The Rescuing Effect of the Focus Particle *dake* 'only'[1)]

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1 Introduction

Since Milsark (1979) and Carlson (1980), it has been well known that there are two types of predicates in natural languages: stage-level predicates and individual-level predicates (SLPs and ILPs). Intuitively speaking, the former denote a transient property, while the latter denote a permanent property. The notable difference between them lies in their (in)compatibility with adverbs of quantification (Q-adverbs) such as *itumo* 'always':

(1) a. *Itumo Taro-wa genki-da.*
always Taro-Top fine-Cop
"Always, Taro is fine." (SLP)

b. * *Itumo Taro-wa nihonzin-da.*
always Taro-Top Japanese-Cop
"Always, Taro is Japanese." (ILP)

The contrast between (1a) and (1b) indicates that SLPs such as *genki-da* 'be fine' can be used with Q-adverbs but ILPs such as *nihonzin-da* 'be Japanese' cannot. On the basis of this data, many researchers such as Diesing (1992) and Kratzer (1995) claim that SLPs and ILPs have different argument structures.

There are, however, unnoticed data that cause several problems to the analyses in favor of this view. Consider the example with the focus particle *dake*

'only':

(2) a. Context A
Taro is an international business person, and he moves from country to country. We are talking about his life in a foreign country and how many Japanese people there are around him.
b. *Itumo Taro-dake-ga nihonzin-da.*
always Taro-DAKE-Nom Japanese-Cop
"Always, only Taro is Japanese."

From this data we can see that if the focus particle is added to a sentence with an ILP and a Q-adverb, the resulting sentence becomes acceptable.[2)] As shown below, however, the focus particle loses the rescuing effect in another context:

(3) a. Context B
Taro got an MBA at an international business school. While he was at the school, he shared a house with three students, Alex, Chris and Dave. All of them are from the US. They decided to hold a reunion every two years after they graduated. They promised not to gather when any one of them cannot attend.
b. * *(Dousoukai-o suru toki-wa,) itumo Taro-dake-ga nihonzin-da.*
reunion-Acc hold when-Top, always Taro-DAKE-NOM Japanese-Cop
"(When they hold a reunion,) always only Taro is Japanese."

At this point, the following question arises:

(4) Why does the focus particle *dake* have a rescuing effect in appropriate contexts?

In this paper I argue against Kratzer's (1995) analysis in light of the new data and answer this question by utilizing a contextual variable (von Fintel (1994) and Martí (2003)), which is needed to derive an adequate truth condition of a sentence with *dake*.

The structure of this paper is as follows. In section 2, I will review Kratzer

(1995) and point out the problems therein. In section 3, I will propose an alternative analysis and section 4 will conclude this paper.

2 Review of Kratzer (1995) and the Problems

In this section I will review Kratzer (1995) as a representative of the analyses based on the view that SLPs and ILPs have different argument structures and point out that her analysis faces two problems in analyzing the examples with *dake*. After that, I will present the desiderata for an adequate analysis of the new data.

2.1 Kratzer (1995): Difference in Argument Structure

As a constraint on quantifiers in general, Kratzer (1995) proposes the constraint in (5):

(5) Prohibition against Vacuous Quantification (Kratzer 1995:131)
For every quantifier *Q*, there must be a variable *x* such that *Q* binds an occurrence of *x* in both its restrictive clause and its nuclear scope.

Simply put, the above constraint says that there must be a variable for Q-adverbs to bind.

In addition, Kratzer (1995) argues that SLPs and ILPs have different argument structures as in (6):

(6) SLPs and ILPs differ in their argument structures: only the former have an event argument.

Under this analysis, the argument structures of the SLP *genki-da* and the ILP *nihonzin-da* are represented as follows:

(7) a. *genki-da*: < event, theme >
b. *nihonzin-da*: < theme >

The important thing for the following discussion is that only SLPs have an event

variable for Q-adverbs to bind.

