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Author(s)	Ito, Chizuru
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THE SYNTAX OF QUASI-EXISTENTIAL CONSTRUCTION IN JAPANESE: COMPLEX PREDICATES AND ARGUMENT STRUCTURE*

1 INTRODUCTION

This paper deals with some unusual facts regarding the aspectual form *te-i(ru)* in Japanese. The *te-i(ru)* form consists of a gerund *te-* and an auxiliary *i(ru)* whose original meaning was ‘exist’. I am concerned with a construction with a *te-i(ru)* form in which some argument is marked by a non-canonical case given its thematic role and grammatical function.

1.1 What is the QEC?

In Japanese, a subject NP is normally case-marked by the nominative case *ga* whereas an object NP is case-marked by the accusative case *o*, as shown in (1).

- (1) a. Ken-ga ringo-o tebe-ru.
Ken-NOM apple-ACC eat-PRES
‘Ken eats apples.’
b. Ken-ga ringo-o ur-u.
Ken-NOM apple-ACC sell-PRES
‘Ken eats apples.’

Alternative case markers are thus unacceptable. The theme/patient of a transitive verb (*ringo* ‘apple’) cannot be case-marked by the nominative case, as in (2).

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- (2) *Ringo-ga tabe-ru.
 Ring-NOM eat-PRES
 ‘(Intended) They eat apples/ Apples are eaten.’

With the aspectual *te-iru* form (which I gloss just as TEIRU for what I will show later are two different uses), the agent NP is still marked by nominative and the theme/patient NP by accusative, in the case of the verb *taberu* ‘eat’, as shown in (3a). Here I call the canonical aspectual sentence *the Aspectual Auxiliary Construction*. Alternative case-marking (i.e. theme with nominative case) as in (3b) is not grammatical.

- (3) a. Ken-ga ringo-o tabe-teiru.
 Ken-NOM apple-ACC eat-TEIRU
 ‘Ken is eating apples.’
 b. *Ringo-ga tabe-teiru.
 apple-NOM eat-TEIRU
 ‘(Intended) Apples re eaten.’

When a transitive verb like *uru* takes the aspectual *te-iru* form, however, the theme argument of the verb can be marked by either accusative or nominative case, as shown in (4).

- (4) a. Ringo-o ur-teiru.
 apple-ACC sell-TEIRU
 ‘(They) are selling apples.’
 b. Ringo-ga ur-teiru.
 Apple-NOM sell-TEIRU
 ‘Apples are for sale.’

This sharply contrasts with the examples with the same verb without *teiru*, as in (5), where only accusative case is possible.

- (5) a. Ringo-o ur-u.
 apple-ACC sell-PRES
 ‘They (sell) apples.’
 b. *Ringo-ga ur-u.
 apple-NOM sell-PRES
 ‘(Intended) Apples sell.’

As the translations show, example (4a) with the accusative NP (*ringo-o*) sounds elliptical; the logical subject is felt to be missing, whereas (4b) with the nominative NP (*ringo-ga*) does not. Intuitively, the interrelation (4b) carries is similar to a passive like (6).

- (6) Ringo-ga u-rare-teiru.
 Apple-NOM sell-PASS-TEIRU
 ‘Apples are sold.’

Yet, there is a crucial difference between (4b) and (6). While the verb form in the passive example (6) has the passive morpheme *-rare*, the one in (4b) does not involve any suffixes on the verb stem. It is well-known that in the presence of passive morphology the theme argument is expressed as the subject. In contrast, it is generally claimed that the aspectual form (i.e. *te-i(ru)* form) does not allow the theme to be marked by nominative, as shown in (3). Sentence (4b) is exceptional. Moreover, the passive sentence (6) and (4b) differ in agentivity (as discussed in Section 2.2.1).

To the best of my knowledge, these phenomena have escaped attention and hence have never been discussed in the literature. The primary goals of this paper are to elucidate a number of peculiar syntactic properties of *ur-te-i(ru)* in (4b) in detail and to show they follow from the status of the existential verb in a complex predicate structure. To anticipate the analysis proposed in this paper, I will term (4b) *the Quasi-Existential Construction* (henceforth, QEC). As I will show later, there is a restricted set of verbs that can participate in the QEC, as illustrated in (7).

- (7) *uru* ‘sell’, *hanbai-suru* ‘sell’, *yasu-uri-suru* ‘undersell’, *mae-uri-suru* ‘sell in advance’, *uri-dasu* ‘release’, *kasu* ‘lend’, *rentaru-suru* ‘rent’, *uri-hazimeru* ‘begin to sell’, *zyouei-suru* ‘show’, *zyouen-suru* ‘suru’, *yaru* ‘give/show’, *oku* ‘put’, *kazaru* ‘decorate’, *simau* ‘keep’, *haru* ‘post’, *keizi-suru* ‘post’, *kaku* ‘write’

1.2 Some Background

In order to make clear how peculiar the QEC is, let me give a more detailed overview of the basics of case-marking in Japanese. The general case frame of transitive predicates in Japanese is as follows: subjects are marked by the nominative case *ga* and objects marked by the accusative case *o*, i.e. a NOM-ACC case pattern. There are also case alternation phenomena in Japanese. Such instances include: transitive-intransitive alternation, middle formation, potential alternation, and passive formation. In this section, I examine each of these and show that case alternations in Japanese always involve a morphological change in the verb. As I noted above, in the QEC, the theme argument is marked by the nominative case without any suffix attached to the verb form. Thus, this makes the QEC an exceptional phenomenon.

In English, verbs with transitive and intransitive uses show the same morphological form.

- (8) a. John broke the vase.
 b. The vase broke.

Unlike in English, Japanese transitive-intransitive alternations always involve morphological changes. Jacobsen (1992) identifies sixteen different patterns classified according to the derivational affixes they involve. His sixteen patterns can be divided into three major types:

- (9) (A) [TRANSITIVE: no affix] vs. [INTRANSITIVE: $-\alpha$]
 (B) [TRANSITIVE: $-\alpha$] vs. [INTRANSITIVE: $-\beta$]
 (C) [TRANSITIVE: $-\alpha$] vs. [INTRANSITIVE: no affix]

The $-\alpha$ and $-\beta$ in (9) indicates that a specific morpheme is suffixed to the verb, and it varies according to Jacobsen's categories. Here I present examples of the three major patterns. The first pattern (A) is that the transitive verb *war* 'break_{tr}' has no suffix as in (10a), while the intransitive counterpart (*war-e* 'break_{in}') bears a suffix, such as the $-e$ suffix in (10b).

- (10) [TRANSITIVE: no affix] vs. [INTRANSITIVE: $-e$]
 a. Ken-ga kabin-o war-ta.
 Ken-NOM vase-ACC break-PAST
 'Ken broke the vase.'
 b. Kabin-ga war-e-ta.
 Vase-NOM break-INTR-PAST
 'The vase broke.'

Such a morphological change also causes a change in case marking. In the transitive construction in (10b), the theme/patient argument (e.g. *kabin* 'vase') is marked with accusative *o*. In the intransitive construction in (10b), the theme/patient argument is marked with nominative *ga*. The transitive verb form *war-* 'break' cannot be used as an intransitive verb as shown in (11a), with nominative case assigned to the theme/patient. Likewise, the intransitive form *war-e* 'break-INTR' like (11b) does not allow the theme/patient to be marked by the accusative case.

- (11) a. *Kabin-ga war-ta.
 vase-NOM break_{tr}-PAST
 '(Intended) (They) broke the vase.'
 b. *Kabin-o war-e-ta.
 vase-ACC break-INTR-PAST
 '(Intended) The vase broke.'

In the second pattern (B), both the transitive verb take suffixes, but the suffixes are distinct. In (12), the verb stem *kobo* 'spill' with the suffix $-s$ forms a transitive verb, whereas the stem with the suffix $-re$ forms an intransitive verb. The transitive verb *kobo-s-* does not license the nominative theme as in (13a) and likewise the intransitive counterpart *kobo-re* 'spill-INTR' does not allow the theme/patient to be marked by the

accusative as in (13b).

- (12) [TRANSITIVE: *-s*] vs. [INTRANSITIVE: *-re*]
 a. Naomi-ga mizu-o kobo-s-u.
 Naomi-NOM water-ACC spill-TR-PRES
 ‘Naomi spills the water.’
 b. Mizu-ga kobo-re-ru.
 water-NOM spill-INTR-PRES
 ‘The water spills.’
- (13) a. *Mizu-ga kobo-s-u.
 water-NOM spill-TR-PRES
 ‘(Intended) (They) spill the water.’
 b. *Mizu-o kobo-re-ru.
 Water-ACC spill-INTR-PRES
 ‘(Intended) The water spills.’

The third pattern (C) shows the suffix on the transitive verb and no suffix on the intransitive verb, as illustrated in (14). Again, (15) illustrates that reverse transitivity is ungrammatical.

- (14) [TRANSITIVE: *-se*] vs. [INTRANSITIVE: no affix]
 a. Naomi-ga Ken-o takusii-ni no-se-ru.
 Naomi-NOM Ken-ACC taxi-to get.on-TR-PRES
 ‘Naomi gets Ken into the taxi.’
 b. Ken-ga takusii-ni no-ru.
 Ken-NOM taxi-to get.on-PRES
 ‘Ken gets on the taxi.’
- (15) a. *Ken-ga takusii-ni no-se-ru.
 Ken-NOM taxi-to get.on-TR-PRES
 ‘(Intended) (They) get Ken into the taxi.’
 b. *Ken-o takusii-ni no-ru.
 Ken-ACC taxi-to get.on-PRES
 ‘(Intended) Ken gets on the taxi.’

It is important to reiterate that in Japanese, there are no transitive/intransitive pairs that use the same suffixes in both forms: [TRANSITIVE: no suffix] vs. [INTRANSITIVE: no suffix] or [TRANSITIVE: *-α*] vs. [INTRANSITIVE: *-α*]. In other words, all the transitive/intransitive pairs involve some morphological marker on at least one verb form and never the same suffix on both forms.

Now let me turn to passives. The passive form in English has the *-en* suffix or one of its allomorphs attached to the verb as in (16b).

- (16) a. They sell Japanese cars.
 b. Japanese cars are sold.

Japanese verbs are obligatorily marked with the suffix *-(r)are* as in (17b). Again, the theme/patient argument receives nominative case marking. Without the passive suffix, the verb form with a nominative-marked theme, as in (18), is ill-formed.

- (17) a. Ken-ga nihonsya-o ur-ta.
 Ken-NOM Japanese-car-ACC sell-PAST
 ‘Ken sold Japanese cars.’
 b. Nihonsya-ga ur-are-ta.
 Japanese-car-NOM sell-PASS-PAST
 ‘Japanese cars were sold.’

- (18) *Nihonsya-ga ur-ta.
 Japanese-car-NOM sell-PAST
 ‘(Intended) Japanese cars were sold.’

Another construction in which the theme can be marked with the nominative case is the potential construction. The theme of the verb *hanas*-‘speak’, *nihongo* ‘Japanese’, must be marked with accusative case in (19b). In contrast, the addition of the potential *-e* suffix makes it possible for the theme to receive nominative case marking, as shown in (19b). (See Shibatani 2001 for discussion of potential constructions.)

- (19) a. Naomi-ga nihongo-o/*ga hana-s-u.
 Naomi-NOM Japanese-ACC/NOM speak-TR-PRES
 ‘Naomi speaks Japanese.’
 b. Naomi-ga nihongo-o/ga hana-s-e-ru.
 Naomi-NOM Japanese-ACC/NOM speak-TR-can-PRES
 ‘Naomi can speak Japanese.’

A word about middles is in order here. Consider English middles first. Like the transitive/intransitive alternation in (8), English middles do not show morphological mark to distinguish it from the canonical transitive form, as shown in (20).

- (20) a. I read this book.
 b. This book reads well.

In Japanese, it is not crystal clear whether middles exist as a distinct construction. We leave the issue open here (cf. Kageyama 2003 for some relevant discussion of Japanese middles). What might look like middles uses the same morpheme as the potential morpheme *-e* in (19b). Given the semantic interpretation of English middles (20b), (21a) might be considered to be a Japanese middle sentence because it has a property reading. However, the resultant form is indistinguishable from the intransitive form in (21b) and the potential form in (21c).

- (21) a. Kono kusuri-ga yoku ur-e-ru.
 This medicine-NOM well sell-INTR-PRES
 ‘This medicine sells well.’
 b. Kinoo atarasii kusuri-ga ure-nakat-ta.
 yesterday new medicine-NOM sell-INTR-NEG-PAST
 ‘The new medicine didn’t get sold yesterday.’
 c. Nihonde-wa kyoka-naku kusuri-ga ur-e-na-i.
 Japan-LOC-TOP permission-without medicine-NOM sell-can-NEG-PRES
 ‘In Japan, medicine cannot be sold without permission.’

In the absence of an explicit definition of middles, I will not consider them further in this paper. But what is important here is the fact that case alternations involve a suffixed verb form.

To summarize, a case alternation on the theme correlates with a morphological change to the verb in Japanese. In the case of the transitive-intransitive alternation, intransitive and transitive verbs take different suffixes. Likewise, the passive and the potential constructions are accompanied by a suffix on the verb and assign the theme argument nominative case. This is in a sharp contrast with the QEC where the theme argument receives nominative case without any morphological change in the verb form.

The organization of the paper is as follows. Section 2 demonstrates that the QEC shows some crucial properties of existential constructions, in contrast to the aspectual auxiliary construction that uses the same auxiliary verb *i(ru)* and then examines various other syntactic characteristics of the QEC: the lack of agent/goal and the licensing of the entity-denoting locative *ni* and aspectual restrictions. Section 3 discusses my theoretical proposals for the QEC. I show that the QEC is essentially an existential complex predicate construction headed by the existential verb *i(ru)* and establish that the theme argument is the grammatical subject. Then I introduce a theory of argument unification in which the argument structure of V_1 is unified with that of V_2 , the existential verb. I further show that this mechanism extends to complex predicates in general. Section 4 concludes this paper.

2 THE QUASI-EXISTENTIAL CONSTRUCTION

As I showed in the introduction, the Quasi-Existential Construction (QEC) in Japanese shows peculiar properties in the sense that the transitive verb *ur(u)* ‘sell’ exhibits a case alternation without any concomitant change in morphological form. When this verb is in the *te-i(ru)* form, the theme argument can be case-marked by the nominative like *ringo* ‘apple’ as in (22a), without any change in verbal morphology. This contrasts with the aspectual auxiliary construction with the same verb suffixed by *te-iru* form, as shown in (22b). Hereafter, I gloss the *te-i(ru)* as GER-exist-PRES in the QEC for reasons which will become clearer later, and as GER-AUX-PRES in the aspectual auxiliary construction.

- (22) a. Ringo-ga ur-te-iru-yo.
 apple-NOM sell-GER-exist-PRES-VOC
 ‘Apples are for sale.’
 b. Ringo-o ur-te-i-ru-yo.
 Apple-ACC sell-GER-AUX-PRES-VOC
 ‘(They) are selling apples.’

As shown here, the example of the QEC in (22a) is indistinguishable on the surface from the aspectual auxiliary construction in (22b) except for the case-marking. The nominative case-marking of the theme argument is impossible without the verb *i(ru)*.

- (23) a. Ringo-o ur-u.
 apple-ACC sell-PRES
 ‘(They) sell apples.’
 b. *Ringo-ga ur-u.
 apple-NOM sell-PRES
 ‘(Intended) Apples are for sale.’

Therefore, it appears that the verb *i(ru)* plays a crucial role in licensing the case alternation. As I will show, although the verb *i(ru)* here has been considered just an aspectual auxiliary, I argue that it is originally the existential verb *i(ru)* in the QEC. It looks similar to the aspectual auxiliary *i(ru)*, but in fact it is different from it in important ways. To better understand the peculiarities of the QEC, in this section, I begin by giving an overview of the general properties of the existential verbs *i(ru)* and *ar(u)* and their uses as aspectual auxiliary verbs *V-te-i(ru)* and *V-te-ar(u)*. Then I contrast the QEC with those constructions and other constructions (i.e. the aspectual auxiliary construction, the passive, and the intransitive construction) and reveal significant syntactic differences.

2.1 Existential Verbs and Aspectual Verbs

Japanese has two kinds of existential verbs: *i(ru)* and *ar(u)*. The main difference between these existential verbs in contemporary Japanese is, roughly speaking, that animate subjects select *i(ru)* as in (24a) and inanimate subjects select *ar(u)* as in (24b).¹ As illustrated in (25), the verb *i(ru)* ‘exist_{anim}’ cannot occur with an inanimate subject like *tukue* ‘desk’. The verb *ar(u)* ‘exist_{inan}’, on the other hand, cannot take an animate subject like *kodomo* ‘children’. I will return to diachronic change in the

¹ It has been observed that *i(ru)* and *ar(u)* can express “locative-existential” and “possessive” meanings (Kuno 1973, Shibatani 1978, Teramura 1982, Masuoka and Takubo 1992, Kishimoto 2000, and Kinsui 2006). In either use, the verbs (i.e. *i(ru)* and *ar(u)*) must agree with the subject or the object in animacy. Leaving aside the possessive use of these verbs, which seems irrelevant here, I use the term “existential verb” to refer to the verbs *i(ru)* and *ar(u)* in locative-existential sentences.

existential verb system and animacy in Section 3.6.

- (24) a. Heya-ni kodomo-ga i-ru.
room-LOC children-NOM exist_{anim}-PRES
'There are children in the room.'
b. Heya-ni tukue-ga ar-u.
room-LOC desk-NOM exist_{inan}-PRES
'There are desks in the room.'
- (25) a. *Heya-ni tukue-ga i-ru.
room-LOC desk-NOM exist_{anim}-PRES
'There are desks in the room.'
b. Heya-ni kodomo-ga ar-u.
room-LOC children-NOM exist_{inan}-PRES
'There are children in the room.'

In addition to their uses as existential verbs, *i(ru)* and *ar(u)* have grammaticalized into aspectual auxiliaries. When *i(ru)* follows a verb with the gerund morpheme *-te*, it indicates (i) progressive as in (26a), (ii) perfective as in (26b), and (iii) experiential as in (26c) (see also Martin 1975, Jacobsen 1992, Kudo 1995, Mihara 1997, Ogihara 1998, and Sirai 2000 for *V-te-i(ru)* constructions).

- (26) a. Ken-ga odor-te-i-ru.
Ken-NOM dance-GER-AUX-PRES
'Ken is dancing' (progressive)
b. Mado-ga war-e-te-i-ru.
window-NOM break-INTR-GER-AUX-PRES
'The window is broken.' (perfective)
c. Naomi-ga ichido rikonsi-te-i-ru.
Naomi-NOM once divorce-GER-AUX-PRES
'Naomi has divorced before.' (experiential)

On the other hand, the verb *ar(u)* as an aspectual auxiliary expresses (i) anticipatory as in (27a), (ii) resultative as in (27b), and (iii) experiential as in (27c), according to Martin (1975) (see also Teramura 1982, Miyagawa 1989a).²

- (27) a. Ken-wa infuruenza-no-yobousesyu-o ur-te-a-ru.
Ken-TOP influenza-GEN-immunization-ACC shoot-GER-AUX-PRES
'Ken got vaccinated against influenza.' (anticipatory)

² It seems that the "perfective" meaning in the *te-i(ru)* form and the "resultative" meaning in the *te-a(ru)* form are the same. Since all the literature that I have seen uses distinct terms for them, I just follow this terminology here and do not discuss any differences between "perfective" in the *te-i(ru)* form and "resultative" in the *te-a(ru)* form. As for the terminology, perfective is sometime used for what I call "experiential" here (cf. Kudo 1995, Shirai 2000). Yet the semantic differences as well as the terminology are immaterial in this paper.

- b. Arayuru keesu-o keisansi-te-a-ru.
 all case-ACC calculate-GER-AUX-PRES
 ‘All eventualities have been taken into account.’ (resultative)
- c. Sudeni kono-mondai-o toi-te-a-ru to Newton-wa
 already this-problem-ACC solve-GER-AUX-PRES that Newton-TOP
 it-ta.
 say-PAST
 ‘Newton said that he had already worked out this problem.’
 (experiential)

There are reasons to think that the uses of *i(ru)* and *ar(u)* as in (26) and (27) are grammaticalized. First, unlike their existential uses, they do not indicate physical existence anymore. The examples in (28) do not describe the existence of the noun *fairu* ‘file’ at some location. Rather, they describe the state of the file: it is missing or is deleted. As is obvious from the term ‘aspectual form’ for the *te-i(ru)* form and the *te-a(ru)* form, *i(ru)* and *ar(u)*, have aspectual functions, i.e. they express *perfective* or *resultative* meaning, as shown in (28).

- (28) a. Zyuuyouna fairu-ga kie-te-i-ta.
 important file-NOM disappear-GER-AUX-PAST
 ‘The important file is gone.’ (perfective)
- b. Zyuuyouna fairu-o kesi-te-ar-ta.
 important file-NOM delete-GER-AUX-PAST
 ‘The important file is deleted (by someone).’ (resultative)

Second, as auxiliaries, they have lost the animacy distinctions described above. The aspectual auxiliary *i(ru)* does not require an animate subject. Unlike the existential verb *i(ru)* which requires an animate subject (cf. (24) and (25)), the subjects of the aspectual auxiliary constructions can be animate (e.g. *Naomi*) or inanimate (e.g. *kuruma* ‘car’), as illustrated in (29).

- (29) a. Naomi-ga hasit-te-i-ru.
 Naomi-NOM run-GER-AUX-PRES
 ‘Naomi is running.’
- b. Kuruma-ga hasit-te-i-ru.
 car-NOM run-GER-AUX-PRES
 ‘The car is running.’

The same is true of the aspectual *te-a(ru)* form. In (30), either an animate subject like *boku* ‘I’ or an inanimate subject like *keeki* ‘cake’ is grammatical.

- (30) a. Boku-wa sakuban yoku ne-te-ar-u kara
 I-TOP last.night well sleep-GER-AUX-PRES because
 kyoo-no-tesuto-wa sinpai-nai.
 today-GER-test-TOP worried-NEG
 ‘I got a good sleep last night (to be ready), so I’m not worried about
 the test today.’ (Martin 1975: 526)
- b. Keeki-ga kat-te-ar-u.
 cake-NOM buy-GER-AUX-PRES
 ‘The cake is bought.’

In (30b), the theme/patient of the verb is case-marked by nominative *ga*, not by accusative *o*. This case alternation between the accusative and the nominative is in fact one of the major characteristics of the auxiliary *te-a(ru)* construction. It has been claimed that the *te-a(ru)* form changes the argument structure and case marking of verbs (see also Martin 1975, Jacobsen 1982, Miyagawa 1989a and Matsumoto 1990a, 1990b). The theme argument can be optionally promoted to subject and case-marked by the nominative. Thus, when the *te-a(ru)* form follows a morphologically transitive verb, the theme of the corresponding transitive form, e.g. the NP *keeki* ‘cake’, can occur either in the object position marked with the accusative case as in (31), or in the subject position marked with the nominative case *ga* as in (30b).

- (31) Naomi-ga keeki-o kat-te-ar-u (koto)
 Naomi-NOM cake-ACC buy-GER-AUX-PRES fact
 ‘(The fact that) Naomi has bought the cake’

This *te-a(ru)* form is termed an “intransitivizing resultative” by Martin (1975), as the agent argument in the argument structure in question is suppressed and is never realized. Although Japanese has multiple-NOMinative constructions, a *te-a(ru)* form with an overt agent, such as *Naomi* in (32a), is still ill-formed. Furthermore, unlike a passive construction, adding a *ni*-marked logical subject is unacceptable, as shown in (32b).

