijiteki-ni ima igirisu-ni it-te iru
Mari-TOP temporarily now England-LOC go-*te* *iru*
'Mari is temporarily in England now'

The contrast between (10) and (11) show that an ILP and an experiential sentence share the property of permanency, which is absent in progressive and perfective *-te iru*.

4.3. Interpretations of *-wa* & *-ga*

The second parallel between an ILP and an experiential *-te iru* concerns the interpretation of the particles *-wa* and *-ga*. As pointed out by Kuroda (1965), when the particle *-ga* is attached to the subject of an ILP, the exhaustive list reading is required; in contrast, the use of *-wa* requires the topic reading. Examples are shown in (12).

(12) ILP
a. Mari-**wa** se-ga takai
Mari-***wa*** height-NOM tall
'Mari is tall' (**topic *-wa* reading**)
b. Mari-**ga** se-ga takai
Mari-***ga*** height-NOM tall
'Mari is the one that is tall' (**exhaustive *-ga* reading**)

The topic *-wa* reading exemplified in (12a) provides a neutral reading. In contrast, in the exhaustive *-ga* reading exemplified in (12b), a focus is put on the subject *Mari*. An important point here is that the exhaustive *-ga* reading is the default reading. It obtains without any context such as a special intonation or a conversational background.

The same interpretation pattern obtains with experiential *-te iru* statements as shown in (13) and (14).

(13) Experiential *-te iru* (with an activity predicate)

a. Mari-**wa** ima made-ni kono kawa-de oyoi-de iru
Mari-***wa*** now up.to-LOC this river-LOC swim-*te* *iru*
'Mari has swum in this river up to now' (**topic *-wa* reading**)

b. Mari-**ga** ima made-ni kono kawa-de oyoi-de iru
Mari-***ga*** now up.to-LOC this river-LOC swim-*te* *iru*
'Mari is the one that has swum in this river up to now' (**exhaustive *-ga* reading**)

(14) Experiential *-te iru* (with an achievement predicate)

a. Mari-**wa** ima made-ni igirisu-ni it-te iru
Mari-***wa*** now up.to-LOC England-LOC go-*te* *iru*
'Mari has been to England up to now' (**topic *-wa* reading**)

b. Mari-**ga** ima made-ni igirisu-ni it-te iru
Mari-***ga*** now up.to-LOC England-LOC go-*te* *iru*
'Mari is the one that has been to England up to now' (**exhaustive *-ga* reading**)

Just as in the ILP examples, the use of *-wa* in experiential statements requires the topic *-wa* reading, while the use of *-ga* requires the exhaustive *-ga* reading. Again, the exhaustive *-ga* reading obtains without any special context.

In contrast, the topic *-wa* & exhaustive *-ga* pattern does not obtain with progressive or perfective *-te iru* statements as shown in (15) and (16).

(15) Progressive *-te iru*[5]

a. Mari-**wa** ima oyoi-de iru
Mari-***wa*** now swim-*te* *iru*
'Mari is swimming now' (**topic *-wa* reading**)

b. Mari-**ga** ima oyoi-de iru
Mari-***ga*** now swim-*te* *iru*
'Mari is swimming now' (**descriptive *-ga* reading**)

(16) Perfective *-te iru*

a. Mari-**wa** ima igirisu-ni it-te iru
Mari-***wa*** now England-LOC go-*te* *iru*
'Mari is in England now' (**topic *-wa* reading**)

b. Mari-**ga** ima igirisu-ni it-te iru
Mari-***ga*** now England-LOC go-*te* *iru*
'Mari is in England now' (**descriptive *-ga* reading**)

[5] The distinction between the topic *-wa* reading and the descriptive *-ga* reading is not reflected in the English translations in (15) or in (16). See Kuno (1973) for the pragmatic distinction between the two. Also, in Fiengo & McClure (2002), the speech acts of *-wa* and *-ga* is discussed.

Although the topic *-wa* reading obtains for progressive and perfective *-te iru* (just as with an ILP and an experiential statement), the use of *-ga* results in the descriptive reading. It is in fact possible to put a focus on *Mari* in (15b) and (16b). However, in order to do so, an extra context such as a special intonation or a conversational background is required. Unlike an ILP and an experiential *-te iru* statement, the exhaustive *-ga* reading does not obtain without a special context.

4.4. Temporal adverbials

The third piece of evidence that experiential *-te iru* parallels an ILP is related to the claim made by Kratzer (1995), which is that, ILPs cannot be modified by temporal adverbials. For example, the use of a temporal adverbial such as *kyonen* (*last year*) with an ILP such as *se-ga takai* (*be tall*) yields oddity.

(17) ILP
#Mari-wa kyonen se-ga takakat.ta
Mari-TOP last.year height-NOM tall.PAST
'Mari was tall last year'

If a past adverbial is used with an experiential *-te iru*, we see no tense agreement as shown in (18). The *-te iru* form remains in present tense even with the presence of the past adverbial, *kyonen* (*last year*).