Given these ideas, the LFs of (1a) and (1b) are represented as in (8), where the letter *e* stands for an event variable and the letter *C* for some contextually determined information: [3)]

(8) a. LF of (1a)
Always$_e$ [*C* (Taro, *e*)] [fine (Taro, *e*)]
b. LF of (1b)
* Always$_e$ [*C* (Taro, *e*)] [Japanese (Taro)]

In (8a), the predicate *genki-da* is an SLP, and the Q-adverb can bind event variables in both its restrictor and its nuclear scope. Therefore, (1a) does not violate the constraint above and is correctly predicted to be acceptable. In (8b), on the other hand, there is no event variable in the nuclear scope, since the predicate is an ILP. This example violates the constraint in (5), resulting in its unacceptability. In this way, Kratzer's (1995) analysis captures the incompatibility of ILPs with Q-adverbs.

2.2 Arguments against Kratzer's (1995) analysis

As is clear from the analysis of (1a) and (1b), the distribution of Q-adverbs heavily depends on the presence or absence of variables. Therefore, her analysis makes the prediction in (9):

(9) If a sentence with a Q-adverb is acceptable, there must be a bindable variable.

With this prediction in mind, let us turn to the new data presented in section 1. Recall that if we add the focus particle to a sentence with an ILP and a Q-adverb, the sentence becomes acceptable in the appropriate context (=(2b)). Given (9), the example in (2b) should have (10b) as its LF:

(10) a. Itumo Taro-dake-ga nihonzin-da. (=(2b))
b. Always$_e$ [*C* (John, *e*)] [Japanese (Taro-dake, *e*)]

In (10b), the predicate *nihonzin-da* has an event variable and the Q-adverb binds the event variable in both its restrictive clause and nuclear scope. Since the difference between (1b) and (2b) lies in the existence of *dake*, we have to assume that the focus particle triggers an operation like (11) to derive the LF representation presented above:

(11) The Operation Trigged by *dake*
The focus particle *dake* changes ILPs into SLPs that contain an event argument in their argument structures.

If we assume that *dake* behaves as in (11), the predicate *nihonzin-da* in (2b) is turned into an SLP with an event variable and thus the vacuous quantification should be avoided. Kratzer's (1995) analysis therefore seems to capture the fact that (2b) is acceptable. There are, however, at least two problems in this analysis, to which we will turn now.

2.2.1 Problem 1: Strangeness of (11)

To introduce the first problem, let us consider a coercive phenomenon where an ILP is reinterpreted as an SLP in a suitable context:

(12) a. Context
A strange law is enforced in Japan and people there can change their nationalities every day.
b. *Itumo Taro-wa nihonzin-da*
always Taro-Top Japanese-Cop.
"Always, Taro is Japanese."

The predicate *nihonzin-da* is interpreted as an ILP when it is used out of the blue. As shown in (12b), however, if we set up a suitable context, the same predicate is reinterpreted as an SLP and becomes compatible with Q-adverbs. Given this fact, it is not a surprise that *dake* can trigger the operation in (11).

However, the characteristic property of coercive phenomena is that the reinterpreted predicate denotes a transient property (i.e., in the above case, one's nationality can change every day). Therefore, before accepting (11), we should

test the prediction below:

(13) If *dake* changes an ILP into an SLP with an event variable, the resulting predicate should denote a transient property in some sense.

To see whether this prediction is correct, let us begin with considering the intuitive meaning of a sentence with *dake*:

(14) a. *Taro-dake-ga* *nihonzin-da.*
Taro-DAKE-Nom Japanese-Cop
"Only Taro is Japanese."
b. Intuitive Meaning
Taro is Japanese and no one but Taro is Japanese

Intuitively, (14a) conveys the meaning in (14b). Note that the predicates *nihonzin-da* in (14b) do not denote a transient property as in (12). Moreover, as shown below, the particle *dake* presupposes that its prejacent (i.e., the left conjunct of (14b)) is true:

(15) a. Question
Taro-dake-ga *nihonzin-desu-ka?*
Taro-DAKE-Nom Japanese-Cop-Q
"Is only Taro Japanese?"
b. Conditional
Taro-deke-ga *nihonzin-na-ra,* *kare-wa* *sabisii-da-rou.*
Taro-DAKE-Nom Japanese-Cop-if he-Top lonely-Cop-will
If only Taro is Japanese, he will be lonely.