- (32) a. *Naomi-ga keeki-ga kat-te-ar-u (koto)
 Naomi-NOM cake-NOM buy-GER-AUX-PRES fact
 ‘(The fact that) Naomi has bought the cake’
- b. *Naomi-ni keeki-ga kat-te-ar-u (koto)
 Naomi-NOM cake-NOM buy-GER-AUX-PRES fact
 ‘(The fact that) Naomi has bought the cake’

Despite the fact that the overt agent cannot surface as in (32), the *te-a(ru)* form always conveys the implication that the state in question is brought about intentionally. Compare the resultative meaning with *te-a(ru)* form in (33a) with the corresponding perfective reading of the *te-i(ru)* form in (33b).

- (33) a. Mado-ga war-te-ar-u.
 window-NOM break_{tr}-GER-AUX-PRES
 ‘The window is broken (by someone for some purpose).’
 b. Mado-ga war-e-te-i-ru.
 window-NOM break-INTR-GER-AUX-PRES
 ‘The window is broken.’

While the sentence with the *te-a(ru)* form in (33a) indicates the speaker’s belief that the window was broken on purpose, the sentence with the *te-i(ru)* form in (33b) simply describes the situation where the window is broken regardless of whether or not it was brought about intentionally.

Another difference involving (33) is that syntactically, the intransitivizing resultative construction (i.e. the *te-a(ru)* form) is only applicable to transitive verbs, but not to intransitive verbs. Example (33a), which involves the morphologically transitive verb *war* ‘break_{tr}’, is fine, but if we use this construction with the intransitive verb in (33b), the sentence is ill-formed, as shown in (34).

- (34) *Mado-ga war-e-te-ar-u.
 windo-NOM break-INTR-GER-AUX-PRES
 ‘The window is broken.’

What is most relevant for the discussion of the QEC is the fact that the auxiliary *te-i(ru)* never changes argument structure or allows for a case alternation. As shown in (35a), the agent (i.e. *Ken*) and the theme/patient (i.e. *mado* ‘window’) are case-marked by the nominative and the accusative respectively. The sentence (35b), in which reverse cases are assigned, is ungrammatical, as Jacobsen (1992:195) observes.

- (35) a. Ken-ga mado-o war-te-i-ru.
 Ken-NOM window-ACC break_{tr}-GER-AUX-PRES
 ‘Ken is breaking the window.’
 b. *Mado-ga war-te-i-ru.
 window-NOM break_{tr}-GER-AUX-PRES
 ‘(Intended) The window is broken.’

Such unacceptability is also found in other uses like the progressive and experiential meanings of the *te-i(ru)* form. Regardless of the meaning that the *te-i(ru)* form carries, a nominative-marked theme is not acceptable. Thus, neither an example with progressive meaning as in (36) or an example with experiential meaning as in (37) can take a theme (e.g. *ringo* ‘apple’ or *doresu* ‘dress’) with nominative case *ga*.

- (36) a. Naomi-ga ima ringo-o tabe-te-i-ru.
 Naomi-NOM now apple-ACC eat-GER-AUX-PRES
 ‘Naomi is now eating the apple.’

- b. **Ima ringo-ga tabe-te-i-ru.*
 now apple-ACC eat-GER-AUX-PRES
 ‘(Intended) The apple is now eaten.’
- (37) a. *Naomi-ga sono-doresu-o itido ki-te-i-ru.*
 Naomi-NOM the-dress-ACC once wear-GER-AUX-PRES
 ‘Naomi has worn the dress once.’
- b. **Sono-doresu-ga itido ki-te-i-ru.*
 the-dress-NOM once wear-GER-AUX-PRES
 ‘(Intended) The dress has been put on once.’

To sum up, the verb *i(ru)* and *ar(u)* have two functions: as full verbs with existential meanings and as auxiliary verbs with aspectual meanings. The former use is subject to an animacy requirement. In the latter use, there is no animacy restriction on the subject and essentially no existential import. The main differences between the *te-i(ru)* form and the *te-a(ru)* form are that (i) the latter takes on intentionality in its meaning and (ii) the *te-i(ru)* form does not affect the argument structure of the main verb, whereas the *te-a(ru)* form suppresses the agent argument and assigns nominative case to the theme argument.

2.2 The Properties of the QEC

Now turn to the QEC. This construction has a number of intriguing but apparently mysterious syntactic properties that call for an explanation. Before examining each property, I briefly look at the morphosyntactic characteristics of the verb *ur(u)* ‘sell’. The verb stem *ur(u)* ‘sell’ occurs in the no affix (transitive) vs. *-e* (intransitive) pattern. The transitive verb in (38a) does not take any suffix; its agent is marked in the nominative *ga* and the theme in accusative *o*. The intransitive counterpart takes the ending *-e* on the verb stem *ur-* and the theme is case-marked by the nominative as in (38b).

- (38) a. *Naomi-ga sono-nihonsha-o ur-ta.*
 Naomi-NOM the-Japanese-car-ACC sell-PAST
 ‘Naomi sold that Japanese car.’
- b. *Sono-nihonsha-ga tui sakihodo ur-e-ta.*
 the-Japanese-car-NOM just moment.ago sell-INTR-PAST
 ‘That Japanese car was sold off a minute ago.’

As shown in Section 1, the middle form of the verb takes the same suffix *-e* as the intransitive suffix in (38b) and the theme is marked in the nominative case. The passive form also involves a morphological change and marks the theme with nominative case.

- (39) a. Nihonsha-ga ur-are-ta.
 Japanese-car-NOM sell-PASS-PAST
 ‘Japanese cars were sold.’
 b. Nihonsha-ga yoku ur-e-u.
 Japanese-car-NOM well sell-INTR-PRES
 ‘Japanese cars sell well.’

What is in common in the examples (38b) and (39) is that each verb form takes a specific morpheme like *-e* or *-are*, and the theme receives nominative case. Such case-marking is only possible through a morphological change in the verb. Like other verbs in Section 2.1, the aspectual form *te-i(ru)* of the verb *ur(u)* ‘sell_{tr}’ takes on progressive, perfective and experiential meanings, as shown in (40).

- (40) a. Ken-ga ima ie-o ur-te-i-ru.
 Ken-NOM now house-ACC sell-GER-AUX-PRES
 ‘Ken is now selling his house.’ (progressive)
 b. Ken-ga mou ie-o ur-te-i-ru.
 Ken-NOM already house-ACC sell-GER-AUX-PRES
 ‘Ken has already sold his house.’ (perfective)
 c. Ken-ga maenimo ie-o ur-te-i-ru.
 Ken-NOM before house-ACC sell-GER-AUX-PRES
 ‘Ken has sold the house before.’ (experiential)

Similarly, the aspectual form *te-a(ru)* expresses anticipatory, resultative, and experiential meanings, as shown in (41).

- (41) a. Ken-wa sengetu kuruma-o ur-te-ar-ta node,
 Ken-TOP last.month car-ACC sell-GER-AUX-PAST because
 zyugyouryou-o hara-e-ta.
 tuition-ACC pay-can-PAST
 ‘Ken sold the car last month (for the tuition payment) and could pay the tuition.’ (anticipatory)
 b. Ken-ga mou kuruma-o ur-te-ar-ta.
 Ken-NOM already car-ACC sell-GER-AUX-PAST
 ‘Ken has already sold his car.’ (resultative)
 c. Ken-wa maenimo kuruma-o ur-te-ar-u node
 Ken-NOM before car-ACC sell-GER-AUX-PRES because
 zyouto-no-youryou-o e-te-i-ru.
 transfer-GEN- the.way-ACC get-GER-AUX-PRES
 ‘Because Ken has sold his car before, he knows how to transfer the car well.’ (experiential)

So far, the verb *ur(u)* ‘sell’ is not so different from other verbs. However, when the verb *ur(u)* takes the *te-i(ru)* form, it behaves peculiarly. As shown in (36), the *te-i(ru)*

form does not usually show a case alternation, but the Quasi-Existential Construction actually does allow nominative case on the theme argument, as in (42).

- (42) Kuruma-ga ur-te-i-ru.
 car-NOM sell-GER-exist-PRES
 ‘Cars are for sale.’

It is important to note here that the verb form in (42) is still morphologically transitive, not intransitive (i.e. *ur-e* ‘sell+INTR’). Furthermore, the meaning which the *te-i(ru)* imparts allows for only the progressive interpretation. Other perfect and experiential readings are never available in this construction. We will return to the unavailability of these readings in Section 2.2.4. Other unusual properties are also found. The next section will examine the properties of the QEC in more detail.³

2.2.1 No Agent This section will show that, in contrast to the aspectual auxiliary construction, the QEC never allows the logical subject to be realized in any way. Moreover, the QEC is incompatible with any agent-related phenomena.

First, while a canonical transitive verb can take an overt agent argument as in the aspectual auxiliary construction (AAC) like (43b), the verb form *ur-te-i(ru)* in the QEC cannot, as shown in (43a). The passive form *ur-are* in (43c) and the intransitive form *ur-e* in (43d) are also ungrammatical.⁴

³ With regard to the aspectual form *te-a(ru)*, the verbs, which can appear in the QEC, do not participate in the “intransitivizing resultative” construction. For instance, the verbs, *ur(u)* ‘sell’, *yar(u)* ‘give/show’ with the *te-a(ru)* form does not allow the theme object to receive nominative case as illustrated in (i).

- (i) a. *Kuruma-ga ur-te-ar-ta.
 car-NOM sell-GER-AUX-PAST
 ‘Cars were in the state of being sold.’
 b. *Eiga-ga yar-te-ar-ta.
 movie-NOM show-GER-AUX-PAST
 ‘The movie is in the state of being shown.’

Although the hitiku dialect which is spoken in north-central Kyusyu allows (i), the informant I consulted accepts the *te-i(ru)* form, too. It remains an open question why this verb is not acceptable in the *te-a(ru)* form. Some previous literature has claimed that there are certain constraints on this *te-a(ru)* construction. But the verb *ur(u)* is not subject to such constraints. For example, Miyagawa (1989b) proposes that the nominative NP in the intransitivizing resultative construction must be an (affected) theme argument of the verb. In fact, the nominative-marked theme (e.g. *kuruma* ‘car’ in (i)) is regarded as an affected theme, which meets his condition. Furthermore the sentence (i) does not violate conditions that the situation being brought about must be produced purposefully and result from a previous action of an agent (see Matsumoto 1990a; see also Martin 1975, Jacobsen 1992). In this paper, I put aside this issue and focus on the Quasi-Existential Constructions in the *te-i(ru)* form.

⁴ As mentioned above, double nominatives are possible in Japanese, as in (i). The ungrammaticality in (43a) cannot be attributed to the double nominative (see Shibatani 2001 for the double nominative construction).

- (i) a. Ai-ga Ken-ga suki-da.
 Ai-NOM Ken-NOM like-cop
 ‘Ai likes Ken.’
 b. Zou-ga hana-ga nagai (koto)
 elephant-NOM nose-NOM long fact
 ‘the fact that an elephant has a long nose/trunk’

- (43) a. *Naomi-ga ringo-ga ur-te-i-ru.
 Naomi-NOM apple-NOM sell-GER-exist-PRES
 ‘(Intended) Naomi is selling the apples.’ (QEC)
- b. Naomi-ga ringo-o ur-te-i-ru.
 Naomi-NOM apple-NOM sell-GER-AUX-PRES
 ‘Naomi is selling the apples.’ (AAC)
- c. *Naomi-ga ringo-ga ur-are-ta.
 Naomi-NOM apple-NOM sell-PASS-PAST
 ‘(Intended) The apples were sold by Naomi.’ (Passive)
- d. *Naomi-ga ringo-ga 2zikan-maeni ur-e-ta.
 Naomi-NOM apple-NOM 2.hours-ago sell-INTR-PAST
 ‘Naomi sold the apples two hours ago.’ (Intransitive)

As for the realization of the agent, as in (43), the verb in the QEC seems similar to the passive form in (43c) and the intransitive form in (43d). Since some verbal affixes in Japanese change the argument structure as I have shown in Section 1, it is reasonable to claim that the agent argument is suppressed by the passivization/intransitivization operation. However, the verb form in (43a) does not involve any morphological suffixation. It just consists of a morphologically transitive verb *ur-*, the gerund morpheme *-te*, and the auxiliary *i(ru)*. If we assume that the verb *i(ru)* in the QEC is solely an aspectual auxiliary, we are not able to account for the obligatory absence of the agent in (43a).

Secondly, the QEC differs from the passive in that it cannot take a *niyotte*-phrase (*by*-phrase) agent. It behaves much more like an intransitive verb. While the passive sentence (44b) allows the logical subject to surface as an oblique NP, the QEC example (44a) and the intransitive example (44c) are incompatible with an oblique agent.

- (44) a. *Naomi-niyotte ringo-ga ur-te-i-ru.
 Naomi-by apple-NOM sell-GER-exist-PRES
 ‘(Intended) The apples are sold by Naomi.’ (QEC)
- b. Naomi-niyotte ringo-ga ur-are-ta.
 Naomi-by apple-NOM sell-PASS-PAST
 ‘The apples were sold by Naomi.’ (Passive)
- c. *Naomi-niyotte ringo-ga 2zikan-maeni ur-e-ta.
 Naomi-by apple-NOM 2.hours-ago sell-INTR-PAST
 ‘(Intended) The apples sold by Naomi two hours ago.’ (Intransitive)

The incompatibility of the agent with the QEC is further corroborated by agentivity tests. Agent-oriented adverbs like *sibusibu* ‘reluctantly’ and *wazato* ‘deliberately’ are not possible in the QEC, as shown in (45a). It is clear that this restriction does not apply to the aspectual auxiliary construction like (45b) and a passive sentence like (45c). The transitive verb in (45b) takes an agent, and for passives, it is generally assumed that the agent exists implicitly, even if it is not overtly realized. Again, the QEC (45a) is similar to the intransitive example (45d) in

that they are both unacceptable with these adverbs.

- (45) a. *Sibusibu/wazato ringo-ga ur-te-i-ru.
reluctantly/deliberately apple-NOM sell-GER-exist-PRES
'The apples are for sale reluctantly/deliberately.' (QEC)
- b. Sibusibu/wazato ringo-o ur-te-i-ru.
reluctantly/deliberately apple-ACC sell-GER-AUX-PRES (AAC)
- c. Sibusibu/wazato ringo-ga ur-are-ta.
reluctantly/deliberately apple-NOM sell-PASS-PAST
'The apples were sold reluctantly/deliberately.' (Passive)
- d. *Sibusibu/wazato ringo-ga 2zikan-maeni ur-er-ta.
reluctantly/deliberately apple-NOM 2.hours-ago sell-INTR-PAST(Intr.)
'(Intended) The apples sold reluctantly/deliberately two hours ago.'

Further evidence that the QEC is incompatible with an agent comes from control tests. We expect that the PRO in a purpose clause will be controlled by the subject of a transitive verb and by the logical subject of a passive verb. Consider the examples (46b) and (46c) first. In (46b), those who tried to amuse the children are construed as the same people as the sellers of picture books. Likewise, in (46c), the PRO subject in the purpose clause is controlled by the understood logical subject of the passive verb. In contrast, the QEC cannot license a PRO subject of a purpose clause, as illustrated by (46a). Neither does the intransitive in (46d).

- (46) a. *Ehon-ga [PRO kodomo-o tanosimaseru tameni]
picture.book-NOM children-ACC amuse PUR
ur-te-i-ta.
sell-GER-exist-PAST
'The picture books were for sale to amuse the children.' (QEC)
- b. Ehon-o [PRO kodomo-o tanosimaseru tameni]
picture.book-ACC children-ACC amuse PUR
ur-te-i-ta.
sell-GER-exist-PAST
'(They) were selling the picture books to amuse the children.' (AAC)
- c. Ehon-ga [PRO kodomo-o tanosimaseru tameni]
picture.book-NOM children-ACC amuse PUR
ur-rare-ta.
sell-PASS-PAST
'The picture books were sold to amuse the children.' (Passive)
- d. *Ehon-ga [PRO kodomo-o tanosimaseru tameni]
picture.book-NOM children-ACC amuse PUR
ur-e-ta.
sell-INTR-PAST
'The picture books were sold to amuse the children.' (Intransitive)

It is interesting to contrast the agent-related behavior of the QEC with that of the aspectual form *te-ar(u)*. When the *te-ar(u)* form takes a nominative-marked agent and an accusative-marked theme, as shown in Section 2.1, the syntactic behavior does not differ from that of the aspectual auxiliary construction in agentivity. Consider the “intransitivizing resultatives”, which basically preclude the realization of the nominative agent. What is crucial is that the interpretation of intransitivizing resultatives always involves intentionality, as mentioned above. That is, they do not completely exclude agent-sensitive elements in the same way as the QEC. It has been claimed that the intransitivizing resultative prevents the agent argument from being mapped onto the syntax somehow, triggering the promotion of the semantic object to the matrix subject. Matsumoto (1990b:278) claims that “the ‘logical subject’ of a verb in the gerundive form cannot (usually) be expressed by a PP similar to the English *by*-phrase”. With the *te-ar(u)* form, the agent thus cannot appear either in nominative or oblique, as shown in (47).⁵

- (47) a. *Ken-ga mado-ga ake-te-a-ru.
 Ken-NOM window-NOM open-GER-AUX-PRES
 ‘Ken has opened the window.’
 b. *Ken-niyotte mado-ga ake-te-ar-ta.
 Ken-by window-NOM open-GER-AUX-PRES
 ‘The window was opened by Ken.’

Comparing (47) with the QEC examples ((43a) and (44a)), the intransitivizing resultatives appear to be parallel to the QEC. However, unlike the QEC, they are felicitous with agent-oriented adverbs or clauses as shown in (48).⁶ As observed in Section 2.1, the state being described by the intransitivizing resultative must be purposefully caused. It then follows that the agent in question exists as an implicit argument. Thus, the purposive phrases in (48) are acceptable in this construction.

- (48) a. Wazato mado-ga ake-te-ar-ta.
 deliberately window-NOM open-GER-AUX-PAST
 ‘The window was opened deliberately.’
 b. Mado-ga [*pro* sinsenna kuuki-o ireru tameni] ake-te-ar-ta.
 window-NOM flesh air-ACC let.in PUR open-GER-AUX-PAST

⁵ In fact, although Matsumoto states the logical subject “usually” cannot be realized, some sentences, including (i), do not necessarily sound bad.

(i) ? Kodomo-niyotte denki-ga take-te-ar-ta.
 child-by light-NOM turn.on-GER-AUX-PAST
 ‘The light was turned on by the child.’

⁶ I deliberately exclude a manner adverb *sibusibu* ‘reluctantly’ from the example (48a). Following Matsumoto (1990b:285), I assume that, in intransitivizing resultatives, “there is a condition that only those aspects of the action denoted by the gerundive verb that are reflected in the resulting state can be expressed”. The adverb *sibusibu* ‘reluctantly’ does not modify the result state brought by the verb and hence is impossible with this *te-a(ru)* form.

(i) * Mado-ga isoide ake-te-ar-ta.
 window-NOM quickly open-GER-AUX-PRES
 ‘The window was opened quickly.’

‘The window was opened to let in fresh air.’ (Matsumoto 1990:285)

Recall here that verbs like *ur(u)* ‘sell’ which can occur in the QEC cannot be used in this *te-ar(u)* construction (see footnote 3). It may appear that these verbs exceptionally take the *te-ir(u)* form instead of *te-ar(u)*. The contrast between the QEC and the intransitivizing resultatives, however, shows that this is not correct. The evidence that *V-te-ar(u)* is compatible with an agentive interpretation demonstrates that the QEC, which is not compatible with agentivity, is not used as an alternative to the somehow ungrammatical *ur-te-ar(u)*. In contrast, the QEC differs fundamentally from the *V-te-ar(u)* construction in agentivity.

To summarize, this section has demonstrated that the QEC is totally distinct from the aspectual auxiliary construction, as well as passive sentences. It never allows an agent to appear implicitly or explicitly. Moreover, any elements related to the agent (i.e. an agent-oriented adverb or a purpose clause with a PRO agent) are not possible in the QEC. This incompatibility clearly differentiates the QEC from intransitivizing resultatives. Given what I have shown, one may stipulate that the QEC functions much like intransitive sentences, but in the next section I will draw a sharp contrast between QEC and intransitive sentences.

2.2.2 No Goal In this section, I will show that the Quasi-Existential Construction is entirely different from any existing constructions in Japanese with respect to the occurrence of a possessive goal argument. One notable fact about the QEC is that a possessive goal argument cannot be realized.

The verb *ur(u)* ‘sell’ is associated with three arguments (agent, theme and possessive goal), but the QEC is ill-formed with the goal argument *gakusei-ni* ‘students’, as illustrated in (49a). In contrast, the aspectual auxiliary construction like (49b) and a passive sentence like (49c) are not subject to this restriction. With regard to goal realization, intransitive sentences do differ from the QEC. In (49d), the goal argument is licit with the intransitive verb *ur-e* ‘sell+INTR’. (I will make the same point with other verbs in Section 2.2.5.)

- (49) a. *Toyota-no kuruma-ga gakusei-ni ur-te-i-ta.
 Toyota-GEN car-NOM student-to sell-GER-exist-PAST
 ‘Toyota cars were sold to students.’ (QEC)
- b. Toyota-no kuruma-o gakusei-ni ur-te-i-ta.
 Toyota-GEN car-ACC student-to sell-GER-AUX-PAST
 ‘(They) were selling Toyota cars to students.’ (AAC)
- c. Toyota-no kuruma-ga gakusei-ni ur-rare-ta.
 Toyota-GEN car-NOM student-to sell-PASS-PAST
 ‘Toyota cars were sold to students.’ (Passive)
- d. Toyota-no kuruma-ga 2zikan maeni gakusei-ni ur-e-ta.
 Toyota-GEN car-NOM 2.hour ago student-to sell-INTR-PAST
 ‘Toyota cars were sold to students two hours ago.’ (Intr)

Although the possessive goal argument (*ni*-marked NP) makes the QEC in (49a) ungrammatical, there is one way in which a goal-like argument can be expressed in this construction. Like other verbs which do not subcategorize for a goal argument, as in (50a), the QEC can have benefactive phrases headed by *notameni* or *mukeni* ‘for’ with a recipient interpretation as in (50b).

- (50) a. Kodansha-ga zassi-o zyosei notameni/mukeni kaitei-si-ta.
 Koudansha-NOM magazine-ACC women for reedit-do-PAST
 ‘Kodansha reedited the magazine for women.’
 b. Zitensya-ga sinnyuusei notameni/mukeni ur-te-i-ru.
 bicycle-NOM new.student for sell-GER-exist-PRES
 ‘Bicycles are for sale for new students.’

Again, the QEC (i.e. *V-te-i(ru)*) may be distinguished from the intransitivizing resultative (i.e. *V-te-ar(u)*). In (51), the intransitivizing resultative does not prevent the realization of a goal argument. The goal argument *Ken-ni* ‘to Ken’ is grammatical with the three-place predicate *watas(u)* ‘give’ with the *te-ar(u)* form.

- (51) Tiketto-ga mou Ken-ni watasi-te-ar-u.
 ticket-NOM already Ken-to give-GER-AUX-PRES
 ‘The ticket has already been given to Ken.’

The facts presented in this section and the previous one that the QEC can take neither an agent nor a possessive goal argument suggests that the QEC is different from other constructions.