(18) a. Experiential *-te iru* (with an activity predicate)
Mari-wa kyonen kono kawa-de oyoi-de iru
Mari-TOP last.year this river-LOC swim-*te* *iru*.PRESENT
'Mari has an experience of swimming in this river last year'

b. Experiential *-te iru* (with an achievement predicate)
Mari-wa kyonen igirisu-ni it-te iru
Mari-TOP last.year England-LOC go-*te* *iru*.PRESENT
'Mari has an experience of going to England last year'

Interestingly, if there is tense agreement, the sentence has to be either progressive or perfective as shown in (19).[6]

[6] It is in fact possible to produce an experiential *-te iru* sentence in past tense. In such a case, an experience of an individual *as of some point in the past* is expressed. An explicit modifier such as *kyonen-no jiten-de* (*as of last year*) is probably preferred in a past tense experiential sentence. Therefore, I believe that the examples in (19) are unambiguously progressive and perfective because the simple modifier *kyonen* (*last year*) is used. At least, it is safe to say that the default/preferred readings of (19) are progressive and perfective.

See the example below for a past tense experiential *-te iru*.

(1) Mari-wa kyonen-no jiten-de san kai igirisu-ni it-te ita
Mari-TOP last.year-GEN point-LOC three time England-LOC go-*te* *iru*.PAST
'As of last year, Mari had an experience of going to England three times'

(19) a. Progressive *-te iru*

Mari-wa	kyonen	kono	kawa-de	oyoi-de	ita
Mari-TOP	last.year	this	river-LOC	swim-*te*	*ita*.PAST

'Mari was swimming in this river last year'

b. Perfective *-te iru*

Mari-wa	kyonen	igirisu-ni	it-te	ita
Mari-TOP	last.year	England-LOC	go-*te*	*ita*.PAST

'Mari was in England last year'

We see that (18a) and (19a) are identical except for the tense of *iru*. Likewise, the only difference between (18b) and (19b) is the tense of *iru*. This past-tense marking makes (19a) unambiguously progressive, and (19b) unambiguously perfective.

4.5. Summary

In this section, I presented three pieces of evidence that show the parallel between ILPs and experiential *-te iru* sentences. The properties shared by ILPs and experiential *-te iru* sentences are: 1) permanency; 2) the topic *-wa* & the exhaustive *-ga* interpretations; and 3) incompatibility with temporal adverbials. Importantly, these properties are not shared by progressive or perfective sentences. The parallel between ILPs and experiential *-te iru* supports the formal claim made in the section 3 that experiential *-te iru* forms are predicates of individuals.

Interestingly, *-te iru* never attaches to an ILP. This in turn means that every experiential *-te iru* form contains an SLP. Nevertheless, an experiential sentence always has the properties of an ILP. For example, predicates such as *oyogu* (*swim*) and *iku* (*go*) are SLPs, but when they are used with experiential *-te iru*, the resulting whole sentences have properties of ILPs.

5. Individual-Level Construction

5.1. Logical representations of ILP, SLP, and ILC

Following Kratzer (1995), the typical logical representation for an ILP completely lacks an event argument, whereas the logical representation for an SLP has an event argument. Furthermore, following Parsons (1990), the event argument of an SLP takes wide scope over individual arguments. These representations of ILPs and SLPs are illustrated in (20a) and (20b).

(20) a. ILP: $\exists x$

b. SLP: $\exists e \exists x$

It is common to use a past experiential sentence such as (1) to contrast the quantity of experience that may change over time. For example, (1) can be followed by a statement such as (2).

(2)

sikasi	ima-no	jiten-de-wa	go	kai	it-te	iru
but	now-GEN	point-LOC-CNTRST	five	time	go-*te*	*iru*.PRESENT

'But as of now, she has an experience of going to England five times'

With the analysis of experiential *-te iru* presented in this paper, I argue for the existence of an additional logical representation for an ILP. In fact, precisely speaking, it is not an Individual-Level Predicate; it is an Individual-Level Construction (ILC). As shown in (21), an event argument is present in the representation of an ILC. However, since the individual argument takes wide scope, it still represents a predicate of individuals. Therefore, it actually parallels the representation of an ILP. The event argument, in turn, takes narrow scope.

(21) ILC: $\exists x \exists e$

In what follows, I will justify the existence of an event argument in an ILC. Furthermore, I will show that this event argument takes narrow scope.

5.2. Event argument in ILC

An earlier example in (18a) is repeated as (22) below.

(22) Experiential *-te iru* (with an activity predicate)

Mari-wa	kyonen	kono	kawa-de	oyoi-de	iru
Mari-TOP	last.year	this	river-LOC	swim-*te*	*iru*.PRESENT

'Mari has an experience of swimming in this river last year'

The point of this example was to show that the sentence is marked present tense even with the presence of past modifier *kyonen* (*last year*). There is an apparent contradiction between the meaning of the modifier and the tense of the sentence. In fact however, what *kyonen* (*last year*) modifies here is the event of swimming. Thus, *kyonen* (*last year*) in this sentence does not function as a sentential modifier. Rather, it modifies the event within the sentence This supports the representation in (21), where the event argument takes narrow scope.