2.2.3 Locative Arguments The third distinguishing characteristic of the QEC involves the selection of locative arguments. While a main verb such as *ur(u)* ‘sell’ is not a stative verb and cannot take an argument marked by the locative *ni* by itself, in the QEC it can exceptionally occur with the stative locative marker *ni*.

There are two ways to mark spatial location in Japanese: *de* and *ni*. It is generally claimed that while a *de* locative, called the dynamic locative, is compatible with almost any sentence, a *ni* locative, called the static locative, is compatible only with stative sentences (Martin 1975 and Teramura 1982). Nakau (1998) makes this picture clearer, stating that *ni* only can be used to refer to the location of a “Thing”, while *de* refers to the location of a “Situation” which includes states and events (see Jackendoff 1983 for the term “Thing”). The following entity-denoting sentences (i.e. locative-existential sentences) are only compatible with a “Thing”-related locative *ni*, but not with a “Situation”-related locative *de*, as illustrated in (52).

- (52) a. Gakkou-{*ni*/**de*} Ken-ga i-ru.
 school-LOC Ken-NOM exist-PRES
 ‘Ken is at school.’

- b. Heya-{*ni*/**de*} hon-ga ar-u.
 room-LOC book-NOM exist-PRES
 ‘There are books in the room.’

Since the existential sentences indicate that an entity is located somewhere, locative *de*, which refers to the place of a state/event, is not appropriate in existentials.

Locative *de*, on the other hand, is used in state/event-denoting sentences. The location denoted by *de* cannot be construed as the place where a “Thing” is located. Rather, it is supposed to be the place where a certain event or state takes place or is taking place. Consider the example with an event reading in (53a) and with an state reading in (53b): Only locative *de* is acceptable. (53a) shows that the event of *Naomi’s reading a book* takes place at the café, which results in the grammaticality differences between *ni* marking and *de* marking. Likewise, (53b) denotes the state of *the price of the camera being high*, where only a *de* locative is felicitous.

- (53) a. Kafe-{**ni*/*de*} Naomi-ga hon-o yom-u.
 café-LOC Naomi-NOM book-ACC read-PRES
 ‘Naomi reads a book in the café.’
 b. Ano-mise-{**ni*/*de*} sono-kamera-no nedan-ga takai.
 that-store-LOC the-camera-GEN price-NOM high
 ‘The price of the camera is high at that shop.’ (Ueno 2000: 110)

It is worth noting that an existential sentence involving the verb *i(ru)* or *ar(u)* can take the *de* locative when the entity denoted by the NP is not a Thing, but an event. Unlike the NP *hon* ‘book’ in (52b), the NP *kaigi* ‘meeting’ in the existential sentence (54) indicates an activity. The *ni* locative is thus unacceptable.

- (54) Kono heya-{**ni*/*de*} kaigi-ga ar-ta.
 this room-LOC meeting-NOM exist-PAST
 ‘There was a meeting held in this room.’

Now we predict that the verb *ur(u)* ‘sell’, which indicates a selling event, is allowed to take only the *de* locative, but not the *ni* locative. This prediction is borne out, as shown in (55).

- (55) Friimaaketto-{**ni*/*de*} Naomi-ga sinzyu-no-nekkuresu-o ur-ta.
 flea.market-LOC Naomi-NOM pearl-GEN-necklace-ACC sell-PAST
 ‘Naomi sold a pearl necklace at the flea market.’

As expected, unlike the existential verb *i(ru)* in (52a), the auxiliary *i(ru)* in the aspectual auxiliary construction has lost its ability to license the *ni* locative irrespective of their interpretation, as shown in (56). This is in accordance with the earlier observation that *i(ru)* in this construction has been grammaticalized in Section

2.1.

- (56) a. Kurabu-{*ni/de} Ken-ga odor-te-i-ru.
 club-LOC Ken-NOM dance-GER-AUX-PRES
 ‘Ken is dancing at the club.’ (progressive)
- b. Tyuushazyou-{*ni/de} kuruma-no-mado-ga war-e-te-i-ta.
 parking.lot-LOC car-GEN-window-NOM break-INTR-GER-AUX-PAST
 ‘The car window was broken at the parking lot.’ (perfective)
- c. Amerika-{*ni/de} Naomi-ga ichido rikonsi-te-i-ru.
 America-LOC Naomi-NOM once divorce-GER-AUX-PRES
 ‘Naomi has divorced before in the United States.’ (existential)

However, this is not the case with the QEC. Strikingly, (57a) shows that the location in the QEC can be marked by either *de* or *ni*. In contrast, the aspectual auxiliary, passive, and intransitive forms only allows the occurrence of locative *de*, but not locative *ni*, as shown in (57b)-(57d).⁷

- (57) a. Friimaaketto-{*ni/de} sinzyu-no-nekkuresu-ga ur-te-i-ta.
 flea.market-LOC pearl-GEN-necklace-NOM sell-GER-exist-PAST
 ‘At the flea market, a pearl necklace was for sale.’ (QEC)
- b. Friimaaketto-{*ni/de} sinzyu-no-nekkuresu-o ur-te-i-ta.
 flea.market-LOC pearl-GEN-necklace-ACC sell-GER-exist-PAST
 ‘At the flea market, (they) were selling a pearl necklace.’ (AAC)
- c. Friimaaketto-{*ni/de} sinzyu-no-nekkuresu-ga ur-rare-ta.
 flea.market-LOC pearl-GEN-necklace-NOM sell-PASS-PAST
 ‘At the flea market, a pearl necklace was sold.’ (Passive)
- d. Friimaaketto-{*ni/de} nekkuresu-ga 2zikan maeni ur-e-ta.
 flea.market-LOC necklace-NOM 2.hours ago sell-INTR-PAST
 ‘At the flea market, a necklace sold two hours ago.’ (Intr.)

These facts strongly indicate that the verb *i(ru)* in the QEC still maintains its status as an existential verb.

Adapting Nakau’s (1998) view, we can say that the example of the QEC (57a) is ambiguous between two readings: the state/event of selling and the existence of the

⁷ The intransitivizing resultative (*V-te-ar(u)*) is compatible with locative *ni*.

- (i) Kouen-{*ni/de}ki-o taosi-ta.
 park-LOC tree-NOM topple-PAST
 ‘At the park, (they) toppled trees.’
- (ii) Kouen-{*ni/*de}ki-o taosi-te-ar-u.
 park-LOC tree-NOM topple-GER-AUX-PRES
 ‘At the park, trees are topped.’

The occurrence of a *ni* PP may suggest that this *V-te-ar(u)* construction denotes a “Thing” rather than a result “state” and that it is an existential construction. In fact, Miyagawa (1989b: 58) mentions that “*aru* is probably related to the verb *aru* ‘exist’, which would explain the stative nature of this construction”. Concerning the question what kinds of meaning the *te-ar(u)* form really conveys, I have little to say here as my focus is on the QEC.

entity sold. In (57a), the expectation would be that while the presence of locative *de* is linked to the state/event reading, the presence of *ni* is linked to the existential reading. As long as we examine example (57a) alone, however, it seems quite hard to see if each locative is really related to the relevant reading. This is because the place of the *for sale* state is naturally considered to be the place at which the sold object is located. The two reading thus cannot be distinguished.

In order to clarify which locative phrase is linked to which interpretation, consider the examples in (58), where both locatives *de* and *ni* co-occur in a QEC. Suppose that we went to Tower Records to buy some CDs. When checking out, we found a lot of Care Bears in front of the cashier. In that situation, we can say the following:

- (58) a. Rezi-mae-ni Tawareko-de keabea-ga ur-te-i-ta.
 cashier-front-LOC Tower.Record-LOC Care.Bear-NOM sell-GER-exist-PAST
 ‘At Tower Records, Care Bears were for sale in front of the cashier.’
 b. Tawareko-de rezi-mae-ni keabea-ga ur-te-i-ta
 Tower.Record-LOC cashier-front-LOC Care.Bear-NOM sell-GER-exist-PAST
 ‘At Tower Records, Care Bears were for sale in front of the cashier.’

Japanese is a relatively free word-order language, and the order of the two locatives in (58) does not matter here. Some may claim that the place where the Care Bear is located is still the same as the place where the *for sale* state exists, that is, *at Tower Records*. Yet, when there are two locatives, each marked with *ni* or *de*, it is at the *ni*-marked location (i.e. *in front of the cashier*) that the Care Bears in question (i.e. the sold objects) are really located. It is *at Tower Records* where the whole selling event happens --- this is consistent with *ni* on the cashier and *de* on Tower Records. This observation is further confirmed by the ungrammatical sentences in (59). If we switch the locational markings in (58), so that the location *in front of the cashier* is marked in *de*, and the location *Tower Records* in *ni*, the resulting sentences in (59) are ill-formed.

- (59) a. *Tawareko-ni rezi-mae-de keabea-ga ur-te-i-ta.
 Tower.Record-LOC cashier-front-LOC Care.Bear-NOM sell-GER-exist-PAST
 b. *Rezi-mae-de Tawareko-ni keabea-ga ur-te-i-ta.
 cashier-front-LOC Tower.Record-LOC Care.Bear-NOM sell-GER-exist-PAST

It is clear that the infelicity of (59) is attributable to the locative marking on the place *the front of the cashier*.⁸ From the grammaticality contrast in (58) and (59), I argue

⁸ As in (57a), the QEC is compatible either with the *ni* marker or with the *de* marker, if we take one of the locative phrases out from each example in (59), no inconsistency arises and (59) becomes felicitous.

- (i) a. Tawareko-{*ni/de*} keabea-ga ur-te-i-ta.
 Tower.Record-LOC Care.Bear-NOM sell-GER-exist-PAST
 ‘At Tower Records, Care Bears were for sale.’
 b. Rezi-mae-{*ni/de*} keabea-ga ur-te-i-ta.
 cashier-front-LOC Care.Bear-NOM sell-GER-exist-PAST
 ‘In front of the cashier, Care Bears were for sale.’

that in the QEC, the *ni* locative should be associated with the place where a sold object is located, whereas the *de* locative should be associated with the place where the *for sale* state takes place. This follows if the verb *i(ru)* in the QEC still syntactically functions as an existential verb, as we have observed.

One consequence of this argument is that we correctly predict that in the QEC, the *ni* locative is never acceptable in the situation where the entity cannot exist at the place denoted by the *ni* locative. Take a locative phase like *orikomi-koukoku* ‘newspaper inserts’ as an example. Suppose that we checked what is for sale in the newspaper inserts, and found some good beds for sale. We would not think that the good beds indeed exist in the advertisement paper. As illustrated in (60), this location may be marked by *de*, as in (60a), but if marked by *ni*, the example is ungrammatical, as in (60b).

- (60) a. Kinou-no orikomi-koukoku-de beddo-ga ur-te-i-ta.
 yesterday-GEN inserted-ads-LOC bed-NOM sell-GER-exist-PAST
 ‘In yesterday’s newspaper inserts (I found) beds were for sale.’
 b. *Kinou-no orikomi-koukoku-ni beddo-ga ur-te-i-ta.
 yesterday-GEN inserted-ads-LOC bed-NOM sell-GER-exist-PAST
 ‘At yesterday’s newspaper inserts, (I found) beds were for sale.’

Existential sentences with these locative PPs show the same ungrammaticality, as shown in (61). Although the existential verb *ar(u)* is compatible with a *ni* locative (cf. (52)), it is impossible if the location marked by the *ni* locative is not an appropriate place for the NP marked by nominative (i.e. *beds*) to be located.

- (61) *Kinou-no orikomi-koukoku-ni beddo-ga ar-ta.
 yesterday-GEN inserted-ads-LOC bed-NOM exist-PAST
 ‘At yesterday’s newspaper inserts, there were beds.’

Furthermore, the *de* locative is unacceptable if a certain location in the QEC cannot be construed as the place in which the event is going on. As one of the most unlikely places in which the real event of *selling* happens, consider the locative phrase like *syookeesu-no-naka* ‘inside the display showcase’. As shown in (62), when this location is marked with a *de* locative, the QEC in (62a) is ill-formed, but the QEC with a *ni* locative is well-formed, as in (62b).

- (62) a. #Syookeesu-no-naka-de tyiara-ga ur-te-i-ta.
 display.show.case-GEN-inside-LOC tiara-NOM sell-GER-exist-PAST
 ‘Inside the display showcase, tiaras were for sale.’
 b. Syookeesu-no-naka-ni tyiara-ga ur-te-i-ta.
 display.show.case-GEN-inside-LOC tiara-NOM sell-GER-exist-PAST
 ‘Inside the display showcase, tiaras were for sale.’

Since the display showcase is too small for the selling event to take place, it is pragmatically hard to obtain the interpretation that the event of *selling of tiaras* happens inside the display showcase. Unless we assume an unusual scenario such as a world of dwarves, it is impossible for someone to sell the tiaras ‘inside’ the display showcase. Without the initial selling event, it then follows that the *for sale* state cannot be brought about. This failure of the event reading explains why the *de* locative cannot occur in (62a). In contrast, what the location denoted by the *ni* locative requires is just that the entity be appropriately located there. The example (62b) is thus felicitous since the tiara is put inside the display showcase.

Indeed, even canonical transitive sentences with or without the *te-i(ru)* form sound odd with the *de* locative, as in (63). This suggests that the *de* locative phrase must be associated with the situation (i.e. event or state) denoted by the verb *ur(u)* ‘sell’.

- (63) a. #Syookeesu-no-naka-de tyiara-o ur-ta.
 display.show.case-GEN-inside-LOC tiara-ACC sell-PAST
 ‘Inside the display showcase, (they) sold tiaras.’
 b. #Syookeesu-no-naka-de tyiara-o ur-te-i-ta.
 display.show.case-GEN-inside-LOC tiara-ACC sell-GER-AUX-PAST
 ‘Inside the display showcase, (they) were selling tiaras.’

To conclude, this section revealed an interesting fact about the locative phrases in the QEC. The QEC can exceptionally co-occur with *ni* locatives just like existential sentences. Moreover, the QEC can take *de* locatives like other non-existential sentences. From the evidence that the QEC allows two different locational PPs (i.e. *ni*-PP and *de*-PP), I claimed that the QEC can denote the state of *being for sale* and the existence of the sold object at the same time. More specifically, based on Nakau’s claim, I argued that the state of *being for sale* should be located in the place indicated by *de*, whereas the existence of the sold entity should be in the *ni*-marked place. The question is then why the QEC behaves like an existential sentence. As long as we assume that the *te-i(ru)* form is an aspectual marker, no plausible explanation would be available. The evidence in this section suggests that I need a different perspective.

2.2.4 Aspectual Restrictions

As shown in Section 1, there is a restricted set of verbs that can participate in the QEC. Examining verbs semantically similar to the verb *ur(u)* ‘sell’ and asking which verb is acceptable in the QEC and which is not, this section demonstrates that there are aspectual restrictions on the verbs that can appear in the QEC. I argue that both durativity and telicity play important roles in the conditions governing verbs that can enter into the QEC. Specifically, I propose that verbs in the QEC must be durative and atelic, and present that the QEC itself is necessarily durative and atelic. Then I show that such aspectual restrictions are not shared by the aspectual auxiliary construction. Furthermore, with regard to aspect and telicity, I demonstrate that the QEC is parallel to true existential sentences.

I begin by considering complex predicates consisting of a verbal noun and the light verb *su(ru)*. The Japanese verbal noun (VN) and the verb *su(ru)* ‘do’ can form a

complex predicate, where the argument structure of the VN is completely maintained. (See also Grimshaw and Mester 1988, Miyagawa 1989b, and Kageyama 1993 for VN constructions.) The VN *han-bai* consists of two Chinese characters: *han* was used to mean ‘sell’ in Old Japanese, and *bai* also means ‘sell’ in Contemporary Japanese. It is safe to say that the interpretation which the VN *han-bai* carries is almost the same as that of the verb *ur(u)* ‘sell’. The subtle difference in meaning between them is that the VN *han-bai* appears to be better suited for a commercial-related situation: an agent like “company” sounds better than an individual agent. In contrast, another VN *bai-kyaku* that consists of Chinese characters meaning ‘sell’ and ‘disappear’ lexically implies a completive event reading.

- (64) a. Apple-ga DRM-free-no-gakkyoku-o (yuuzaa-ni) hanbai-si-ta.
 Apple-NOM DRM-free-GEN-song-ACC user-dat sell-do-PAST
 ‘Apple sold DRM-free songs (to users).’
 b. Vodafone-ga nihon-bumon-no-kabu-o (Softbank-ni)
 Vodafone-NOM Japan-operation-GEN-share-ACC Softbank-dat
 baikyaku-si-ta.
 sell.off-do-PAST
 ‘Vodafone sold off their shares of Japanese operation (to Softbank).’

Now I consider the QECs with these VNs. Despite their semantic similarity (in the sense that they are both verbs of selling), the verb *baikyaku-su(ru)* ‘sell off’ cannot be used in the QEC, but the verb *hanbai-su(ru)* ‘sell’ can, as shown in (65).

- (65) a. iTunes-Store-de DRM-free-no-gakkyoku-ga hanbai-si-te-i-ru.
 iTunes-Store-LOC DRM-free-GEN-song-NOM sell-do-GER-exist-PRES
 ‘At iTunes Store, DRM-free songs are sold.’
 b. *Vodafone.Japan-no-kabu-ga baikyaku-si-te-i-ru.
 Vodafone.Japan-GEN-share-NOM sell.off-do-GER-exist-PRES
 ‘The shares of Vodafone Japan are sold off.’

What seems to govern the unacceptability of (65b) is durativity. I will contend that the QEC is associated with durative predicates. Inherently durative verbs like *hanbai-su(ru)* ‘sell’ are compatible with QEC, while non-durative verbs like *baikyaku-su(ru)* ‘sell-off’ are not. That the two verbs differ in durativity is shown by the difference in aspectual interpretations. It has been observed in the literature that only durative verbs in the *te-i(ru)* form can receive a progressive interpretation (Kindaichi 1957, Martin 1975, Mihara 1998, Kudo 1995, Shirai 2000, among others). In contrast, instantaneous verbs in Kinadichi’s (1950) classification (or achievement verbs in Vendler’s 1957) only have a perfect meaning.⁹ For example, the verbs,

⁹ *Te-i(ru)* can yield an experiential interpretation independent of the type of verb: durative or punctual. Despite the extensive discussion in the literature of what licenses experiential import, the exact factors are still controversial (see Jacobsen 1991, Kudo 1995, Shirai 2000) and hence I will not discuss the experiential interpretation of the QEC any further.

oti(ru) ‘fall’ and *hair(u)* ‘enter’, are generally categorized as instantaneous/achievement verbs. In (66), the *te-i(ru)* forms of both verbs can only receive perfective readings, but not progressive readings.

- (66) a. Saifu-ga miti-ni oti-te-i-ru.
 wallet-NOM street-on fall-GER-AUX-PRES
 ‘The wallet is on the street (as a result of having fallen).’ (perfective)
 *‘The wallet is falling onto the street.’ (progressive)
- b. Naomi-ga eki-ni tui-te-i-ru.
 Naomi-NOM station-to arrive-GER-AUX-PRES
 ‘Naomi has arrived to the station.’ (perfective)
 *‘Naomi is arriving to the station.’ (progressive)

When used in the aspectual auxiliary construction, the predicate *han-bai-su(ru)* ‘sell’ can be interpreted with a progressive reading as in (67a). With the predicate *bai-kyaku-su(ru)* ‘sell off’, on the other hand, the progressive reading is not available, but only the perfective reading is possible, as shown in (67b).

- (67) a. Apple-ga DRM-free-no-gakkyoku-o (yuuzaa-ni)
 Apple-NOM DRM-free-GEN-song-ACC user-dat
 hanbai-si-te-i-ru.
 sell-do-GER-AUX-PRES
 ‘Apple is selling DRM-free songs (to users).’ (progressive)
- b. Vodafone-ga nihon-bumon-no-kabu-o (Softbank-ni)
 Vodafone-NOM Japan-operation-GEN-share-ACC Softbank-dat
 baikyaku-si-te-i-ru.
 sell.off-do-GER-AUX-PRES
 ‘Vodafone has sold off their shares of Japanese operation (to Softbank).’ (perfective)
 *‘Vodafone is selling off their shares of Japanese operation (to Softbank).’ (progressive)

(67a) illustrates that the complex verb *hanbai-su(ru)* ‘sell’ is durative, so it is classified as an activity or an accomplishment verb. In contrast, the unavailability of the progressive reading in (67b) illustrates that the complex verb *baikyaku-su(ru)* ‘sell off’ is not durative, but rather is instantaneous.

However, note that the two complex verbs *hanbai-su(ru)* ‘sell’ and *baikyaku-su(ru)* ‘sell off’ also differ in telicity. While the verb *hanbai-su(ru)* ‘sell’ is atelic, the verb *baikyaku-su(ru)* ‘sell off’ is telic. Presumably, this is because *kyaku* in the VN *baikyaku* literally means ‘disappear’, like *off/out* in English, verbal compounds involving *kyaku* imply that something is gone or something is transferred to someone if a predicate expresses change of possession or location.¹⁰ The complex

¹⁰ Such VNs are *tai-kyaku* (leave-disappear) ‘retreat’, *hen-kyaku* (return-disappear) ‘return’, and *ki-kyaku* (throw.away-disappear) ‘dismiss’. They all cannot receive a progressive interpretation with the

predicate with *bai-kyaku* entails that a recipient has received the sold object; the selling event is complete.

Here I use *in*-adverbial modification to show telicity in this complex predicate. Kearns (2000:205) states that “an *in* adverbial locates the bound of the event within or at the end of the stated interval”. Comparable to telicity tests in English, temporal adverbial tests (*in* or *for*) in Japanese also give the contrasting results with atelic and telic predicates. (See also McClure 1994, Hasegawa 1996, Tsujimura 2006 for diagnostic tests for aspect in Japanese.) One thing should be noted; a single NP in Japanese is potentially ambiguous between singular/plural and definite/indefinite, because Japanese does not have determiners or obligatory number marking. In English, many predicates with an indefinite count noun direct object denote an accomplishment, whereas the same predicate with a bare plural or mass noun denotes an activity, which is incompatible with a punctual adverbial, as shown in (68b) and (68c). It has been claimed that predicates with bare plural objects may receive an iterated event interpretation, whereas mass noun objects truly force a non-delimited reading of the event.

- (68) a. John ate an apple in three minutes.
 b. *John ate apples in three minutes.
 c. *John ate rice in three minutes.

In contrast, we cannot tell whether a bare NP, e.g. *ringo* in (69a), is singular/plural or indefinite/definite in Japanese. As McClure (1994:64) states that ‘accomplishments are really just telic achievement-like predicates derived from activities’, activity verbs like *tabe(ru)* ‘eat’ can be used either as atelic or telic, as illustrated in (69). Even with distinct temporal adverbials, an *in*-adverbial which implies the duration of time or a *for*-adverbial which refers to a point in time, the object forms (i.e. *ringo-o* ‘apple-ACC’) are still the same irrespective of their interpretation, as in (69b) and (69c).

- (69) a. Ken-ga ringo-o tabe-ta.
 Ken-NOM apple-ACC eat-PAST
 ‘Ken ate an apple/the apple/apples.’
 b. 40pun-kan Ken-ga ringo-o tabe-ta.
 40.minutes-for Ken-NOM apple-ACC eat-PAST
 ‘Ken ate apples for forty minutes.’
 c. 40pun-de Ken-ga ringo-o tabe-ta.
 40.minutes-in Ken-NOM apple-ACC eat-PAST
 ‘Ken ate an apple/the apple in forty minutes.’

Therefore in what follows, I will use [NP-ga/o 1-numeral classifier] ‘NP-NOM/acc one-CL’ for telicity tests. This word order forces a singular interpretation and more

aspectual auxiliary *te-i(ru)* form (cf. (67b)).

importantly, the NP in the floating numeral quantifier construction (i.e. the NP followed by a numeral classifier) obligatorily receives an indefinite interpretation as noted by Kamio (1977), Watanabe (2005) and others.

- (70) Watasi-wa hon-o 1-satu kat-ta.
 I-TOP book-ACC 1-CL buy-PAST
 ‘I bought a book.’

Furthermore, for durativity tests, I will use mass noun object like *onsen-sui* ‘hot spring water’ to force a non-iterated and non-delimited interpretation of the predicate.

- (71) Naomi-ga onsensui-o nom-u.
 Naomi-NOM hot.spring.water-ACC drink-PRES
 ‘Naomi drinks hot spring water.’

Turn back to the VN constructions. The temporal expression *sanfun-de* ‘in three minutes’ in (72b) is understood as locating the bound of the event (*Vodafone’s selling the headquarters building*) at the end of a three-minute interval. In contrast, (72a) shows that the selling event denoted by the verb *hanbai-su(ru)* ‘sell’ does not identify the terminal point and an atelic interpretation results, which is infelicitous with the *in*-adverbial.

- (72) a. *Sanfun-de Apple-ga disan-sedai-iPod-o 1-dai
 three.minutes-in Apple-NOM third-GENERATION-iPod-ACC 1-CL
 hanbai-si-ta.
 sell-do-PAST
 ‘Apple sold the third generation iPod in three minutes.’
 b. Sanfun-de Vodafone-ga honsya-biru-o baikyaku-si-ta.
 three.minutes-in Vodafone-NOM headquarter-building-ACC sell.off-do-PAST
 ‘Vodafone sold off the headquarters building in three minutes.’

The question is whether *hanbai-su(ru)* ‘sell’ shows the QEC because it is atelic or because it is durative. In order to determine what governs the verb in the QEC, it is necessary to take a look at the telicity of verbs in the QEC in more detail.

I begin by examining telicity of the following complex predicates (V_1 - V_2 compounds): (i) *uri-das(u)* ‘release’ [–telic, +durative], (ii) *uri-tuke(ru)* ‘palm off’ [+telic, +durative], (iii) *uri-kir(u)* ‘sell out’ [+telic, –durative]. In the V_1 - V_2 compounds in (73), some V_2 verbs are claimed to function as aspectual verbs. For instance, the V_2 verbs like *tuke(ru)* ‘attach’ and *kir(u)* ‘cut’ indicate that the event denoted by the V_1 is completed, i.e. telic (cf. Tsujimura 2006:389). The compounds *uri-tuke(ru)* ‘palm off’ and *uri-kir(u)* ‘sell out’ are always telic, and we expect that they would be compatible with a *in*-temporal adverbial, which is borne out as in (73b) and (73c). However, the compound *uri-das(u)* ‘release’ is anomalous with this

temporal expression, as in (73a), suggesting it is atelic.¹¹

- (73) a. *Sanfun-de Naomi-ga ie-o 1-ken uri-dasi-ta.
 three.minutes-in Naomi-NOM house-ACC 1-CL sell-emit-PAST
 ‘Naomi released a house in three minutes.’
 b. Sanfun-de Naomi-ga ie-o 1-ken uri-tuke-ta.
 three.minutes-in Naomi-NOM house-ACC 1-CL sell-attach-PAST
 ‘Naomi palmed off a house in three minutes.’
 c. Sanfun-de Naomi-ga ie-o 1-ken uri-kir-ta.
 three.minutes-in Naomi-NOM house-ACC 1-CL sell-cut-PAST
 ‘Naomi sold out a house in three minutes.’

Next, consider durativity, using the *te-i(ru)* forms. The verb *das(u)* ‘emit’ as an aspectual verb adds an inchoative meaning to the V_1 verb. This means that V_1 must be durative so that the V_2 like the verb *das(u)* ‘emit’ can refer to the beginning point. The fact that the sentence with the *te-i(ru)* form can be interpreted as progressive in (74a) confirms that the verbal compound *uri-das(u)* ‘release’ is durative. The verb *tuke(ru)* ‘attach’, which implies contact between two entities (e.g. theme and goal), just specifies telicity. As shown in (74b), the compound *uri-tuke(ru)* ‘palm off’ receives a progressive reading, and it is durative. In contrast, the compound *uri-kir(u)* ‘sell out’ cannot have a progressive reading, which shows that the verbal compound *uri-kir(u)* ‘sell out’ in (74c) is instantaneous.

- (74) a. Naomi-ga ie-o (1-ken) uri-dasi-te-i-ru.
 Naomi-NOM house-ACC 1-CL sell-emit-GER-AUX-PRES
 ‘Naomi is releasing a house.’ (progressive)
 b. Naomi-ga ie-o (1-ken) uri-tuke-te-i-ru.
 Naomi-NOM house-ACC 1-CL sell-attach-GER-AUX-PRES
 ‘Naomi is palming off a house.’ (progressive)
 c. Naomi-ga ie-o (1-ken) uri-kir-te-i-ru.
 Naomi-NOM house-ACC 1-CL sell-cut-GER-AUX-PRES
 ‘Naomi has sold out a house.’ (perfective)

Keeping their aspectual features in mind, consider the QECs involving these verb compounds. Given that only durative verbs can be interpreted as progressive and that the QEC requires a durative verb, we then predict that at least the two durative compounds, *uri-das(u)* ‘release’ in (74b) and *uri-tuke(ru)* ‘palm off’ in (74b), would be compatible with the QEC, and that the punctual predicate, *uri-kir(u)* ‘sell out’ in (74c) would not be. However, as (75) shows, neither *uri-kir(u)* ‘sell out’ nor *uri-tuke(ru)* ‘palm off’ is acceptable.

¹¹ (73a) may have an interpretation such that the selling event took place after three minutes. Yet the important point is that the event is not construed as ending at the end of three-minute interval.

- (75) a. Ie-ga (1-ken) uri-dasi-te-i-ru.
house-NOM 1-CL sell-emit-GER-exist-PRES
‘A house is for sale.’
- b. *Ie-ga (1-ken) uri-tuke-te-i-ru.
house-NOM 1-CL sell-attach-GER-exist-PRES
‘A house is palmed off.’
- c. *Ie-ga (1-ken) uri-kir-te-i-ru.
house-NOM 1-CL sell-cut-GER-exist-PRES
‘A house is sold out.’

The unavailability of the progressive reading in (74c) demonstrates that the verb *uri-kir(u)* ‘sell out’ is not durative. This explains why the compound *uri-kir(u)* ‘sell out’ in (75c) cannot appear in the QEC. Yet this should not prevent the durative compound *uri-tuke(ru)* ‘palm off’ in (75b) from occurring in the QEC. However, the fact is that such durative and telic compounds are not licit in the QEC, either.

The combinations of telicity and durativity relevant to the QEC are summarized in the table below.

(76)

		Telicity	
		+	-
Durativity	+	* <i>uri-tuke(ru)</i> ‘palm off’	✓ <i>ur(u)</i> ‘sell’ <i>hanbai-su(ru)</i> ‘sell’
	-	* <i>baikyaku-su(ru)</i> ‘sell off’ <i>uri-kir(u)</i> ‘sell out’	?

As the table (76) shows, what appears to be important to the acceptability of the QEC is telicity. Due to the lack of reasonable candidates for [–durative, –telic] verbs in the QEC, it is not quite clear whether durativity plays a crucial role. That is, I have not been able to find an example of a verb of selling of this type at this moment.

However, there is one prediction. As I have shown in Section 2.1, the QEC only has a progressive interpretation, but not a perfective interpretation. The verb *ur(u)* ‘sell’, when combined with *te-i(ru)*, is ambiguous between a progressive and a perfective reading, as shown in (77a). However, the same verb *ur(u)* ‘sell’, when embedded in the QEC, only yields a progressive reading, as shown in (77b).

- (77) a. Naomi-ga ie-o (1-ken) ur-te-i-ru.
Naomi-NOM house-ACC 1-CL sell-GER-exist-PRES
‘Naomi is selling a house.’ (progressive)
‘Naomi has sold a house.’ (perfective)

- b. Ie-ga (1-ken) ur-te-i-ru.
 house-NOM 1-CL sell-GER-exist-PRES
 ‘(Lit.) A house is selling. (A house is for sale.)’ (progressive)
 *‘A house has sold.’ (perfective)

This suggests that the missing verb type, [–durative, –telic], would be ungrammatical in the QEC. If so, durativity is indeed another condition imposed on the QEC. In Section 3.4, I will propose an analysis in which the aspectual restrictions [+durative, –telic] come from the property of the existential verb *i(ru)* in the QEC.

As shown in (77a), the fact that the verb *ur(u)* ‘sell’ with the aspectual auxiliary verb *i(ru)* can receive a progressive reading demonstrates that it is durative. I examine telicity of the verb, comparing with that of the aspectual auxiliary construction. In Japanese, a bare NP is ambiguous between singular and plural. Like the verb *tabe(ru)* ‘eat’ in (69), the verb *ur(u)* ‘sell’ with a bare countable NP is ambiguous between an atelic and a telic interpretation, as shown in (78a). It can appear with both types of the temporal adverbials, as in (78b).

- (78) a. Naomi-ga ie-o ur-ta.
 Naomi-NOM house-ACC sell-PAST
 ‘Naomi sold a house/houses.’
 b. Futuka-*{kan/de}* Naomi-ga ie-o ur-ta.
 Two.days-for/in Naomi-NOM house-ACC sell-PAST
 ‘Naomi sold houses for two days./Naomi sold a house in two days.’

Given that an *in*-adverbial locates the bound of the event within or at the end of the stated interval, the acceptability with *futuka-de* ‘in two days’ indicates that the verb involves a bound of the event (i.e. telic). On the other hand, the acceptability with *futuka-kan* ‘for two days’ indicates the *for*-adverbial can modify the duration of the event denoted by the verb *ur(u)* ‘sell’. I thus assume that the verb *ur(u)* ‘sell’ is inherently durative, but is underspecified for telicity.

As mentioned above, the NP followed by a classifier forces a delimited reading of the event, while mass NP forces a non-delimited reading. This is evident from the (in)compatibility of these two temporal adverbials, as illustrated in (79).

- (79) a. Futuka-*{*kan/de}* Yufuin-cho-ga ie-o 1-ken ur-ta.
 two.days-for/in Yufuin-town-NOM house-ACC 1-CL sell-PAST
 ‘Yufuin town sold a house *{*for/in}* two days.’
 b. Futuka-*{kan/*de}* Yufuin-cho-ga onsensui-o ur-ta.
 two.days-for/in Yufuin-town-NOM hot.spring.water-ACC sell-PAST
 ‘Yufuin town sold hot spring water *{for/*in}* two days.’

The verb *ur(u)* ‘sell’ is common among (78) and (79). As the examples (80) show, they pattern alike in the acceptability of the temporal adverbials. When the object NP is a countable NP without a classifier, both temporal adverbs are compatible with the

standard *te-i(ru)* form, as in (80a). Replacing a bare NP with a NP followed by a classifier or an indefinite mass noun obligatorily changes the whole event into an achievement or an activity, respectively, as shown in (80b) and (80c).

- (80) a. Futuka-{kan/de} Naomi-ga ie-o ur-te-i-ta.
 two.days-for/in Naomi-NOM house-ACC sell-GER-AUX-PAST
 ‘Naomi was selling houses for two days.’
 ‘Naomi was selling a house in two days.’
 b. Futuka-{*kan/de} Yufuin-cho-ga ie-o 1-ken ur-te-i-ta.
 two.days-for/in Yufuin-town-NOM house-ACC1-CL sell-GER-AUX-PAST
 *‘Yufuin town was selling a house for two days.’
 ‘Yufuin town was selling a house in two days.’
 c. Futuka-{kan/*de} Yufuin-cho-ga onsensui-o
 two.days-for/in Yufuin-town-NOM hot.spring.water-ACC
 ur-te-i-ta.
 sell-GER-AUX-PAST
 ‘Yufuin town was selling hot spring water for two days.’
 *‘Yufuin town was selling hot spring water in two days.’

Now consider the QEC. The QEC allows only durative and atelic verbs, and has only a progressive meaning. The prediction is thus that the QEC is consistent only with a durative adverbial, i.e. *for*-adverbial. This is indeed true, as shown in (81). Contrary to the aspectual auxiliary construction, the QEC is always incompatible with the punctual adverb irrespective of the choice of object NPs. When construed as telic with the *in* temporal adverbial, the QEC sentences (81) become anomalous under the unbounded reading.

- (81) a. Futuka-{kan/*de} ie-ga ur-te-i-ta.
 two.days-for/in house-NOM sell-GER-exist-PAST
 ‘A house was for sale {for/*in} two days.’
 ‘Houses were for sale {for/*in} two days.’
 b. Futuka-{kan/*de} ie-ga 1-ken ur-te-i-ta.
 two.days-for/in house-NOM 1-CL sell-GER-exist-PAST
 ‘A house was for sale {for/*in} two days.’
 c. Futuka-{kan/*de} onsensui-ga ur-te-i-ta.
 two.days-for/in hot.spring.water-NOM sell-GER-exist-PAST
 ‘Hot spring water was for sale {for/*in} two days.’

Finally, existential sentences, as statives, must be atelic, regardless of the verb type, with animate *i(ru)* in (82) or inanimate *ar(u)* in (83). They are unacceptable with an *in* temporal adverbial.

- (82) Futuka-{kan/*de} gakkou-ni Ken-ga i-ta.
 two.days-for/in school-LOC Ken-NOM exist-PAST

- (83) a. Futuka- $\{\text{kan}/\text{*de}\}$ heya-ni ringo-ga ar-ta.
 two.days-for/in room-LOC apple-NOM exist-PAST
 ‘There were apples/an apple in the room $\{\text{for}/\text{*in}\}$ two days.’
 b. Futuka- $\{\text{kan}/\text{*de}\}$ heya-ni hon-ga 1-satu ar-ta.
 two.days-for/in room-LOC book-NOM 1-CL exist-PAST
 ‘There was a book in the room $\{\text{for}/\text{*in}\}$ two days.’
 c. Hyakunenn- $\{\text{kan}/\text{*de}\}$ katute sono-wakusei-ni mizu-ga ar-ta.
 hundred.year-for/in once that-planet-LOC water-NOM exist-PAST
 ‘Once there was water in that planet $\{\text{for}/\text{*in}\}$ a hundred year.’

What is relevant for the discussion is that the QEC patterns with the true existential sentence in aspect and telicity. I will argue that the durativity and the telicity in the QEC come from the property of the existential verb *i(ru)* in Section 3.4.

Let me summarize the discussion. First, as it is often claimed that a progressive meaning can be obtained with a durative verb, I showed that one factor that governs the acceptability of QEC is durativity. The verbal noun construction (VN+*suru* constructions) in the QEC can be used to show that only durative predicates are acceptable, but not instantaneous predicates lacking durativity. Further evidence from the QEC with V_1 - V_2 compounds led to the conclusion that the QEC is also sensitive to telicity. Finally, the incompatibility with an *in*-adverbial also confirms that the QEC must be atelic. Comparing the QEC with the aspectual auxiliary construction, I showed that the aspectual auxiliary construction does not impose such an atelicity constraint on predicates. That is, the verbs in this construction simply have different interpretations depending on the inherent aspectual properties of predicates, the singular/plural or mass readings of nouns, and temporal modifiers. An important matter that should be noted concerning the durativity and the telicity is that, as stative verbs, the existential verbs *i(ru)* and *ar(u)* are lexically durative and atelic.

2.2.5 Verbs Compatible with the QEC Section 2.2.4 showed that, unlike the auxiliary *i(ru)*, *i(ru)* in the QEC selects a verb of a particular aspectual type (i.e. a durational and atelic verb). The prediction would thus be that durative and atelic predicates are all acceptable with the QEC. Yet, as mentioned in Section 1, not all the verbs, even if they are durative and atelic, can occur in the QEC. Even though I am unable to specify exact conditions that single out verbs compatible with the QEC, I list more verbs that can participate in the QEC. Then, I show that they behave similarly with respect to argument realization, and the presence of locative *ni*.

For example, the QEC is not possible with the verb *yuras(u)* ‘swing’, which is supposed to be an atelic and durative verb, as illustrated in (84).

- (84) a. Naomi-ga yurikago-o yuras-u.
 Naomi-NOM cradle-ACC swing-PAST
 ‘Naomi rocks the cradle.’
 b. Yurikago-o yurasi-te-i-ru.
 cradle-ACC swing-GER-AUX-PRES

- ‘(They) are rocking the cradle.’
 c. *Yurikago-ga yurasi-te-i-ru.
 cradle-NOM swing-GER-exist-PRES
 ‘The cradle is rocked.’

In addition to the requirement for durativity and atelicity, the facts suggest the existence of further conditions.

Let us see what kinds of verbs can appear in the QEC. In fact, the QEC is not restricted to the verb *ur(u)* ‘sell’ (or ‘sell’ variants) and other verbs are fully compatible with the QEC. Looking at the verbs in (85), all the verbs can be classified as “caused possession” verbs.

(85) Caused possessive verbs

ur(u) ‘sell’, *hanbai-su(ru)* ‘sell’, *yasu-uri-su(ru)* ‘undersell’,
mae-uri-su(ru) ‘sell in advance’, *kas(u)* ‘lend/rent’, *kasi-das(u)*
 ‘lease/check out’, *rentaru-su(ru)* ‘rent’, *uri-das(u)* ‘offer’, *uri-hazime(ru)*
 ‘begin to sell’, *zyouei-su(ru)* ‘present’, *zyouen-su(ru)* ‘perform’, *yar(u)*
 ‘give/show’

Take the predicates *zyouei-su(ru)* ‘show’ and *rentaru-su(ru)* ‘rent’ as examples. The canonical case marking is nominative-ACCusative as in (86).

- (86) a. (Toei-ga) Furansu-no-eiga- $\{o/*ga\}$ zyoueisi-ta.
 Toei-NOM France-GEN-movie-ACC/NOM show-PAST
 ‘(Toei) showed the French movie.’
 b. (Tutaya-ga) Furansu-no-DVD- $\{o/*ga\}$ rentarusi-ta.
 Tutaya-NOM France-GEN-film-ACC/NOM rent-PAST
 ‘(Toei) rented the French DVDs.’

All of the verbs in (85) can be at least durative and atelic in that they have a progressive meaning with the standard *te-i(ru)* form, and they disallow *in*-adverbials modifying the terminal point of the event denoted by the main predicate, as shown in (87).

- (87) a. Futuka- $\{*de/kan\}$ Furansu-no-eiga- $\{o/*ga\}$ zyoueisi-ta.
 two.days-in/for France-GEN-movie-ACC/NOM show-PAST
 ‘(They) showed the French movie $\{*in/for\}$ two days.’
 b. Futuka- $\{*de/kan\}$ Furansu-no-DVD- $\{o/*ga\}$ rentarusi-ta.
 two.days-in/for France-GEN-film-ACC/NOM rent-PAST
 ‘(They) showed the French DVDs $\{*in/for\}$ two days.’

When these verbs are in the *te-i(ru)* form, alternative case marking, i.e. accusative case on the theme argument, is found, as illustrated in (88). There is a grammatical

contrast between (86) and (88), depending on whether the verb is in the *te-i(ru)* form or not.

- (88) a. Furansu-no-eiga-ga zyoueisi-te-i-ta.
 France-GEN-movie-NOM show-GER-exist-PAST
 ‘The French movies was showing.’
 b. Furansu-no-DVD-ga rentarusi-te-i-ta.
 France-GEN-film-NOM rent-GER-exist-PAST
 ‘The French DVDs were rented.’

As shown in the previous sections, the QEC has the following properties: the absence of agent/goal and compatibility with the *ni* locative. This is also true of other verbs listed in (85). First, the agentivity tests in (89) and (90) confirm that the agent argument is entirely missing in the QEC (88).

- (89) a. *Toei-ga Furansu-no-eiga-ga zyoueisi-te-i-ta.
 Toei-NOM France-GEN-movie-NOM show-GER-exist-PAST
 ‘(Intended) Toei showed the French movies.’
 b. *Furansu-no-eiga-ga Toei-niyotte zyoueisi-te-i-ta.
 France-GEN-movie-NOM Toei-by show-GER-exist-PAST
 ‘The French movies were played by Toei.’
 c. *Sibusibu/wazato Furansu-no-eiga-ga zyoueisi-te-i-ta.
 reluctantly/deliberately France-GEN-movie-NOM show-GER-exist-PAST
 ‘The French movies were played reluctantly/deliberately.’
 d. *[PRO kodomo-o tanosimaseru tameni] Furansu-no-eiga-ga
 children-ACC amuse PUR France-GEN-movie-NOM
 zyoueisi-te-i-ta
 show-GER-exist-PAST
 ‘The French movies were played to amuse the children.’
 (90) a. *Tsutaya-ga Furansu-no-DVD-ga rentarusi-te-i-ta.
 Tsutaya-NOM France-GEN-DVD-NOM rent-GER-exist-PAST
 ‘(Intended) Tsutaya rented the French DVDs.’
 b. *Furansu-no-DVD-ga Tsutaya-niyotte rentarusi-te-i-ta.
 France-GEN-DVD-NOM Tsutaya-by rent-GER-exist-PAST
 ‘The French DVDs were rented by Tsutaya.’
 c. *Sibusibu/wazato Furansu-no-DVD-ga rentarusi-te-i-ta.
 reluctantly/deliberately France-GEN-DVD-NOM rent-GER-exist-PAST
 ‘The French DVDs were rented reluctantly/deliberately.’
 d. *[PRO geizyutu to bunka-o syoukaisuru tameni]
 art and culture-ACC introduce PUR
 Furansu-no-DVD-ga rentarusi-te-i-ta
 France-GEN-movie-NOM rent-GER-exist-PAST
 ‘The French DVDs were rented to introduce (French) art and culture.’

Second, the goal argument is also missing. As shown in (91), the QEC sentences with the goal arguments become ungrammatical.

- (91) a. *Furansu-no-eiga-ga kodomotati-ni zyoueisi-te-i-ta.
 France-GEN-movie-NOM children-to show-GER-exist-PAST
 ‘The French movie was showing to the children.’
 b. *Furansu-noDVD-ga kodomotati-ni rentarusi-te-i-ta.
 France-GEN-movie-NOM children-to rent-GER-exist-PAST
 ‘The French movie was rented to the children.’

Finally, the entity-denoting locative *ni* can be used in the QEC.¹²

- (92) Tutaya-{ni/de} Furansu-no-DVD-ga rentarusi-te-i-ta.
 Tutaya-LOC Franch-GEN-DVD-NOM rent-GER-exist-PAST
 ‘At Tsutaya, the French DVD was rented.’