Consider another set of earlier examples in (10) repeated as (23) below.

(23) a. ILP

#Mari-wa	itijiteki-ni	se-ga	takai
Mari-TOP	temporarily	height-NOM	tall

'Mari is temporarily tall'

b. Experiential *-te iru* (with an activity predicate)

#Mari-wa	itijiteki-ni	ima	made-ni	kono	kawa-de	oyoi-de	iru
Mari-TOP	temporarily	now	up.to-LOC	this	river-LOC	swim-*te*	*iru*

'Mari temporarily has swum in this river up to now'

c. Experiential *-te iru* (with an achievement predicate)

#Mari-wa	itijiteki-ni	ima	made-ni	igirisu-ni	it-te	iru
Mari-TOP	temporarily	now	up.to-LOC	England-LOC	go-*te*	*iru*

'Mari temporarily has been to England up to now'

The reason that the examples in (23) are odd is that the meaning of *itijiteki-ni* (*temporarily*) is contradictory to the permanent property of an ILP and an experience. Note that for experiential sentences in (23b) and (23c), the modifier *itijiteki-ni* (*temporarily*) is used as a sentential modifier. If the modifier is moved lower, as shown in (24), the sentences become fine.

(24) a. Experiential *-te iru* (with an activity predicate)

Mari-wa	ima	made-ni	kono	kawa-de	itijiteki-ni	oyoi-de	iru
Mari-TOP	now	up.to-LOC	this	river-LOC	temporarily	swim-*te*	*iru*

'Mari has swum in this river temporarily up to now'

b. Experiential *-te iru* (with an achievement predicate)

Mari-wa	ima	made-ni	igirisu-ni	itijiteki-ni	it-te	iru
Mari-TOP	now	up.to-LOC	England-LOC	temporarily	go-*te*	*iru*

'Mari has been to England temporarily up to now'

There is nothing wrong with saying that somebody has an experience of going-to-England-temporarily, whereas it is completely odd to say that somebody temporarily has-an-experience-of-going-to-England. Here, we observe the contrast in scope. When a modifier such as *itijiteki-ni* (*temporarily*) takes wide scope, the sentence does not make sense, but when it takes narrow scope the sentence makes perfect sense because now it can modify an event argument, which has temporal properties. This contrast tells us that the event argument in fact exists in experiential *-te iru*. Furthermore, it takes narrow scope.

On the other hand, (23a) is hopeless. There is nothing we can do to this sentence to save it. Moving the modifier *itijiteki-ni* (*temporarily*) around does not help. This confirms that there is no event argument in an ILP.

5.3. Summary

In this section, a logical representation of an Individual-Level Construction (ILC) is proposed as an extension of the analysis of experiential *-te iru* presented in this paper. Unlike the logical representation of an ILP, the event argument is present in the representation of an ILC. However, unlike in the representation of an SLP, the event argument takes narrow scope. As such, an ILC represents a set of individuals just like an ILP. The proposed logical representation should apply to any ILC including the Japanese experiential *-te iru*.

6. Closing remarks

Finally, I would like to comment on a few points regarding the general implications of this paper.

First, this paper shows that there exists at least one Individual-Level Construction. I believe that the evidence given here supports the idea that being an Individual-Level or Stage-Level does not have to be a property of an individual lexical item.

Second, although the experiential *-te iru* form is a construction unique to the Japanese language, an experiential statement is not. For example, the English *have + past participle* provides an experiential reading as well as a perfective reading. *John has gone to England* can mean that John has been to England in the past or that he is in England now. If the arguments presented in this paper are correct, I would suggest that the experiential reading of the English

have + past participle can be also represented by $\exists x \exists e[\ldots]$. The content of [...] is unknown because the semantics of *have* is apparently different from *-te iru*, and it is beyond the scope of this paper. Still, I would like to extend the claim in this paper and say that any sentence with an experiential reading is represented as a set of individuals predicated of an event. This is because an experience is a permanent property of an individual. The particles *-wa* and *-ga* are unique to the Japanese language, and a past modifier may not be observed in a present tense experiential sentence in other languages.[7] Nevertheless, we may be able to find some other evidence to show the parallel between experiential sentences and ILPs. I will leave this to future investigation.

Third, the logical representation for an ILC proposed in this paper may not be unique to experiential sentences. There may be other types of sentences that represent sets of individuals predicated of events. Just as with experiential *-te iru*, we would expect that such constructions would take an SLP and produce an Individual-Level Sentence. Such a possibility must be kept in mind when investigating and characterizing the differences between individual-level and stage-level predication.

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[7] Heidi Harley (p.c.) informed me that unlike Japanese, an English experiential sentence has to be marked past tense when a past modifier such as *last year* is used. However, she also informed me that in German, an experiential sentence can be marked non-past even with the presence of a past modifier, just as in Japanese.

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