Furthermore, there is a small set of verbs that are telic but can still appear in the QEC. Crucially, however, those verbs must be negated in the QEC.¹³

- (93) Caused motion verbs
hos(u) ‘hang out’, *ok(u)* ‘put’, *kazar(u)* ‘decorate’, *sim(u)* ‘keep’, *har(u)* ‘post’, *keizi-su(ru)* ‘post’, *sas(u)* ‘pin’
Message transfer verbs
kak(u) ‘write’, *inyou-su(ru)* ‘quote’

Take the verb *hos(u)* ‘hang out’ as an example. The transitive verb *hos(u)* ‘hang out’ cannot assign nominative case to the theme argument without the *te-i(ru)* form, as illustrated in (94a). Even with the *te-i(ru)* form, the nominative-marked sentence in (94b) does not sound perfect to several native speakers, including me, but the counterpart with sentential negation, (94c) is felicitous.¹⁴

- (94) a. Futon-{o/ga} hosi-ta.
 futon-ACC/NOM hang.out-PAST

¹² Note that as for locative licensing (see section 2.2.3), the *ni* locative which denotes the location of an entity cannot appear in the QEC with the verb *zyouei-su(ru)* ‘show’. This is because the NP *eiga* ‘movie’ is construed as an event, which requires the *de*-marked location

¹³ The verbs in (93) are not necessarily atelic. It is worth pointing out that despite their lexical telicity, they are available only under negation. The verbs in (93) pose two mysteries that I do not fully understand at this moment. First, it is not clear why negation makes it possible for these verbs to appear in the QEC. Second, even with negation, a large number of verbs just cannot be used in the QEC. Although it is an interesting and significant issue, I will leave further investigation of (93) for future research.

¹⁴ It is crucially important to notice here that I use *i-na-i* as the negation of *i(ru)*, instead of *na-i*. If *na-i* is used, the entire sentence becomes a negation of V-*te-ar(u)* (see Section 2.1).

- ‘(Someone) hung out the futon (to dry).’
 b.??Futon-ga hosi-te-i-ta.
 futon-ACC/NOM hang.out-PAST
 ‘The futon was hung out (to dry).’
 c. Saikin kousou-mansyon-ni-(wa) futon-ga
 recently high.rise-apartment-LOC-TOP futon-NOM
 hosi-te-i-na-i.
 hang.out-GER-exist-NEG-PRES
 ‘Recently at the high-rise apartments, futons are not hung out.’

Other examples with the verbs in (93) are shown in (95).

- (95) a. Sono biyouin-ni-(wa) zassi-ga oi-te-i-nakat-ta.
 that hair.salon-LOC-TOP magazine-NOM put-GER-exist-NEG-PAST
 ‘There were no magazines in the hair salon.’
 b. Heya-ni kurisumasu.turii-ga kazar-te-i-nakat-ta.
 room-LOC Christmas.tree-NOM decorate-GER-exist-NEG-PAST
 ‘No Christmas trees were decorated in the room.’
 c. Ankeeto-ni koj-in-jouhou-ga kai-te-i-na-i
 questionnaire-LOC personal-information-NOM write-GER-exist-NEG-PRES
 baai mukou-ninar-u.
 if invalid-become-PRES
 ‘If your personal information is not written in the questionnaire, it will become invalid.’

The *ni* locative in (94c) is worth mentioning here. The verb *hos(u)* takes its own *ni* locative as shown in (96). Hence it is not clear whether the *ni* locative in the QEC (94c) indicates the location referred to by the predicate *hos(u)* or the place of the entity *futon*.

- (96) Futon-o beranda-ni hosi-ta.
 futon-ACC balcony-LOC hang.out-PAST
 ‘(Someone) hung out the futon (to dry) on the balcony.’

In (96), the locative indicates the place where the futon was hung out. However, notice that the *ni* locative in the QEC (94c) does not refer to the place where the futon is hung out. Rather it indicates the place where the futon exists (in a broad sense). That the location marked by *ni* locative (i.e. *at the high-rise apartments*) in the QEC (94c) is not the locative licensed by the verb *hos(u)* is demonstrated by the infelicity of the same locative in the normal transitive sentence (97).

- (97) #Futon-o kousou-mansyon-ni hosi-ta.
 futon-ACC high.rise-apartment-LOC hang.out-PAST

‘(Intended) (Someone) hung out the futon to the high-rise apartment.’

This shows that the construction as in (94c) is considered to be the QEC.

2.3 Interim Summary

Summarizing this section, I have shown that in the QEC, the theme argument is case-marked by the nominative case, in contrast with the aspectual auxiliary construction. I observed that the verb *i(ru)* in the QEC exhibits similarities with the existential verb *i(ru)*, as summarized in (98). However, I am not arguing that *i(ru)* in the QEC is identical to an existential *i(ru)*. It in fact patterns with the aspectual verb *i(ru)* in that it assigns a progressive interpretation and does not require an animate subject.

- (98) Similarities between *i(ru)* in the QEC and the existential verb *i(ru)*
 - a. An agent argument cannot appear.
 - b. A goal argument cannot appear.
 - c. A *ni*-LOCative cannot appear.
 - d. A durative and atelic interpretation is necessary.
- (99) Dissimilarities between *i(ru)* in the QEC and the existential verb *i(ru)*
 - a. The verb *i(ru)* in the QEC functions as an aspectual auxiliary.
 - b. The verb *i(ru)* in the QEC is immune to animacy requirement.

The results of the comparison of various constructions are summarized in Table 1.

	Passive	Intransitive	AAC	QEC	Existential
Agent	✓	*	✓	*	*
Goal	✓	✓	✓	*	*
<i>De</i> -LOCative	✓	✓	✓	✓	✓
<i>Ni</i> -LOCative	*	*	*	✓	✓
Durativity	± durative	± durative	± durative	+durative	+durative
Telicity	± telic	± telic	± telic	−telic	−telic
Animacy	± animate	± animate	± animate	± animate	+animate (<i>i</i>)
					−animate (<i>ar</i>)

Table 1

With this background, I am now ready to make my proposal that the QEC mixes the properties of an aspectual auxiliary and an existential verb in the next section.

3 PROPOSALS

I have shown that the verb *i(ru)* in the QEC differs from the aspectual auxiliary *i(ru)* in several respects. This section shows that the properties of the QEC follow primarily from the status of a full verb (i.e. an existential verb), *i(ru)*, interacting with the preceding V_1 verb in the argument structure as well as in syntax.

In Section 3.1, I propose a syntactic structure for the QEC, i.e. a complex predicate structure. As evidence in support of the proposed structure, I show that *pro* is involved and a nominative NP is a grammatical subject.

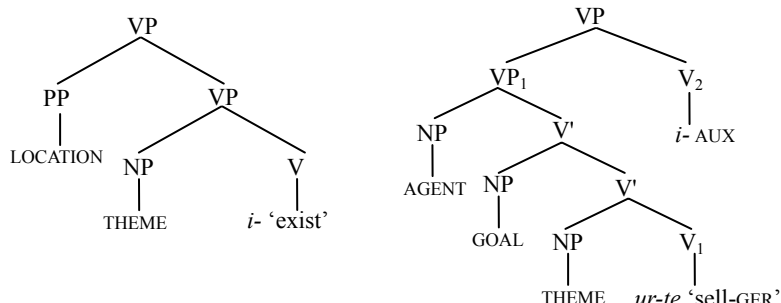
Turning next to how arguments are projected in the proposed structure, Section 3.2 gives an overview of general facts regarding the argument structure in other Japanese verbal compounds and shows that the argument structure of the QEC is similar to that of other V_1 – V_2 compounds. Given that the QEC falls under V_{trans} – V_{unacc} compounds, I propose a general principle of Argument Unification, which suppresses the non-shared arguments of the non-head verb in the argument structure of the compound verb. I then demonstrate that this explains the absence of agent/goal arguments in the QEC and certain types of complex predicates. Furthermore, in Section 3.3 and Section 3.4, I show that the licensing of the *ni* locative and the aspectual restrictions discussed in the previous sections follow from the property of the existential verb *i(ru)* in a complex predicate with V_1 . In Section 3.5, I present further evidence involving about negation that the QEC is an existential construction. Finally, Section 3.6 takes a brief look at the diachronic development of and changes in existential verbs in Japanese and, considers the recent development of the QEC and its current status in the diachronic context.

3.1 The Syntactic Structure

First, I follow the standard assumption that the lexical verb *i(ru)* ‘exist’ in (100a) and the aspectual auxiliary construction in (100b) have the structures, (101a) and (101b) (cf. Mihara 1997). Given the VP-internal subject hypothesis, the existential verb *i(ru)* ‘exist’ takes a theme and a locative argument, whereas the auxiliary verb *i(ru)* takes a VP complement (including agent, theme, and goal arguments). The syntactic structures are illustrated in (101). (See Kishimoto 2000 for detailed syntactic analysis of existential sentences.)¹⁵

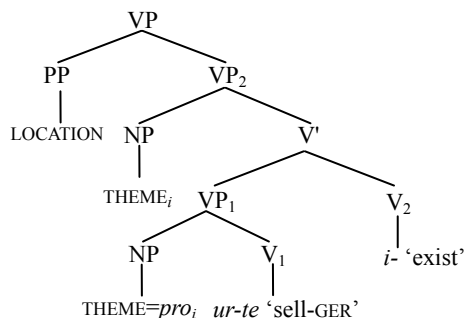
¹⁵ Although the existential verb *i(ru)* has a locative argument, I will assume, following Kishimoto (2000), that it is mapped to a VP adjoined position. The unmarked word order would thus be location-theme. According to Muromatsu (1998) and Tomioka (2007), an existential sentence with location-theme word order is ambiguous between locative and possessive interpretations, while theme-location order only receives a locative interpretation. Muromatsu (1998) shows structural differences between the two readings. Tomioka (2007), however, argues that the ambiguity comes from the information structure rather than the syntactic structure. It should be noted, however, that nothing hinges on my assumption in the discussion in this paper.

- (100) a. Niwa-ni Naomi-ga i-ru.
garden-LOC Naomi-NOM exist-PRES
'Naomi is in the garden.'
- b. Naomi-ga gakusei-ni ringo-o ur-te-i-ru.
Naomi-NOM student-to apple-ACC sell-GER-exist-PRES
'Naomi is selling apples to students.'
- (101) (a) Existential *i(ru)* (b) Auxiliary *i(ru)*



As shown in the previous section, the verb *i(ru)* in the QEC behaves like an existential verb in that it takes theme and location arguments. Nevertheless, it maintains its aspectual properties as an auxiliary in that it assigns a progressive meaning to the verb it is attached to. That is, the verb *i(ru)* in the QEC shows an amalgamation of existential features and aspectual features. Thus, I argue that the verb *i(ru)* in the QEC is not only an auxiliary (i.e. aspectual auxiliary), but also a full verb (i.e. an existential verb). The existential verb *i(ru)* forms a complex predicate structure as a head verb, as illustrated in (102). Adopting the claim that existential verbs are unaccusative (cf. Burzio 1986, Levin and Rappaport Hovav 1995, and others), I assume that the existential verb *i(ru)* is unaccusative, too. Thus, the first transitive verb (V_1) and the second unaccusative verb (V_2) function as a V_1 - V_2 compound (a transitive-unaccusative compound).

- (102) Honya-ni zassi-ga ur-te-i-ru.
book.store-LOC magazine-NOM sell-GER-exist-PRES
'Magazines are for sale in the bookstore.'



Just like the lexical existential verb in (100a), the verb *i(ru)* (V_2) selects a theme subject. It is unlike the lexical existential verb *i(ru)* but similar to the auxiliary *i(ru)* in that it takes a VP complement. The VP complement does not have an agent and an goal argument, and has only theme *pro* argument co-indexed with the theme argument of the existential verb (V_2).¹⁶ Assuming this syntactic structure, we need to solve the questions why the agent and goal arguments of V_1 cannot appear in syntax and why the theme argument of V_1 is a *pro*. The former issue will be discussed in Section 3.2.2 after examining general facts about Japanese V_1 - V_2 compounds in Section 3.2.1.

The claim that the verb *i(ru)* in the QEC is an existential verb is supported by the following question and answer examples, where the answer involves a typical existential verb. When a question is asked with the QEC, it is possible to use an (inanimate) existential verb *ar(u)* for the reply, as in (103).

- (103) Q: Seven-Eleven-ni zutuuyaku-ga ur-te-i-ru-no?
 Seven-Eleven-LOC headache.remedy-NOM sell-GER-exist-PRES-Q
 ‘Are headache remedies for sale at Seven Eleven?’
 A: Tabun ar-u-to-omou.
 probably exist-PRES-COMP-think
 ‘Probably (I) think that there are (headache remedies at Seven Eleven).’

This existential response is not possible, however, as an answer to a question with the canonical auxiliary verb *i(ru)*. In (104), where the theme is case-marked accusative, the existential answer as in A1 is anomalous and we need to answer as in A2.

- (104) Q: Seven-Eleven-ni zutuuyaku-o ur-te-i-ru-no?
 Seven-Eleven-LOC headache.remedy-ACC sell-GER-exist-PRES-Q
 ‘Are headache remedies for sale at Seven Eleven?’
 A1: #Tabun ar-u-to-omou.
 probably exist-PRES-COMP-think
 ‘Probably (I) think that there are (headache remedies at Seven Eleven).’
 A2: Tabun ur-te-i-ru-to-omou.
 probably sell-GER-AUX-PRES-COMP-think
 ‘Probably (I) think that (they) are selling (headache remedies at Seven Eleven).’

The reply with the pure existential verb shows that the QEC is an existential construction, whereas the aspectual auxiliary construction is not.

3.1.1 The Existence of pro: Idiom Chunks Let us turn to the existence of *pro* in the QEC. I show that idiom chunk evidence confirms that there is a *pro* in the structure of the QEC. It has been claimed that a part of idiom can undergo raising without losing its idiomatic meaning (e.g. passive and raising constructions in (105a))

¹⁶ Whether the null element in question is a *pro* or PRO is immaterial here. I just assume that it is a (obligatorily controlled) *pro* given the standard assumption that PRO cannot be in a governed position.

and (105b)). In a control structure, on the other hand, an idiomatic interpretation is unavailable, as shown in (105c).

- (105) a. (Unfair) advantage continues to be taken of the refugees.
 b. (Unfair) advantage is taken of the refugees.
 c. * (Unfair) advantage tries to be taken of the refugees.

In Japanese, when an object is a part of an idiom as in (106a), passivization (106b) retains the idiomatic interpretation. However, the QEC sentence (106c) does not preserve the original idiomatic meaning. This observation suggests that the QEC has a control structure.

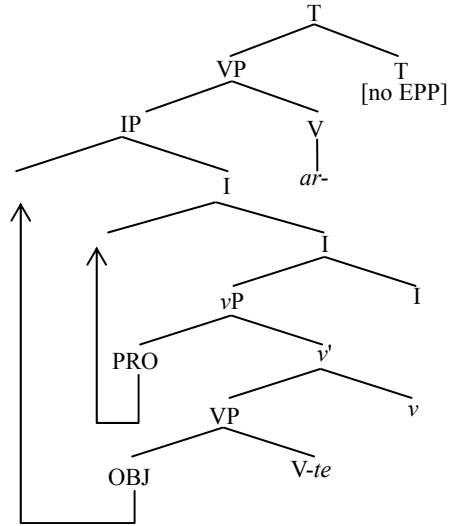
- (106) a. Kenka-o ur-u
 quarrel-ACC sell-PRES
 ‘to provoke someone to a quarrel’
 b. Kenka-ga ur-are-ru.
 quarrel-ACC sell-PASS-PRES
 ‘A quarrel is raised to (someone).’
 c. * Kenka-ga ur-te-i-ru.
 quarrel-ACC sell-PASS-PRES
 ‘A quarrel is raised to (someone).’

The unavailability of idiomatic interpretations in the QEC contrasts with the *te-a(ru)* construction. The examples in (207) adopted from Miyagawa and Babyonyshev (2004) show that the *te-a(ru)* form preserves the idiomatic meaning unlike the QEC. In the intransitivizing resultative, as in (107b) passive formation, the object NP involves A-movement, i.e. raising.

- (107) a. Sigoto-o sewa-su-ru
 work-ACC take.care-do-PRES
 ‘introduce (someone) to a job’
 b. Kare-ni sigoto-ga sewa-s-are-ta.
 he-DAT work-NOM take.care-do-PASS-PAST
 ‘A job was introduced to him.’
 c. Kare-ni-(wa) (mou) sigoto-ga sewa-si-te-ar-u.
 he-DAT-TOP already work-NOM take.care-do-GER-AUX-PRES
 ‘job has (already) been introduced to him.’

From the evidence that the intransitivizing resultative is parallel to the corresponding passive, Miyagawa and Babyonyshev (2004) propose the structure for the intransitivizing resultative shown in (108).

(108)



Following their proposal for the *te-a(ru)* form, we can assume that the *te-i(ru)* in the QEC does not involve A-movement. Rather, it has a control structure, as proposed above.

3.1.2 The Subjecthood of the Nominative NP in the QEC In the previous section, I presented evidence from idiom interpretation that the nominative NP in the QEC is not raised. Rather, it controls a *pro* in the object position. This section further examines evidence that the nominative-marked NP in the QEC is a grammatical subject, not a grammatical object. Here I use two different types of syntactic tests for subjecthood in Japanese, PRO control in an adverbial clause and subject honorification.

The first piece of evidence comes from control of an adverbial clause. The subject of the adverbial clause must be controlled by the subject of the main clause (cf. Matsumoto 1996). Take an adverbial, *zuni* ‘without’ clause, as an example. The PRO subject of the *zuni* clause in (109a) is controlled by the grammatical subject (i.e. *Ken*). However, in the passive (109b), the grammatical subject of the main clause is *sono hon* ‘the book’, not *Ken*. The PRO subject thus fails to be controlled by the agent *Ken*.

- (109) a. [PRO(subj)_i yoma zuni], Ken_i-ga hon-o sute-ta.
 read without Ken-NOM book-ACC throw.away-PAST
 ‘Ken threw the book away without reading (it).’
 b. [PRO(subj)_i yoma zuni], sono hon-ga Ken_i-niyotte
 read without the book-NOM Ken-by
 sute-rare-ta.
 throw.away-PASS-PAST
 ‘The book was thrown away by Ken without reading (it).’

Let me turn to the QEC. The nominative-marked NP in the QEC can control an unexpressed grammatical subject (i.e. the PRO subject of the passive form) in a *zuni* ‘without’ clause, as in (110a), whereas the corresponding accusative-marked NP in the aspectual auxiliary construction cannot as in (110b). As shown in (110c), the nominative NP in the passive can properly control the PRO.

- (110) a. [PRO(subj)_i reitou-s-are zuni], maguro_i-ga ur-te-i-ru.
freeze-do-PASS without tuna-NOM sell-GER-exist-PRES
‘Tunas are for sale without being frozen.’
b. * [PRO(subj)_i reitou-s-are zuni], maguro_i-o ur-te-i-ru.]
freeze-do-PASS without tuna-ACC sell-GER-exist-PRES
‘(Someone) is selling tunas without being frozen.’
c. [PRO(subj)_i reitou-s-are zuni], maguro_i-ga ur-are-ta.
freeze-do-PASS without tuna-ACC sell-PASS-PAST
‘Tunas were sold without being frozen.’

A second piece of evidence for subjecthood is honorification. In Japanese, when a subject NP is considered socially superior to the speaker, it triggers honorification which puts a specific honorific marker (e.g. *(g)o-V-ninar*) on the predicate (Kuno 1973, 1987, Shibaani 1978, Harada 1976, among others). In a sentence like (111a), where the subject NP is *Prof. Tanaka*, and the object is *the student*, subject honorification is acceptable. On the other hand, when the object is a professor and the subject is a student, subject honorification is unacceptable as in (111b).

- (111) a. * Tanaka-sensei-ga seito-o o-home-ninar-ta.
Tanaka-Prof.-NOM student-ACC HON-admire-HON-PAST
‘Prof. Tanaka admired the student.’
b. * Seito-ga Tanaka-sensei-o o-home-ninar-ta.
student-NOM Tanaka-Prof.-ACC HON-admire-HON-PAST
‘The student admired Prof. Tanaka.’

Thus, subject honorification may be used to test for a grammatical subject. For instance, in the dative subject construction, the dative NP in (112) can trigger subject honorification.

- (112) *Sensei-ni-(wa) eigo-ga o-wakari-ninar-u.
Teacher-dat-TOP English-NOM HON-understand-HON-PRES
‘The teacher understands English.’ (Sibatani 2001:319)

Th general claim has been that the NP triggering honorification should be a human whom the speaker respects, which means only [+human] NPs can trigger honorification. A non-human NP as in (113) turns out to be unacceptable with subject honorifics.

- (113) *Ame-ga o-fur-ininar-ta.
 rain-NOM HON-fall-HON-PAST
 ‘It rained.’

Yet, it has been observed in Harada (1976:539) that an NP with a [+human] possessor also triggers honorification. (See also Takahashi 1994 and Vermeulen 2005 for possessive subject honorification.) A possessive subject like *Prof. Tanaka’s car* can be treated as a subject honorification trigger. (114) is thus acceptable with a subject honorific form (i.e. *go-V-ninar*).

- (114) [Tanaka-sensei-no o-kuruma]-ga go-toutyaku-ninar-ta.
 Tanaka-Prof.-GEN HON-car-NOM HON-arrive-HON-PAST
 ‘Prof. Tanaka’s car has arrived.’

Like (111), a subject honorific form cannot be licensed by a possessive NP in object position, as shown in (115a). In order to be appropriate with this subject honorific form, the subject itself should refer to a person socially superior to the speaker, as in (115b).

- (115) a. *Seito-ga [Tanaka-sensei-no kuruma]-o o-sagasi-ninar-ta.
 student-NOM Tanaka-Prof.-GEN car-ACC HON-search-HON-PAST
 ‘The student looked for Prof. Tanaka’s car.’
 b. Noda-sensei-ga [Tanaka-sensei-no kuruma]-o o-sagasi-ninar-ta.
 Noda-Prof.-NOM Tanaka-Prof.-GEN car-ACC HON-search-HON-PAST
 ‘Prof. Noda looked for Prof. Tanaka’s car.’

If the subject is not specified as a person whom the speaker respects, the sentence is infelicitous, as in (116).

- (116) *[Tanaka-sensei-no kuruma]-o o-sagasi-ninar-ta.
 Tanaka-Prof.-GEN car-ACC HON-search-HON-PAST
 ‘(They) looked for the car of Prof. Tanaka.’

Before considering the QEC with subject honorification, I first present the behavior of the (auxiliary) verb *i(ru)* with regard to subject honorification. Beside the regular honorific form, *(g)o-V-ninar*, there are “suppletive forms” for some verbs (cf. Harada 1976:506). The suppletive form replaces a whole honorific form *(g)o-V-ninar*. For instance, the subject honorific form for the verb *ku(ru)* ‘come’ is *mie*, not **o-ku-ninar*. This is also the case with the verb *i(ru)*: the suppletive form *irassyar* is used, as shown in (117).

- (117) Heya-ni Tanaka-sensei-ga irassyar-u.
 room-LOC Tanaka-Prof.-NOM HON.exist-PRES
 ‘Prof. Tanaka is in the room.’

The verb *ur(u)* ‘sell’ does not have a suppletive form. As expected, the honorific is *o-uri-ninar*, as in (118).

- (118) Noda-sensei-ga kuruma-o o-uri-ninar-u.
 Noda-Prof.-NOM car-ACC HON-sell-HON-PRES
 ‘Prof. Noda sells a car.’

When the sentences involve the aspectual auxiliary *i(ru)*, three subject honorifics are possible. First, the regular honorific affix is attached to the first verb, i.e. *o-V-ninar-te-i(ru)*, as in (119a). The second is that the suppletive honorific form is used in place of the verb *i(ru)*, i.e. *V-te-irassyar*, as in (119b). The third instance is a complex form where the affix *o-V-ninar* is attached to the first verb, and the suppletive form (i.e. *irassyar(u)*) is used for the second verb, as illustrated in (119c).

- (119) a. Noda-sensei-ga kuruma-o o-uri-ninar-te-i-ru.
 Noda-Prof.-NOM car-ACC HON-sell-HON-GER-AUX-PRES
 ‘Prof. Noda has sold a car./ Prof. Noda is selling a car.’
 b. Noda-sensei-ga kuruma-o ur-te-irassyar-u.
 Noda-Prof.-NOM car-ACC sell-GER-HON.AUX-PRES
 c. Noda-sensei-ga kuruma-o o-uri-ninar-te-irassyar-u.
 Noda-Prof.-NOM car-ACC HON-sell-HON-GER-HON.AUX-PRES

Consider then the QEC with the subject honorific form. The nominative NP including a possessor (i.e. *Prof. Tanaka*) is acceptable with the honorific form, as shown in (120), though it is somewhat degraded.

- (120) a.?? Atira-de Tanaka-sensei-no go-tyosyo-ga
 there-LOC Tanaka-Prof.-GEN HON-book-NOM
 o-uri-ninar-te-i-u.
 HON-sell-HON-GER-exist-PRES
 ‘Over there, Prof. Tanaka’s book is for sale.’
 b. Atira-de Tanaka-sensei-no go-tyosyo-ga
 there-LOC Tanaka-Prof.-GEN HON-book-NOM
 ur-te-irassyar-u.
 sell-GER-HON.exist-PRES
 c.?? Atira-de Tanaka-sensei-no go-tyosyo-ga
 there-LOC Tanaka-Prof.-GEN HON-book-NOM
 o-ur-ninar-te-irassyar-u.
 HON-sell-HON-GER- HON.exist-PRES

There are some speakers who do not like (120a) and/or (120c). This may be because the honorific form is attached to the first transitive verb (i.e. *ur(u)* ‘sell’) in these two examples. To the best of my knowledge, there is no discussion on the honorification with the aspectual form *te-i(ru)* in the literature.¹⁷ It is thus not clear how the three possible honorifics like (119) are indeed restricted. For now, leaving aside the question how the agent is suppressed, given the complex predicate analysis for the QEC, one explanation for the low acceptability of (120a) and (120c) would be that the absence of the agent argument of the V_1 precludes subject honorification on the V_1 . The aim of this section is however to demonstrate the subjecthood in the QEC, and, in this paper, I am indifferent about the difference of the acceptability in (120). What is crucial here is that subject honorification, which tests for subjecthood, is acceptable in the QEC. There is a sharp contrast with the aspectual auxiliary construction in (121). I here omit the subject from (121). Like (116), the star on the examples in (121) is intended to mean that the sentence is ungrammatical unless the subject is specified as the person whom the speaker shows respect for (cf. (115) and (116)).

- (121) a. * Atira-de Tanaka-sensei-no go-tyosyo-o
 there-LOC Tanaka-Prof.-GEN HON-book-ACC
 o-uri-ninar-te-i-u.
 HON-sell-HON-GER-exist-PRES
 ‘Over there, (they) are selling Prof. Tanaka’s book’
 b. * Atira-de Tanaka-sensei-no go-tyosyo-ga
 there-LOC Tanaka-Prof.-GEN HON-book-NOM
 ur-te-irassyar-u.
 sell-GER- HON.exist-PRES
 c. * Atira-de Tanaka-sensei-no go-tyosyo-ga
 there-LOC Tanaka-Prof.-GEN HON-book-NOM
 o-ur-ninar-te-irassyar-u.
 HON-sell-HON-GER- HON.exist-PRES

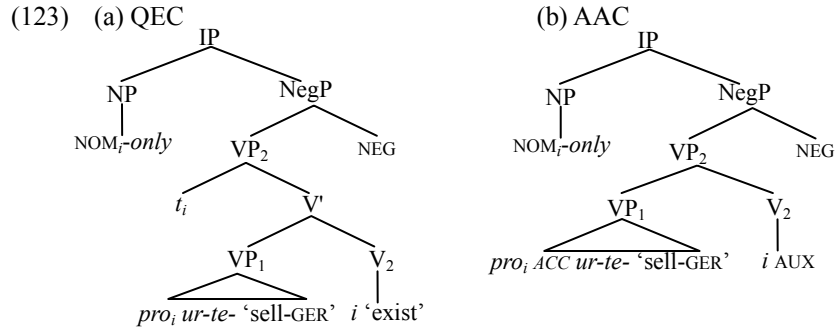
To summarize, evidence from PRO-control and subject honorification shows that the nominative theme NP in the QEC is a grammatical subject.

3.1.3 The Scope of Negation: only-Neg The complex predicate structure that I have proposed for the QEC is further supported by the scope of negation. The nominative NP in the QEC which is a subject of the verb *i(ru)* is structurally higher than negation. To see the relation between the scope of negation and the QEC’s syntactic structure, I consider the examples with *dake* ‘only’ without a strong accent.¹⁸

¹⁷ Discussions of Japanese compounds with aspectual verbs (e.g. *kaki-owar(u)* (write-cease) ‘cease to write’) are found in Shibatani (1973), Harada (1976), Kuno (1987), and Matsumoto (1996). The intransitive aspectual verb with the transitive V_1 only can take honorifics on the V_1 , but not on the V_2 (i.e. the aspectual verb). This is because the subject of the compound as a whole is raised from the V_1 and V_2 does not select a subject by itself. I have no idea to what extent this analysis can be carried over to the aspectual form *te-i(ru)*.

¹⁸ With a strong accent, *dake* ‘only’ can scope over the negation even in the case of aspectual

- (122) a. (Honya-ni) manga-dake-ga ur-te-i-naka-ta.
 book.store-LOC comics-only-NOM sell-GER-exist-NEG-PAST
 ‘(At the bookstore), only comics were not sold.’
 (only > not, *not > only)
- b. (Honya-ni) manga-dake-o ur-te-i-naka-ta.
 book.store-LOC comics-only-ACC sell-GER-exist-NEG-PAST
 ‘(At the bookstore) (they) were not selling only comics.’
 (?*only > not, not > only)



3.2 Argument Unification

In Section 3.1, I have claimed that the verb *i(ru)* in the QEC behaves as a full verb in syntactic respects and that the peculiar properties of the QEC follow from it. Yet, the issue remains unanswered why the agent and the goal arguments are not mapped onto the syntax. Assuming, as I have proposed in Section 3.1, that the V_1 and the V_2 , *i(ru)*, in the QEC are categorized under the verbal compound (i.e. transitive-unaccusative compounds), I will propose that the missing arguments are attributed to a requirement of Argument Unification.

Recall that the agent argument cannot be realized in the QEC (cf. Section 2.2.1). Although the verb *ur(u)* ‘sell’ (V_2) takes three arguments (agent, theme and possessive goal), the agent is absent in (45). The examples are repeated in (124).

- (124) a. *Sibusibu/wazato ringo-ga ur-te-i-ru.
 reluctantly/deliberately apple-NOM sell-GER-exist-PRES
 ‘The apples are for sale reluctantly/deliberately.’ (QEC)
- b. Sibusibu/wazato ringo-o ur-te-i-ru.
 reluctantly/deliberately apple-ACC sell-GER-AUX-PRES (AAC)
- c. Sibusibu/wazato ringo-ga ur-are-ta.
 reluctantly/deliberately apple-NOM sell-PASS-PAST
 ‘The apples were sold reluctantly/deliberately.’ (Passive)

auxiliary constructions like (122b). The behavior of focused phrases by a strong accent is beyond this paper, and I would like to examine only the cases without any focused element here.

(i) *kaki-agar(u)* (write-be.completed) 'be written up', *ni-tumar(u)* (boil-be.packed) 'become thick due to boiling', *ti-tuker(u)* (say-be.transmitted) 'be orally transmitted', *ori-magar(u)* (fold-bend) 'be bent', *musubi-tuk(u)* (fasten-be.attached) 'be connected'.

- (126) a. * John-ga sono-booru-ga sora takaku uti-agar-ta.
 John-NOM the ball-NOM sky high hit-go.up-PAST
 ‘John hit the ball high up in the sky.’
- b. * Sono-booru-wa sora takaku John-niyotte uti-agar-ta.
 the-ball-NOM sky high John-by hit-go.up-PAST
 ‘The ball was hit high up in the sky by John.’
 (Matsumoto 1996: 204)
- c. * Sono-booru-wa wazato uti-agar-ta.
 the-ball-NOM intentionally hit-go.up-PAST
 ‘The ball was hit up intentionally.’
- d. * Sono-booru-wa [PRO minna-o odorokasu tameni] takaku
 ehe-ball-NOM everyone-ACC surprise PUR high
 uti-agar-ta.
 hit-go.up-PAST
 ‘The ball was hit high up in the air so as to surprise everyone.’
 (Matsumoto 1996:204)

The generalization about transitive-unaccusative compounds is thus that the subject of V_2 is always the subject of the compound (see Matsumoto 1996, Nishiyama 1998 and Gamerschlag 2002 for the similar subject constraints). The question is why the agent argument of a transitive verb (V_1) is unexpressed in a verbal compound. This issue has been discussed in the literature since the suppression appears exceptional in terms of general verbal compound formation (cf. Kageyama 1993, Matsumoto 1996, 1998, Nishiyama 1998, Naumann and Gamerschlag 2003, Fukushima 2005, and many others). When verbal compounds involve symmetric verb types (i.e. transitive-transitive, unergative-unergative, or unaccusative-unaccusative) or a combination of verbs taking external arguments (i.e. transitive-unergative or unergative-transitive), no argument suppression is found, as shown in (127). Although the explanations may vary, there is agreement among scholars that “each of the component verbs forming a compound must have at least one argument which is semantically linked to an argument of the other component verb (Matsumoto 1996: 230)” (or θ -identification in Kageyama’s terms). Thus, in (127), at least one of the argument (i.e. x or y) is shared by V_1 and V_2 .

- (127) a. Transitive-Transitive
 $\langle x, y \rangle + \langle x, y \rangle \quad \langle x, y \rangle$
kir- ‘cut’ + *tor-* ‘take’ *kir-tor-* ‘cut-off’
- b. Unergative-Unergative/ Unaccusative-Unaccusative
 $\langle x \rangle + \langle x \rangle \quad \langle x \rangle$
ayum- ‘walk’ + *yor-* ‘come near’ *ayumi-yor-* ‘walk up’
suber- ‘slide’ + *otir-* ‘fall’ *suber-otir-* ‘slide off’
- c. Unergative-Transitive
 $\langle x \rangle + \langle x, y \rangle \quad \langle x, y \rangle$
nak- ‘cry’ + *haras-* ‘swell’ *naki-haras-* ‘cry (ones’s eyes) out’

d. Transitive-Unergative

$\langle x, y \rangle$ + $\langle x, y \rangle$ $\langle x, y \rangle$
sagas-‘search’+*mawar*-‘go.around’ *sagasii-mawar*- ‘search about’

What is distinctive about the verbal compounds like *uti-agar(u)* (hit-go.up) is that a non-shared argument of V_1 cannot be projected onto the syntax. The argument structure for transitive-unaccusative appears to be formed as illustrated in (128).

- (128) $\langle x, y \rangle$ + $\langle y \rangle$ $\langle y \rangle$
ut- ‘hit’ + *agar*- ‘go.up’ *uti-agar*- ‘go up by being hit’

There are two approaches to explaining the fact about the suppression of agent arguments: intransitivization and structural blocking. Kageyama (1993) proposes the “transitivity harmony principle” that requires V_1 and V_2 to involve an external argument. Under his proposal, the compounds with a transitive and an unaccusative verb are not possible due to a violation of the transitivity harmony principle. He thus postulates the operation ‘back formation’ which derives transitive-unaccusative compounds from corresponding transitive-transitive compounds. That is, these ‘exceptional’ transitive-unaccusative compounds are not subject to the principle.

Let us look at Kageyama’s explanation for the compound *uti-agar(u)* (hit-go.up). As shown in Section 1.2, the transitive and intransitive alternation involves morphological change. For example, the verb stem *ag-* becomes intransitive with the suffix *-ar*, as in (129a) while it becomes transitive with the suffix *-e*, as in (129b).

- (129) a. Booru-ga ag-ar-ta.
 ball-NOM go.up-INTR-PAST
 ‘The ball went up.’
 b. Ken-ga booru-o ag-e-ta.
 Ken-NOM ball-ACC go.up-TR-PAST
 ‘Ken lift the ball.’

When the transitive *ag-e* ‘lift’ takes a transitive verb *ut* ‘hit’ as V_1 , the verbal compound *uti-age* (hit-lift) is formed as in (130), which is considered as the transitive counterpart of *uti-agar* (hit-go.up).

- (130) Ken-ga sono-booru-o uti-age-ta.
 Ken-NOM the-ball-ACC hit-lift-PAST
 ‘Ken hit the ball up.’

Such a transitive-transitive compound does not block any arguments of V_1 and V_2 (cf. (127a). The compound *uti-age* (hit-lift) in (130) thus allows both agent and theme arguments to be realized. This contrasts with (126) where the agent argument of V_1 is completely missing. Kageyama claims that the transitive-unaccusative compound

uti-agar (hit-go.up) is ‘back formed’ from the transitive-transitive compound *uti-age* (hit-lift). A problem with Kageyama’s explanation is that he does not define what ‘back formation’ is. Although they do not follow Kageyama in several respects, Matsumoto (1996, 1998) and Fukushima (2005) argue for an intransitivization analysis. Kageyama, Matsumoto, and Fukushima do not give an explicit account for the suppression of the arguments, but they seem to assume that the process of intransitivization prevents the projection of the external argument to argument structure.²⁰ Once a compound with a transitive V_1 and a transitive V_2 is formed in the lexicon, with an argument structure $\langle x, y \rangle$, then intransitivization suppresses its external argument and produces an argument structure with only a single argument such as $\langle y \rangle$.

Apart from the issue of how intransitivization forces the agent argument of V_1 to be blocked, however, this account wrongly predicts that there are no transitive-unaccusative compounds which do not have corresponding transitive-transitive counterparts. Consider a compound *syaberi-tukareru* (speak-get.tired) in (131a), where V_1 is transitive and V_2 is unaccusative, as shown in (131b) and (131c). Despite the fact that there exists no transitive-transitive counterpart, the compound in (131a) is fully grammatical.

- (131) a. Naomi-ga syaberi-tukare-ta.
Naomi-NOM speak-get.tired-PAST
‘Naomi got tired from speaking (too much).’
b. Naomi-ga eigo-o syaber-ta.
Naomi-NOM English-ACC speak-PAST
‘Naomi spoke English.’
c. Naomi-ga tukare-ta.
Naomi-NOM get.tired-PAST
‘Naomi got tired.’

Likewise, under my assumption that the QEC involves a verbal compound with a transitive V_1 and an existential V_2 (i.e. *i(ru)*), which does not have a corresponding transitive counterpart, we cannot apply this intransitivization analysis to the QEC.

A different ‘structural’ explanation is found in Nishiyama (1998), and Naumann & Gamerschlag (2003). Adopting Kratzer’s (1996) theory of Voice Phrase, Nishiyama (1998) assumes that an external argument is not included in the immediate projection of VP, and proposes that an active Tr(ansitivity) head (i.e. the Voice head in Kratzer’s term) introduces an external argument of the verbal compound in its Spec position,

²⁰ One way of lexically explaining the suppression of an external argument is to assume “anticausativization” as proposed by Levin and Rappaport Hovav (1995) and Reinhart (2002). Given that the transitive-transitive compounds like *uti-age* (hit-lift) as in (130) involve causal relation: causing event denoted by V_1 and caused event denoted by V_2 in the semantic structure. Anticausativization is applied to transitive verbs whose external argument is CAUSE(R), and eliminates the causer. A compound with a transitive V_1 and a transitive V_2 , which involve causal relation, would undergo anticausativization, and derive the agentless compound, the V_{tr} - V_{unacc} compound like *uti-agar* (hit-go.up). However, as I show momentarily, it is not sufficient to account for all the facts regarding V_{tr} - V_{unacc} compounds. These compounds prevent goal arguments from being realized, and this would still remain a mystery.

whereas an inactive Tr does not. In the case of verbal compounds with a transitive V_1 and an unaccusative V_2 , an inactive Tr selects an unaccusative VP-shell, as illustrated in (132b).

- (132) a. Booru-ga uti-agar-ta.
 ball-NOM hit-go.up-PAST
 'The ball was hit up.'
- b.
-
- ```

graph TD
 TrP --> VP2
 TrP --> Tr["Tr
(inactive)"]
 VP2 --> NP1[NP]
 VP2 --> V_prime[V']
 NP1 --> booru["booru_i 'ball'"]
 V_prime --> VP
 V_prime --> V2[V2]
 VP --> NP2[NP]
 VP --> V1[V1]
 NP2 --> pro["pro_i"]
 V1 --> ut["ut 'hit'"]
 V2 --> agar["agar- 'go.up'"]

```

Given that the argument structure of the transitive verb *ut* 'hit' is <Theme> (or  $\lambda x \lambda e$  [hitting (e) & Theme (x)(e)] in Kratzer's representation). Unless this transitive verb is selected by the head of active Tr, the agent argument cannot surface. It follows that there is no agent argument in the embedded VPAST in (132b). Furthermore, the verbal compound *uti-agar* (hit-go.up) does not have an agent argument because the whole complex predicate is selected by an inactive Tr.

In line with the lexicalist approaches, Naumann & Gamerschlag (2003) assume argument identification, which appears to be slightly more complicated than what is proposed in Kageyama (1993) and Matsumoto (1996). Briefly put, the argument structure of the complex predicate with a transitive  $V_1$  and an unaccusative  $V_2$  is formed as follows:

- (133) 1. identify a single argument of an unaccusative  $V_2$  with the object argument of the transitive  $V_1$ .

$$\begin{array}{ccc} AS_1: \langle \text{agent}, \underline{\text{theme}} \rangle & & AS_2: \langle \underline{\text{theme}} \rangle \\ & \underbrace{\hspace{1.5cm}} & \\ & \theta \text{ identification} & \end{array}$$

2. delete the identified argument from the argument structure of  $V_1$  ( $AS_1$ ), yielding  $AS_1^+$ .

$$AS_1^+: \langle \text{agent}, \underline{\text{theme}} \rangle \quad AS_1^+: \langle \text{agent} \rangle$$

3. merge the argument structure of  $V_2$  ( $AS_2$ ) with  $AS_1^+$ , yielding the whole argument structure of the compound ( $AS_{12}$ ).

$$AS_1^+: \langle \text{agent} \rangle + AS_2: \langle \underline{\text{theme}} \rangle \quad AS_{12}: \langle \text{agent}, \text{theme} \rangle$$

The argument structure ( $AS_{12}$ ) in (133) involves an agent argument. In order to account for the fact that transitive-unaccusative compounds do not allow the agent to be realized, they postulate a rule that blocks agent realization based on their

assumption that an external argument is structurally higher than internal arguments.

The rule says that an argument of  $V_1$  is “structurally” blocked which (i) is not identified with an argument of  $V_2$ , and (ii) is structurally higher than the argument of  $V_1$  identified with an argument of  $V_2$ . Put simply, in the transitive-unaccusative compounds, the agent argument of  $V_1$  is not identified with any arguments of  $V_2$ , and is structurally higher than the theme, which is identified with that of  $V_2$  (Step 1 in (133)). Thus, the agent argument in the argument structure of the verbal compound ( $AS_{12}$ ) is not mapped onto the syntax.

These structural accounts either by Nishiyama or by Naumann & Gamerschlag seem plausible on the absence of the agent. Yet, if we examine the behavior of possessive goal arguments of these compounds, it is not clear how they can account for the fact that the compounds with a transitive (ditransitive)  $V_1$  and an unaccusative  $V_2$  do not allow possessive goal arguments of  $V_1$ . When the compounds appear with the goal argument, the sentences become ill-formed, as shown in (134).<sup>21</sup>

- (134) a. Tegami-ga (\*Naomi-ni) kaki-agar-ta.  
 letter-NOM Naomi-DAT write-go.up-PAST  
 ‘The letter was written up (to Naomi).’  
 b. Touanyousi-ga (\*gakusei-ni) kubari-owar-ta.  
 answer.sheet-NOM student-DAT distribute-finish<sub>in</sub>-PAST  
 ‘The answer sheets were distributed (to students).’

This contrasts with the related compound with the same  $V_1$  and the transitive counterpart  $V_2$ . In (135), the transitive-transitive compounds are acceptable with or without the goal arguments.

- (135) a. Ken-ga (Naomi-ni) tegami-o kaki-age-ta.  
 Ken-NOM Naomi-DAT letter-ACC write-lift-PAST  
 ‘Ken wrote up the letter (to Naomi).’  
 b. Sensei-ga (gakusei-ni) touanyousi-o kubari-oe-ta.  
 teacher-NOM student-DAT answer.sheet-ACC distribute-finish<sub>in</sub>—PAST  
 ‘The teacher finished distributing the answer sheets (to students).’

Neither Nishiyama nor Naumann & Gamerschlag discusses the absence of goal arguments. The fact that the goal is missing in transitive-unaccusative compounds is a problem for their accounts. First, Nishiyama’s claim that external arguments come into the clause through the functional head (active Tr) does not prevent a goal argument of  $V_1$ . Even if we assume that the transitive-unaccusative compounds is

<sup>21</sup> As for Japanese verbal compounds, there is some agreement that the compounds should be classified into two types: syntactic compounds (or head-complement relation), and lexical compounds (or head-head relation). The traditional approaches treat the verbs in (134a) and (135a) ( $V+agar/age$ ) as lexical compounds and the verbs in (134b) and (135b) ( $V+owar/oe$ ) as syntactic compounds. Although I agree that they show distinct behavior, I just focus on their entire argument structure independent of the question of syntactic/lexical compounding formation.



selected by inactive Tr, (in)active Tr has nothing to do with internal arguments of verbs, and the prediction would be that the internal argument, i.e. goal, is acceptable in its syntactic structure. Naumann & Gamerschlag's structural blocking analysis could block the goal arguments if they assumed that goal is structurally higher than theme. As many linguists (cf. Larson 1988, Grimshaw 1990, among many others) assume that arguments of a verb are associated with positions in the syntax, interacting with their thematic roles, they need to show the empirical evidence that goal outranks theme in a thematic hierarchy as well as in the syntactic structure. However, there is little consensus on the ranking of arguments in a thematic hierarchy (except agent). With regard to the ranking of goal and theme, some argue that theme is ranked above goal (cf. Larson 1988, Baker 1989, *inter alia*), and some argue that theme is ranked below goal (cf. Jackendoff 1972, Grimshaw 1990, *inter alia*).

It is worth noting that this fact is also problematic for the intransitivization analysis. There is agreement that the suffix on verbs distinguishes between transitives and intransitives (See Section 1.2). For example, the suffix *e-* and the suffix *(w)ar-* form a transitive-intransitive pair when attaching some verb stem: [*ag-e-*]-[*ag-ar-*] and [*o-e-*]-[*o-war-*] are transitive-intransitive pairs. The intransitivization account derives  $V_{tr}$ - $V_{unacc}$  compounds from  $V_{tr}$ - $V_{tr}$  compounds. This means that once the  $V_{tr}$ - $V_{tr}$  compounds are formed, they behave like simple transitive (ditransitive) verbs. The intransitivization analysis would thus predict that these transitive compounds pattern with the simple transitive verbs with regard to intransitivization. Consider first the simple verb pair, *tuta-e* 'tell<sub>tr</sub>' and *tuta-war* 'tell<sub>in</sub>'.

- (136) a. Haha-ga kodomo-ni sinzitu-o tuta-e-ta.  
 mother-NOM children-DAT truth-ACC tell-TR-PAST  
 'The mother told her children the truth.'  
 b. Sinzitu-ga kodomo-ni tuta-war-ta.  
 truth-NOM children-DAT tell-INTR-PAST  
 'The truth was told to the children.'

In contrast to agent arguments, in (136), the goal arguments survive through intransitivization, i.e. both the transitive and the intransitive verbs can allow the goal. The intransitive verb *tutawar(u)* 'tell<sub>in</sub>' in (136b) differs from the intransitive compounds (e.g. *kaki-agar(u)* (write-go.up) and *kaki-owar(u)* (write-finish<sub>in</sub>) in (134a) in the goal realization. If the intransitivization applies to the transitive verb in (136a) just like the transitive compounds in (135), the goal arguments are not expected to be realized in the intransitive counterpart *tuta-war(u)* in (136b), or vice versa. This prediction turns out to be wrong, as shown by the contrast between (134) and (136b). I then conclude that it is inappropriate to apply the intransitivization analysis to transitive-transitive compounds.

We have observed that all the previous approaches try to capture the fact about the compound with a transitive  $V_1$  and an unaccusative  $V_2$ , i.e. the suppression of arguments (mostly agent arguments). However, the interesting question remains why there is some restriction on the realization of goal arguments in compounds as in (134). As for transitive-unaccusative compounds, it has been claimed in the literature

that a  $V_2$  is a head of the compound. The general fact about  $V_1$ - $V_2$  compounds in Japanese is then that when  $V_1$  is a ditransitive verb and  $V_2$  is unaccusative, and  $V_2$  is the head of the verbal compound, the argument structure in the head  $V_2$  shares the theme argument of the non-head  $V_1$  (“argument-sharing” or “ $\theta$  identification”), generating the argument structure like (137).

$$(137) [V_1: \langle \text{agent, } \underline{\text{theme}}, \text{goal} \rangle] + [V_2: \langle \underline{\text{theme}} \rangle] \rightarrow [V_1\text{-}V_2: \langle \text{theme} \rangle]$$

Following the idea of “argument-sharing”, I thus propose Argument Unification, as in (138).

(138) Argument Unification

When the two verbs of a complex predicate  $V_1$ - $V_2$ , where  $V_2$  is the head, share some arguments, the shared arguments are unified; furthermore, it is only the shared arguments of  $V_1$  that are mapped to the syntactic structure.

Argument Unification provides a simple unified account for the suppression of agents and goals. Under (138), the absence of the agent in (126) is predicted because  $V_2$  *agar(u)* ‘go up’ is an unaccusative verb and hence the agent is not shared by  $V_1$  and  $V_2$ . In the same vein, the suppression of the goal argument in (134) is due to the fact that the  $V_2$  *agar(u)* ‘go up’ and *owar(u)* ‘finish’ do not take goal arguments in their argument structure and hence the goal is not shared in the complex predicate. In contrast, the theme argument is shared by  $V_1$  and  $V_2$  and hence each verb retains its theme argument.

One may claim that, given that  $V_2$  is the head, transitive-unergative compounds violate Argument Unification in (138), because, as shown in (127d), the compound with a transitive  $V_1$  and an unergative  $V_2$  does allow a non-shared argument of the non-head  $V_1$  to be realized; the argument structure formation is  $\langle \text{agent, theme} \rangle + \langle \text{agent} \rangle \rightarrow \langle \text{agent, theme} \rangle + \langle \text{agent} \rangle$ . One solution would be that the head in these compounds is a  $V_1$ , not a  $V_2$ , as claimed in Matsumoto (1996), Gamerschlag (2002), Naumann & Gamerschlag (2003). This left-headedness in the transitive-unergative compounds does not seem ad hoc in term of the semantic structure. Unlike other compounds in (127), the transitive-unergative compounds like *sagasi-mawar(u)* ‘search about’ do not involve causal relation. Rather the event denoted by  $V_1$  and the one by  $V_2$  should take place at the same time. This suggests that this apparent exceptional compound needs to be explained differently. My main concern here is to provide a general account of argument realization in transitive-unaccusative compounds and to provide background for the discussion of the QEC. I will not go into the issue regarding the  $V_{tr}$ - $V_{unerg}$  compounds in detail here.

In summary, I have shown that the compound with a triadic  $V_1$  and an unaccusative  $V_2$  does not take either the agent or the goal arguments of the  $V_1$ . Furthermore, I have pointed out that the intransitivization account did not give an explicit explanation for the suppression of agent and goal arguments, and that the

structural accounts need an additional assumption for the suppression of goal arguments so that the structure posited by Nishiyama or Naumann & Gamerschlag successfully excludes the goal argument of  $V_1$ . An alternative proposal, Argument Unification as in (138), was made to capture all the facts regarding argument suppression of  $V_1$ - $V_2$  compounds. What is important in this section is that transitive-unaccusative compounds pattern with the QEC with regard to argument realization (cf. Section 2.2.1 and 2.2.2). Another point is that the transitive-unaccusative verbal compounds we have examined take the aspectual verbs like *agar(u)* ‘go up’ or *owar(u)* ‘finish’ as  $V_2$ . As I claimed in Section 3.1, the verb *i(ru)* in the QEC functions as a full verb as well as an aspectual auxiliary. This section showed that the existential and the aspectual verb *i(ru)* as  $V_2$  in the QEC are similar to the aspectual unaccusative  $V_2$  verbs in the transitive-unaccusative verbal compounds. With regard to argument realization, the assumption that the  $V_1$  and  $V_2$  in the QEC forms a verbal compound receives support from the general properties of the Japanese  $V_1$ - $V_2$  compounds.

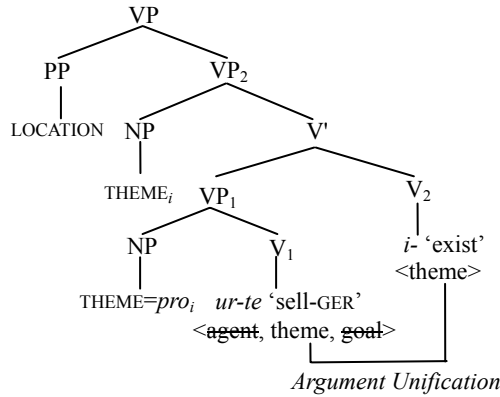
*3.2.2 Argument Unification in the QEC: Suppression of Agent and Goal* Now let me return to the question of why the QEC does not allow an agent argument to be realized even if  $V_1$  is morphologically transitive. I have argued that *i(ru)* is a verb that serves double duty: existential and auxiliary, and it forms a complex predicate with the  $V_1$ . Significantly, the QEC, where  $V_1$  (e.g. *ur-te* ‘sell-GER’) is transitive and  $V_2$  (i.e. *i(ru)* ‘exist’) is unaccusative, falls under  $V_{tr}$ - $V_{unacc}$  compounds. Since previous approaches, i.e. intransitivization and structural blocking, fail to capture the generalization on the transitive-unaccusative compounds, we expect that both accounts also face some problems in explaining argument suppression in the QEC.

As shown in Section 3.2.1, the fuller picture of the distributional fact supports the argument unification approach for the QEC; a possessive goal argument of  $V_1$  cannot surface in the QEC either. Let me go over the examples with goal arguments in the QEC. Although a goal argument of  $V_1$  may be expressed with the canonical aspectual use of the *te-i(ru)* form or other constructions (passive or intransitive), it cannot be expressed in the QEC as in (139a).

- (139) a. \* Toyota-no kuruma-ga gakusei-ni ur-te-i-ta.  
           Toyota-GEN car-NOM student-to sell-GER-EXIST-PAST  
           ‘Toyota cars were sold to students.’ (QEC)
- b. Toyota-no kuruma-o gakusei-ni ur-te-i-ta.  
       Toyota-GEN car-ACC student-to sell-GER-AUX-PAST  
       ‘(They) were selling Toyota cars to students.’ (AAC)
- c. Toyota-no kuruma-ga gakusei-ni ur-rare-ta.  
       Toyota-GEN car-NOM student-to sell-PASS-PAST  
       ‘Toyota cars were sold to students.’ (Passive)
- d. Toyota-no kuruma-ga 2zikan maeni gakusei-ni ur-e-ta.  
       Toyota-GEN car-NOM 2.hour ago student-to sell-INTR-PAST  
       ‘Toyota cars were sold to students two hours ago.’ (Intr)

I propose that, in the QEC, when the theme argument of the non-head verb ( $V_1$ ) is shared with that of the head verb ( $V_2$ ) through argument sharing, non-shared arguments of the non-head verb ( $V_1$ ) must be suppressed, which I called Argument Unification (138). Since  $V_2$  *i(ru)* is the head of the QEC and takes theme and location arguments, the agent and the goal of  $V_1$ , which are not shared by the head  $V_2$ , must be suppressed as in (140a), and hence are not mapped to the syntactic structure proposed.

(140)



### 3.3 *I(ru)* as an Existential Verb: Licensing of *ni* Locative

I observed in Section 2.2.2 that locations can be marked by *ni* or *de*, depending on sentence type. The locative *ni* is restricted to sentences which denote a “Thing”. On the other hand, the *de* locative occurs with sentences which denote either states or events. I now present evidence from the appearance of the *ni/de* locatives to support my proposal that the verb *i(ru)* in the QEC functions as a full verb and an aspectual auxiliary simultaneously.

I begin with the *ni* locative, which indicates the location of the theme. As shown in (141), only the QEC is compatible with the *ni* locative.

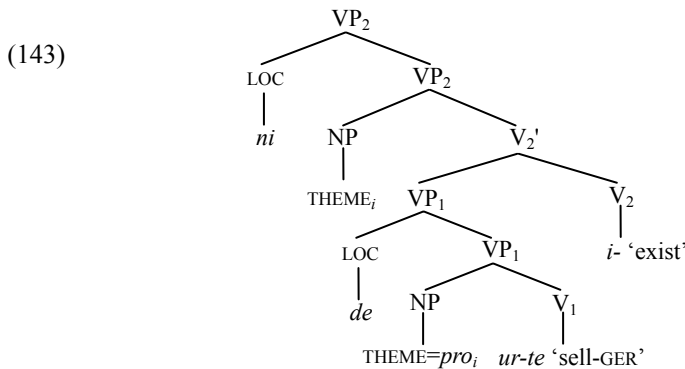
- (141) a. Friimaaketto- $\{ni/de\}$  sinzyu-no-nekkuresu-ga ur-te-i-ta.  
 flea.market-LOC pearl-GEN-necklace-NOM sell-GER-exist-PAST  
 ‘At the flea market, a pearl necklace was for sale.’ (QEC)
- b. Friimaaketto- $\{*ni/de\}$  sinzyu-no-nekkuresu-o ur-te-i-ta.  
 flea.market-LOC pearl-GEN-necklace-ACC sell-GER-exist-PAST  
 ‘At the flea market, (they) were selling a pearl necklace.’ (AAC)
- c. Friimaaketto- $\{*ni/de\}$  sinzyu-no-nekkuresu-ga ur-rare-ta.  
 flea.market-LOC pearl-GEN-necklace-NOM sell-PASS-PAST  
 ‘At the flea market, a pearl necklace was sold.’ (Passive)
- d. Friimaaketto- $\{*ni/de\}$  nekkuresu-ga 2zikan maeni ur-e-ta.  
 flea.market-LOC necklace-NOM 2.hours ago sell-INTR-PAST  
 ‘At the flea market, a necklace sold two hours ago.’ (Intr.)

The assumption that the verb *i(ru)* in the QEC is an existential verb means the *ni* locative is its argument, just as in existential sentences. (141a) is felicitous because it is the existential sentence due to the  $V_2$ , *i(ru)*. Other sentences like (141b)-(141d) are infelicitous because they do not involve this existential verb. Note that the verb *i(ru)* in the aspectual auxiliary construction has lost its properties as an existential verb although the same verb *i(ru)* is used. The aspectual auxiliary construction by itself does not license the *ni* locative, as illustrated in (141b).

Recall that the QEC is also compatible with locative *de*, which indicates the location of the selling event, as in (142). It follows that (142) must indicate a state or an event as well as an existence.

- (142) Friimaaketto-de sinzyu-no-nekkuresu-ga ur-te-i-ta.  
 flea.market-LOC pearl-GEN-necklace-NOM sell-GER-exist- PAST  
 ‘At the flea market, a pearl necklace was for sale.’

The structure I proposed in Section 3.1 is a VP-shell structure. The *de* locative, which is supposed to be associated with a event/state, can be adjoined to the lower  $VP_1$ . My complex analysis has two VP, one headed by the  $V_1$ , and the other headed by the existential  $V_2$ . The locative PPs, the *ni*-PP and the *de*-PP, are attached to  $VP_1$  and  $VP_2$ , respectively, as illustrated in (143).



The two attested locative positions are evident from the example in (144), where the *ni* locative and the *de* locative can co-occur in the QEC.<sup>22</sup> This follows from the fact that they occupy distinct syntactic positions. Thus, the proposed structure correctly explains the co-occurrence of the two locatives.

- (144) Rezi-mae-ni Tawareko-de keabea-ga ur-te-i-ta.  
 cashier-front-LOC Tower.Record-LOC Care.Bear-NOM sell-GER-exist- PAST  
 ‘At Tower Records, Care Bears were for sale in front of the cashier.’

<sup>22</sup> Semantically, the location indicated by *de* contains the other in (144), and hence the (scrambled) *de-ni* word order is preferred to *ni-de* word order.

This structural difference also reflects the distinct interpretations regarding the locative *ni* and *de* respectively; the location marked by *ni* should be the place of the entity, whereas the location marked by *de* should be the place of the event/state. As shown in Section 2.2.3, the examples in (145) illustrate the inability of the *ni*-locative to describe the place where somebody sells something, or something is sold, and the inability of the *de*-locative to describe the place where the very entity exists.

- (145) a. Kinou-no orikomi-koukoku-{\*ni/de} beddo-ga  
 yesterday-GEN inserted-ads-LOC bed-NOM  
 ur-te-i-ta.  
 sell-GER-exist-PAST  
 ‘In yesterday’s newspaper inserts (I found) beds were for sale.’
- b. Syookeesu-no-naka-{ni/#de} tyiara-ga ur-te-i-ta.  
 display.show.case-GEN-inside-LOC tiaras-NOM sell-GER-exist-PAST  
 ‘Inside the display showcase, tiaras were for sale.’

In (143), the *ni* locative is associated with the existential verb *i(ru)* (V<sub>2</sub>) and is construed as the place in which the entity (i.e. theme argument) is located. In contrast, the *de* locative which is adjoined to the lower VP (VP<sub>1</sub>) locates the *for sale* situation in a certain place marked by *de*.

### 3.4 *I(ru)* as a Head Verb: Aspectual Properties

The complex predicate analysis also allows an explicit explanation for the durativity and atelicity of the QEC (Section 2.2.4). Although the auxiliary *i(ru)* does not play a role in determining the aspectual property of the expression, the QEC seemed to have an aspectual restriction. In other words, V<sub>2</sub> is the head of the complex predicate in the QEC and hence just as the entire argument structure must match with that of V<sub>2</sub>, aspectual properties must match with V<sub>2</sub>, too. The clear contrast in aspectual classification between the auxiliary *i(ru)* and the existential *i(ru)* in the QEC is shown in (146).

- (146) a. Futuka-{kan/de} Naomi-ga ie-o ur-te-i-ta.  
 two.days-for/in Naomi-NOM house-ACC sell-GER-AUX-PAST  
 ‘Naomi was selling houses for two days.’  
 ‘Naomi was selling a house in two days.’
- b. Futuka-{kan/\*de} keeki-ga ur-te-i-ta.  
 two.days-for/in cake-NOM sell-GER-exist-PAST  
 \*‘A cake was for sale in two days.’  
 ‘Cakes were for sale for two days.’

In Section 3.2.1, the QEC was shown to be parallel to verbal compounds (V<sub>tr</sub>-V<sub>unacc</sub>)

in the structure of its argument structure. With regard to aspect, it also patterns with these compounds. In Japanese verbal compounds, it has been claimed that the head verb plays a crucial role in determining the aspect of the compound verb as well as in selecting the  $V_1$  verb (cf. Shibatani 1973, 1978, Kuno 1987, Nishigauchi 1993, Kageyama 1993, Matsumoto 1996, Tsujimura 2006). As  $V_2$  verbs in the verbal compound are called aspectual verbs, McClure (1994) uses these aspectual verbs for diagnostics for the aspect of the verb ( $V_1$ ) they combine (see also Hasegawa 1996). Depending on what they denote regarding aspectual specifications (i.e. inception, continuation, and completion), the  $V_1$  verbs they combine with are concomitantly restricted. A verb like *tuzuker(u)* ‘continue’ can combine only with an atelic predicate, while a verb like *owar(u)* ‘finish<sub>in</sub>’ is only compatible with an accomplishment predicate.

Consider first the complex predicate with the verb *owar(u)* ‘finish<sub>in</sub>’ as  $V_2$ . Because this verb carries a completive meaning, it requires a  $V_1$  verb to encode an inherent endpoint. It thus follows that neither a stative verb nor an achievement verb is possible as  $V_1$ , as shown in (147).

- (147) a. \*Naomi-ga (ichinen-kan) sokoni sumi-owar-u.  
           Naomi-NOM one.year-for there live- finish<sub>in</sub>-PRES  
           ‘(Lit.) Naomi finishes living there (for a year).’  
       b. \*Naomi-ga (itizi-kan) eki-ni tuki-owar-ta.  
           Naomi-NOM one.hour-for station-to reach- finish<sub>in</sub>-PAST  
           ‘(Lit.) Naomi finished reaching the station (for an hour).’

The same is true for other telic predicates like *agar(u)* ‘go up’ which I showed in Section 3.2.1 can be  $V_2$  of  $V_{tr}$ - $V_{unacc}$  compounds.

- (148) a. \*Naomi-ga (ichinen-kan) sokoni sumi-agar-u.  
           Naomi-NOM one.year-for there live-go.up-PRES  
           ‘(Lit.) Naomi lives up there (for a year).’  
       b. \*Naomi-ga (itizi-kan) eki-ni tuki-agar-ta.  
           Naomi-NOM one.hour-for station-to reach-go.up-PAST  
           ‘(Lit.) Naomi reached the station (for an hour).’

On the other hand, when the head verb ( $V_2$ ) is an atelic predicate, it requires an atelic verb as  $V_1$ . Since verbs like *tuzuke(ru)* ‘continue’ and *mawar(u)* ‘go around’ receive an inherently atelic interpretation, an inherently telic verb such as *tuk(u)* ‘reach’ is incompatible as  $V_1$ , as shown in (149).

- (149) a. \*Ken-ga (nijikan-de) kouen-ni tuki-tuzuke-ru.  
           Ken-NOM two.hours-in park-to reach-continue-PRES  
           ‘(Lit.) Ken continues to reach the park (in two hours).’  
       b. \*Ken-ga (nijikan-de) kouen-ni tuki-mawa-ru.  
           Ken-NOM two.hours-in park-to reach-go.around-PRES

‘(Lit.) Ken reaches around the park (in two hours).’

It is clear that an existential verb must be durative and atelic. This is confirmed by the following examples, which show its unacceptability with a temporal *in*-adverbial and its acceptability with a *for*-adverbial.

- (150) Futuka-{\*de/kan} gakkou-ni Ken-ga i-ta.  
 two.days-in/for school-LOC Ken-NOM exist-PAST  
 ‘Ken was at school {\*in/for} two days.’

Turn to the QEC. I argued that the QEC involves a complex predicate structure. As suggested in Section 3.2.1, given that the head of the verbal compound in Japanese is  $V_2$ , the verb *i(ru)* in the QEC is the head in line with these compounds that I have just shown. We thus predict that telic or instantaneous verbs cannot be the  $V_1$  in the  $V_{tr}$ - $V_{unacc}$  compound (i.e. the QEC), because they are aspectually incompatible with an existential verb *i(ru)*. This prediction is supported by the facts in Section 2.2.4. The examples are repeated as in (151).

- (151) a. \*Vodafone.Japan-no-kabu-ga baikyaku-si-te-i-ru.  
 Vodafone.Japan-GEN-share-NOM sell.off-do-GER-exist-PRES  
 ‘The shares of Vodafone Japan are sold off.’ [+telic, –durative]  
 b. \*Ie-ga (1-ken) uri-tuke-te-i-ru.  
 house-NOM 1-CL sell-attach-GER-exist-PRES  
 ‘A house is palmed off.’ [+telic, +durative]  
 c. \*Ie-ga (1-ken) uri-kir-te-i-ru.  
 house-NOM 1-CL sell-cut-GER-exist-PRES  
 ‘A house is sold out.’ [+telic, –durative]

To sum up, this section showed that in the  $V_1$ - $V_2$  compounds, the head verb  $V_2$  can only take the  $V_1$  whose aspectual feature matches with that of the  $V_2$ . Given that the verb *i(ru)* in the QEC maintains the existential property, I proposed that the verb *i(ru)* and its preceding verb are governed by the same mechanism. It was shown that the head verb *i(ru)* only allows a durative and atelic verb as  $V_1$  in the QEC. In contrast, there is no aspectual restriction on the  $V_1$  in the aspectual auxiliary construction. Namely, the auxiliary *i(ru)* lost its existential property and does not form a  $V_1$ - $V_2$  compound with the  $V_1$ .

### 3.5 Existential Sentences under Negation

I have observed that the verb *i(ru)* in the QEC can be a full verb as well as usual aspectual auxiliary. My assumption that the verb *i(ru)* is also existential would predict



that the QEC falls under existential sentences. This section examines what is presupposed in the QEC, through a comparison with Russian existential sentences. I observe that what is negated in the Russian existential sentences and in the QEC is the existence not the location of the theme. The QEC is thus parallel to a true existential sentence in its presuppositions. Then I argue that this explains a difference in the attachment site of negation in the QEC and the aspectual auxiliary construction.

*3.5.1 Presupposition: GenNeG in Russian and QEC in Japanese* Russian is a free word order language, and has no overt expletive corresponding to English *there*. As the English translation shows, the sentence (152a) in which the locative argument precedes the subject is generally considered an existential sentence, while the sentence (152b) in which the subject comes first is predicative.

- (152) a. V gorode byl doktor.  
           in town           was-M.SG doctor-NOM.M.SG  
           ‘There was a doctor in town.’ (existential)
- b. Doktor byl v gorode.  
           doctor-NOM was-M.SG in town  
           ‘The doctor was in town.’ (predicative)
- (Partee and Borschev 2007: 147)

Under negation, these two sentences differ in case marking. In an existential sentence like (153a), the NP is obligatorily marked by genitive, while in a predicative sentence like (153b), the NP receives nominative. Following Babby (1980), I use the terminology “negated existential sentences” (NES) for those with genitive subjects, as in (153a), and “negated declarative sentence” (NDS) for those with nominative subjects, as in (153b).<sup>23</sup>

- (153) a. V gorode ne byl doktora.  
           in town       NEG was-M.SG doctor-GEN.M.SG  
           ‘There was no doctor in town.’ (NES)
- b. Doktor ne byl v gorode.  
           doctor-NOM was-M.SG in town  
           ‘The doctor was not in town.’ (NDS)
- (Brown 1999: 85)

<sup>23</sup> Brown (1999:85) points out that a predicative sentence like (152b) can receive genitive on the theme when negated, as in (i).

(i) Doktora ne bylo v gorode.  
       doctor-GEN.M.SG NEG was-M.SG in town  
       ‘The doctor was not (located) in town.’ (Brown 1999:86)

Although (i) takes the existential verb and the argument is marked by genitive, it only expresses a propositional interpretation, not an existential interpretation. The aim of this section is to examine the difference in presupposition depending on whether or not the sentence receives an existential reading. I thus do not discuss sentences with genitives like (i) in this paper.

The phenomenon illustrated in (153a) is well-known as Genitive of Negation (GenNeg) and has received much discussion in the literature mostly with respect to its bearing on unaccusativity (cf. Chvany 1975). The unaccusative verb *arrive* is also found with the GenNeg on its theme in (154a); while in (154b) the theme has nominative case.

- (154) a. *Otveta iz polka ne prišlo.*  
 answer-GEN.M.SG from regiment NEG arrived-N.SG  
 ‘There was no answer from the regiment.’  
 b. *Otvet iz polka ne prišel.*  
 answer-NOM.M.SG from regiment NEG arrived-M.SG  
 ‘The answer from the regiment has not arrived.’  
 (Partee and Borschev 2007: 147)

Babby (1980, 2001) and Partee & Borschev (2002) have a different take on this phenomenon, and argue that constructions with genitive of negation (including (154a)) are existential. Babby (2001:40) states that “the NP argument of a negated monadic verb is assigned GEN only when the sentence is existential.” The GenNeg in Russian and the QEC in Japanese do not look so similar, because the verbs used in GenNeg (unaccusative) differ from the ones in the QEC (transitive). According to Babby (1980) and Partee & Borschev (2007), existential GenNeg is possible if a verb may be considered equivalent to *be* (or *appear*, *begin to be*, etc.) in a given context. Thus, not only unaccusative but unergative verbs, and even perception verbs (i.e. transitives) can appear in existential GenNeg constructions (see also Babby 2000:50). Under my complex predicate analysis, I departed from the assumption that, in the QEC, a transitive  $V_1$  verb combines with an aspectual auxiliary which is grammaticalized; rather I argued a transitive  $V_1$  combines with an existential  $V_2$  verb. In effect, we observed the QEC is similar to existential sentences in several ways. I claimed that existential properties follow from the status of the existential verb in a complex predicate structure, and predict that the QEC, if I am correct, patterns with the existential sentences in terms of the pragmatic function. By comparing the presupposition in Russian GenNeg with that of the QEC, I will show that this proposal receives support.

Babby (1980, 2001) claims that NES and NDS differ in the scope of negation. In the NES, the negation scopes over the sentence. It follows that the subject NP when genitive falls under the scope of negation. In the NDS, the negation scopes over the VP and thus not over the subject. (155a) negates both the existence of frost and “it was felt”. The NDS like (155b), on the other hand, presupposes that frost exists and asserts that people do not feel it because they are warmly dressed.<sup>24</sup>

<sup>24</sup> Contrary to the claim made by Babby and Partee & Borschev (2002), Chvany (1975) states that sentences like (155a) do not receive an existential interpretation. Rather, they receive a propositional reading. That is, the genitive NP is a presupposed argument like the one in NDS. This paper, however, follows Babby and Partee & Borschev’s claims

- (155) a. Bylo teplo. Moroza ne čuvstvovalos.  
 was warm frost-GEN.M.SG NEG be.felt.N.SG  
 ‘It was warm. No frost was felt (there was no frost).’ (NES)
- b. Vse byli teplo odety i moroz ne čuvstvovalsja.  
 all were warmly dressed and frost-NOM.M.SG NEG be.felt.M.SG  
 ‘Everyone was warmly dressed and the frost was not felt.’ (NDS)  
 (Babby 1980:59)

Partee & Borschev (2002) further elaborate the presuppositional differences between (negated) existential sentences and (negated) declarative sentences, adding an obligatory LOC(ation) role in each semantic structure. Assuming that these two constructions in (156) involve “BE (THING, LOC)”, where BE stands for any potential existential verb, they point out a difference in presuppositions (or Perspectival Center in their terms). As shown in (156b), in declarative (locative) sentences, the existence of THING, which is underlined, is presupposed. In contrast, in existential sentences like (156a), they propose that the existence of LOC(ation), which is underlined is presupposed.

- (156) a. BE(THING, LOC): structure of the interpretation of an existential sentence
- b. BE(THING, LOC): structure of the interpretation of a locative sentence

The following examples from Partee and Borschev (2002) confirm that existential sentences presuppose LOC(ation). The NES as in (157a) is infelicitous when followed by the sentence indicating the location of the NES did not exist, while the NDS as in (157b) is still felicitous because the location in DES is not presupposed to exist.

- (157) a. Peti na koncerte ne byl.  
 Petja-GEN.M.SG at the.concert NEG was-N.SG  
 #Koncerta ne bylo.  
 concert NEG was-N.SG  
 ‘Peter was not at the concert. There was no concert.’
- b. Petja na koncerte ne byl.  
 Petja-NOM.M.SG at the.concert NEG was-M.SG  
 Koncerta ne bylo.  
 concert NEG was-N.SG  
 ‘Peter was not at the concert. There was no concert.’  
 (Adapted from Partee & Borschev 2002)

This hypothesis holds true in the QEC which I claimed are existential sentences. Consider the following examples. Here is the context: In Japan, “Year-End Jumbo” lottery tickets are sold around December. Since the jackpot is one of Japan’s largest lottery prizes, special lottery ticket booths are set up outside in some big cities unless it is raining. One rainy day, Speaker A went to an outdoor booth to buy a lottery ticket.

But, as expected, he found no booth there because of the weather. In this situation, he cannot use a QEC like (158a), while he could say (158b).

- (158) a. #Soto-no-tokusetu-kaizou-ni takarakuzi-ga  
 outdoor-GEN-special-booth-LOC lottery.ticket-NOM  
 ur-te-i-naka-ta.  
 sell-GER-exist-NEG-PAST  
 ‘At the outdoor special booth, lottery tickets were not sold.’  
 b. Soto-no-tokusetu-kaizou-de takarakuzi-o  
 outdoor-GEN-special-site-LOC lottery.ticket-OM  
 ur-te-i-naka-ta.  
 sell-GER-AUX-NEG-PAST  
 ‘At the outdoor special booth, (they) didn’t sell lottery tickets.’

In (158), we see from the context that the speaker expected that there existed a special ticket booth outside, i.e. the location *at the outdoor special booth* is supposed to exist, but no booth was found there because of raining. This presupposition failure makes QEC like (158a) infelicitous.<sup>25</sup>

The THING in Russian existential sentences also patterns with QEC’s THING. An NES example like (159a) can be followed by a sentence asserting the denial of the THING’s existence, whereas an NDS like (159b) becomes anomalous when the existence of the THING, which is presupposed, is canceled.

- (159) a. Ni odnogo studenta nakoncerte ne bylo.  
 NEG one-GEN.M.SG student-GEN.M.SG at.the.concert NEG was-N.SG  
 ‘There was not a single student at the concert.’  
 V našem gorode net studentov.  
 in our city NEG.is-N.SG students- GEN.M.PL  
 ‘There are no students in our city.’  
 b. Ni odnogo student na koncerte ne byl.  
 NEG one-NOM.M.SG student- NOM.M.SG at the.concert NEG was-M.SG  
 ‘Not a single one of the students was at the concert.’  
 #V našem gorode net studentov.  
 in our city NEG.is-N.SG students- GEN.M.PL  
 ‘There are no students in our city.’

(Partee and Borschev 2002:192)

The parallel contrast can be found in the QEC and the aspectual auxiliary construction, as shown in (160). As in a Russian NES, there is no incoherency in the QEC (160a). It thus follows that there is no presupposition of existence of the nominative NP in the QEC.

<sup>25</sup> Here I do not claim that the sentence (158b) (Aspectual Auxiliary Construction) corresponds to (Negated) Declarative Sentence (NDS), except to draw attention to the contrast between QEC and Auxiliary Aux construction.

- (160) a. Takarakuzi-ga ur-te-i-naka-ta.  
 lottery.ticket-NOM sell-GER-exist-NEG-PAST  
 Mada hatubai-bi mae dat-ta.  
 yet sale-date before be-PAST  
 'The lottery tickets were not sold. It was before the sale date.'
- b. #Takarakuzi-o ur-te-i-naka-ta.  
 lottery.ticket-ACC sell-GER-exist-NEG-PAST  
 Mada hatubai-bi mae dat-ta.  
 yet sale-date before be-PAST  
 '(They) were not selling the lottery tickets. It was before the sale date.'

Although, as in Babby (2001), it is possible to assume a syntactic structure which reflects the presupposition differences, here I do not postulate a specific position for presupposed arguments (e.g. Topic position) outside negation or a specific operation to move out of the negative scope. Rather I would like to limit myself to suggesting a similarity between Russian NES and Japanese QEC, and to conclude that the QEC can be considered existential sentences in terms of pragmatics (i.e. presupposition), too.

*3.5.2 What Gets Negated* I have shown that the negated QEC patterns with the negated existential sentences with regard to presupposition. Since existential sentences do not presuppose that a subject NP exists, the primary function of negation in existential sentences is to assert that the subject NP does not exist, not to assert that the event/state denoted by the predicate is not realized, as in the negated declarative sentences.

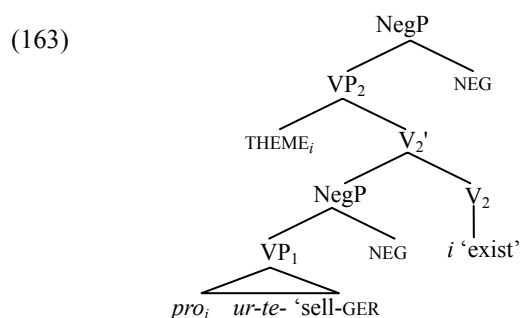
- (161) a. Heya-ni kodomo-ga i-ru.  
 room-LOC children-NOM exist-PRES  
 'There are children in the room.'
- b. Heya-ni kodomo-ga i-nai.  
 room-LOC children-NOM exist-NEG  
 'There are no children in the room.'

Further evidence that the QEC functions as an existential sentence comes from the fact the negative morpheme *-nai* can only be associated with the existential verb, but not with the VP<sub>1</sub> in existential sentences, the negation must deny the very existence in the first place. We begin by looking at the two possible attachments of the negative element *-nai* in the aspectual auxiliary construction. When the verb *i(ru)* is used as an aspectual auxiliary, the negative morpheme *-nai* can be adjoined either to a verb preceding *i(ru)* or to the auxiliary *i(ru)*, as illustrated in (162).

- (162) a. Naomi-ga hon-o ur-te-i-nai.  
 Naomi-NOM book-ACC sell-GEN-AUX-NEG  
 'Naomi is not selling the book.'

- b. Naomi-ga hon-o ura-nai-de-i-ru.  
 Naomi-NOM book-ACC sell-NEG-GEN-AUX-PRES  
 (Lit.): 'Naomi is in the state of not selling the book.'

Likewise, given that negation can in principle adjoin to any VP, there are two possible attachment sites for the negative element *nai* to be adjoined in the syntactic structure proposed for the QEC: the VP<sub>1</sub> as well as the VP<sub>2</sub>, as illustrated in (163).



In the QEC, however, the attachment of the negative morpheme *-nai* to V<sub>1</sub> is actually impossible, as shown in (164b).

- (164) a. Hon-ga ur-te-i-nai.  
 book-NOM sell-GER-exist-NEG  
 'No books are for sale.'  
 b. \*Hon-ga ura-nai-de-i-ru.  
 book-NOM sell-NEG-GER-exist-PRES  
 'Books are in the state of not being sold.'

The ungrammaticality of (164b) is indeed expected under my theory of the QEC. Because the QEC is existential in nature, negation must deny the existence of the theme and hence attach to the V<sub>2</sub> *i(ru)* on a par with (161). What is crucial here is that the negation cannot attach to V<sub>1</sub> due to the QEC's existential property. It is not the case that no particle can attach to V<sub>1</sub> in the QEC. Indeed, other particles like *sae* 'even' occur to the right of the V<sub>1</sub>, as shown in (165).

- (165) Hon-ga ur-te-sae-i-nai.  
 book-NOM sell-GER-even-exist-NEG  
 'Books are not even for sale.'

One might object that attaching negation to V<sub>1</sub> requires V<sub>1</sub> to be agentive and that (164b) is ungrammatical for this reason. This is not the case, however. As shown in (166), unaccusative verbs can also come as V<sub>1</sub> in the negative aspectual auxiliary construction.

- (166) a. Pisa-no syatoo-ga taore-nakat-ta.  
 Pisa-GEN Leaning.Tower-NOM fall-NEG-PAST  
 ‘Leaning Tower of Pisa didn’t fall down.’  
 b. Pisa-no syatoo-ga taore-nai-de-i-ta.  
 Pisa-GEN Leaning.Tower-NOM fall-NEG-GER-AUX-PAST  
 ‘Leaning Tower of Pisa was in the state of not falling down.’

Thus, the fact that the negative morpheme cannot attach to  $V_1$  shows that the QEC is existential in nature.

### 3.6 The QEC in the Diachronic Setting

As it is well known, the verb *i(ru)* has developed into an existential verb (for animate subjects) and a progressive/perfective auxiliary in Contemporary Japanese. I have shown so far that the QEC is an existential construction with the verb *i(ru)* as a head. On the other hand, it is well known that existential verbs in contemporary Japanese exhibit animacy restrictions and *i(ru)* takes an animate subject, as shown in Section §ref{evav}. In the QEC, nevertheless, an inanimate NP can appear as an argument of the existential verb *i(ru)*. These are, at first blush, contradictory. In this section, I suggest that the apparent contradiction is superficial. In fact, the lack of animacy restrictions in the QEC makes sense if we decompose the verb *i(ru)* and the auxiliary *i(ru)* into distinctive features. I will hint at the possibility that the verb *i(ru)* in the QEC follows from a combination of those features.

Kinsui (2006) gives a detailed study of the historical development of the verbs of existence *i(ru)* and *ar(u)*. As he shows, the verb of existence *i(ru)* in contemporary Japanese has developed from the verb *wi(ru)* which used to mean “to sit”. On the other hand, the verb *ar(u)* in contemporary Japanese originates from the verb of existence *ar(u)*, which was used for either animate or inanimate subjects in Old Japanese. He posits two types of existential constructions: Type A and Type B. Type A, termed a *spatial existence sentence*, denotes the relation between a physical region and an existing object. Type B, a *quantificational existence sentence*, denotes the presence/absence of a member in a certain set (See also Teramura 1982:159). These two sentence types are illustrated in (167) and (168).

- (167) Type A: Spatial Existence Sentence
- a. Kodomo-ga kouen-ni i-ru.  
 child-NOM park-LOC exist<sub>anim</sub>-PRES  
 ‘There is a child in the park.’  
 b. \*Kodomo-ga kouen-ni ar-u.  
 child-NOM park-LOC exist<sub>inan</sub>-PRES  
 ‘There is a child in the park.’ (Kinsui 2006:14)  
 c. \*Benti-ga kouen-ni i-ru.  
 bench-NOM park-LOC exist<sub>anim</sub>-PRES

- ‘There is a bench in the park.’
- d. Benti-ga kouen-ni ar-u.  
bench-NOM park-LOC exist<sub>inan</sub>-PRES  
‘There is a bench in the park.’
- (168) Type B: Quantificational Existence Sentence
- a. Zyugyou-tyuuni ne-te-i-ru gakusei-ga i-ru.  
class- sleep-GER-AUX-PRES student-NOM exist<sub>anim</sub>-PRES  
‘There is a student such that s/he is asleep in class.’
- b. Zyugyou-tyuuni ne-te-i-ru gakusei-ga ar-u.  
class-during sleep-GER-AUX-PRES student-NOM exist<sub>inan</sub>-PRES  
‘There is a student such that s/he is asleep in class.’  
(Kinsui 2006:14)
- c. \*Saikin iPod-konekuta-ga tuite-ru kuruma-ga i-ru.  
nowadays iPod-connector-NOM equip-PRES car-NOM exist<sub>anim</sub>-PRES  
‘There are cars equipped with an iPod connector nowadays.’
- d. Saikin iPod-konekuta-ga tuite-ru kuruma-ga ar-u.  
nowadays iPod-connector-NOM equip-PRES car-NOM exist<sub>inan</sub>-PRES  
‘There are cars equipped with an iPod connector nowadays.’

The verb *wir(u)* acquired its stative use and came to be used as a verb of existence around the Muromachi Era (A.D. 1336-1573). At the end of the Edo Era (A.D. 1789-1867), it was used only for animate subjects of Type-A sentences. In contemporary Japanese (among older generations), the verb of existence *i(ru)* is compatible with animate subjects (Type A or B). *Ar(u)*, on the other hand, is exclusively used for inanimate subjects in Type A, whereas it is licit with the Type-B animate subjects, too.

Through a change that has taken place over the past 100 years, however, the verb *i(ru)* is now used (in particular by members of younger generations) only for animate subjects and the verb {*Yit ar(u)*} has become the norm for inanimate subjects, with (168b) being less and less acceptable. The historical changes are illustrated below (adapted from Kinsui 2006).

|           | Old Japanes<br>(8 <sup>th</sup> -14 <sup>th</sup> C) |             | Muromati<br>(15 <sup>th</sup> -16 <sup>th</sup> C) |             | Edo<br>(18 <sup>th</sup> C) |             | Contemporary I<br>(Older) |                  | Contemporary II<br>(Younger) |             |
|-----------|------------------------------------------------------|-------------|----------------------------------------------------|-------------|-----------------------------|-------------|---------------------------|------------------|------------------------------|-------------|
|           | A                                                    | B           | A                                                  | B           | A                           | B           | A                         | B                | A                            | B           |
| animate   | <i>ar-i</i>                                          | <i>ar-i</i> | <i>i-ru/ar-u</i>                                   | <i>ar-u</i> | <i>i-ru</i>                 | <i>ar-u</i> | <i>i-ru</i>               | <i>i-ru/ar-u</i> | <i>i-ru</i>                  | <i>i-ru</i> |
| inanimate | <i>ar-i</i>                                          | <i>ar-i</i> | <i>ar-u</i>                                        | <i>ar-u</i> | <i>ar-u</i>                 | <i>ar-u</i> | <i>ar-u</i>               | <i>ar-u</i>      | <i>ar-u</i>                  | <i>ar-u</i> |

Table 2

Type A: *Spatial Existence Sentence*      Type B: *Quantificational Existence Sentence*

In addition, in Contemporary Japanese, the verb *i(ru)* has also grammaticalized into the progressive aspectual auxiliary verb. In this use, the animacy restriction is neutralized and hence all verbs take *i(ru)* irrespective of the animacy of their subjects.



- (169) a. Naomi-ga hasir-te-i-ru.  
           Naomi-NOM run-GER-AUX-PRES  
           ‘Naomi is running.’  
       b. Mizu-ga nagare-te-i-ru.  
           water-NOM flow-GER-AUX-PRES  
           ‘The water is running.’

From this diachronic perspective, what sense can be made of the *i(ru)* of the QEC? I have already proposed that this *i(ru)* has a dual status as both an existential verb and an aspectual auxiliary. This is illustrated in the Table (170).

(170)

|           |   | Aspectual (No Animacy)    |                     |
|-----------|---|---------------------------|---------------------|
|           |   | +                         | –                   |
| Existence | + | Quasi-Existential Constr. | Existential Constr. |
| Existence | – | Aspectual Aux Constr.     | ?                   |

The *i(ru)* of the QEC patterns with the progressive aspectual auxiliary *i(ru)* in that it retains a progressive meaning and neutralizes animacy distinctions. However, it differs in that it also retains the status as a verb of existence. As I have shown in the preceding sections, this is most prominently verified by the fact that it can take the *ni* locative phrase. I thus suggest that the verb *i(ru)* is of the third type: [+aspectual(no animacy), +existence].

As I have pointed out elsewhere, the QEC is relatively new and some members of the older generation may not accept it. The development of the QEC thus can be seen as a new phase of diachronic change: mixing the functions of the existential verb and the aspectual auxiliary.

#### 4 CONCLUSION

Although the *te-i(ru)* form has been considered just to be an aspectual auxiliary and to have nothing to do with case-marking, I have pointed out that there is nominative-accusative case alternation when taking durative and atelic verbs like *ur(u)* ‘sell’ (or other verbs discussed in Section 2.2.5). In this paper, I termed the sentences with such a nominative theme argument the *Quasi-Existential Construction* (QEC). The general observation is that the alternate case-marking similar to that in the QEC always involves an additional morpheme (e.g. intransitive morpheme like *-e*) attached to a verb stem. From the viewpoint of morphology, the theme NP assigned by nominative case in the QEC looks like a special (exceptional) phenomenon because the  $V_1$  verb does not accompany any morpheme which changes its case-marking.

I proposed that the verb *i(ru)* in the QEC maintains its status as an existential verb,

i.e. the verb *i(ru)* is a full verb as well as aspectual auxiliary. This duality is in sharp contrast with a canonical auxiliary *i(ru)*, which is fully grammaticalized. One crucial set of examples which supported my analysis was the co-occurrence of a *ni* locative (Section 2.2.3). Under my assumption that the morphologically transitive verb combines with the existential verb *i(ru)*, but not with the canonical auxiliary *i(ru)*, the morphological issue about the nominative-marking on the theme argument did not arise. My main claim relies on the behavior of other  $V_1$ - $V_2$  compounds (transitive-unaccusative pairs), where the argument structure of the whole is formed thorough the sharing and unification of arguments of these two verbs,  $V_1$  and  $V_2$ . Argument Unification suppresses non-shared arguments of  $V_1$  in  $V_{tr}$ - $V_{unacc}$  compounds. I have shown that this is true in the QEC. By Argument Unification, the theme argument of  $V_1$  is shared and mapped to the syntax and other agent and goal arguments of  $V_1$  are suppressed. The argument structure as a whole in the QEC thus ends up as  $\langle$  theme, location  $\rangle$ , where the locative argument comes from the head  $V_2$  verb (i.e. the existential *i(ru)*). It follows that the only element eligible for nominative is the theme.

Further evidence for the complex predicate analysis came from the durativity and atelicity in the QEC. In line with  $V_{tr}$ - $V_{unacc}$  compounds, the head verb *i(ru)* in the QEC also restricts  $V_1$  verbs. Since verbs of existence encode a continuation,  $V_1$  verbs that can participate in this construction must be durative and atelic. The syntactic complex predicate structure I proposed for the QEC, where *i(ru)* takes the  $V_2$  as its complement, also explained the fact that the locative *ni* and *de* co-occur because there are two possible locative positions ( $VP_1$  or  $VP_2$ ). The distinct interpretations for the locations marked by *ni/de* provided further support for their structural difference.

Assuming that *i(ru)* can function as an existential verb in the complex predicate structure, I have argued that the QEC is as an categorized existential sentence. In comparison with Russian negated existential sentences (NES), I observed that negated QECs patterned with NESs in the presupposition of existence (nominative NP) (Section 3.5). The evidence that a  $V_1$  cannot be negated in the QEC also confirmed of its existential status.

One important consequence of this “dual” analysis is that it can explain why the verb *i(ru)* in the QEC is immune to the effect of the animacy restriction. Decomposing the properties of the existential verb and the aspectual auxiliary into features, I have suggested that a Boolean combination of these features ([+ existential, + aspectual]) does in fact predict the existence of such a dual usage of the existential verb. Since *i(ru)* in the QEC functions as both an existential and aspectual auxiliary verb, it follows that animacy restrictions are neutralized.

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Chizuru Ito  
ito.chizuru@gmail.com