In the above examples, the truth of the proposition *Taro-wa nihonzin-da* is kept intact under the question and the conditional. This is one of the characteristics of presuppositional meaning.[4)] From these observations, we can conclude that the predicate *nihonzin-da*, when used with *dake*, does not denote a transient property. This means that the above prediction is not correct, and the operation trigged by *dake* is strange in that the resulting predicate with an event argument

does not denote a transient property in any sense.

2.2.2 Problem 2: Two Types of *dake*

As shown above, Kratzer's (1995) analysis has to assume that the particle *dake* triggers a strange operation. In addition, even if we admit that operation, there remains another problem. Recall that in Context B, the existence of *dake* does not enable the ILP to be used with the Q-adverb:

(3) a. Context B
Taro got an MBA at an international business school. While he was at the school, he shared a house with three students, Alex, Chris and Dave. All of them are from the US. They decided to hold a reunion every two years after they graduated. They promised not to gather when any one of them cannot attend.
b. * *(Dousoukai-o suru toki-wa,) itumo Taro-dake-ga nihonzin-da.*

The unacceptability of this example forces us to admit the existence of two types of *dake*: one that can supply an event argument and another that cannot. This is too ad hoc, and Kratzer's (1995) analysis, therefore, lacks explanatory power.

2.3 Interim Summary and Desiderata

In this section, I reviewed Kratzer's (1995) analysis and pointed out two problems, which are summarized below:

(16) a. Problem 1: Strangeness of (11)
The operation in (11) is strange in that it changes an ILP into an SLP with an event variable but the resulting predicate does not express a transient property.
b. Problem 2: Two Types of *dake*
We are forced to admit the existence of two types of *dake*: one that can trigger the operation in (11) and another that cannot.

These problems arise because in her analysis, SLPs and ILPs have different argument structures and Q-adverbs are sensitive to the presence or absence of

variables. In order to account for the new data, we need an analysis based on (i) a new characterization of SLPs and ILPs, (ii) a way to capture the difference of *dake* between Context A and Context B, and (iii) a constraint on Q-adverbs that does not resort to bindable variables. In what follows I will discuss these desiderata in this order and propose an alternative analysis.

3 Proposal

3.1 A New Characterization of SLPs and ILPs

First, I assume that both SLPs and ILPs have time arguments denoting time intervals of type *i*:

(17) a. $[\![\textit{genki-da}]\!] = \lambda x.\lambda t.\ x$ is fine at t $\langle e,\langle i, t\rangle\rangle$
b. $[\![\textit{nihonzin-da}]\!] = \lambda x.\lambda t.\ x$ is Japanese at t $\langle e,\langle i, t\rangle\rangle$

These predicates have no difference in argument structure, so we need another way to differentiate these predicates. To this end, I propose that ILPs denote a kind of constant function defined as in (18):

(18) A function f of type $\langle e,\langle i, t\rangle\rangle$ is an individual-level predicate iff $\forall x \forall t \forall t'$ $[f(x)(t) = f(x)(t')]$

According to (18), ILPs, once they take an individual argument, return the same value ("true" or "false") regardless of what time argument they take.

To make the point, consider the following three possibilities:

(19) a. Possibility 1
$[\lambda t.$ Taro is Japanese at $t](t_1) = 1$ $[\lambda t.$ Taro is Japanese at $t](t_2) = 1$ $[\lambda t.$ Taro is Japanese at $t](t_3) = 1$
b. Possibility 2
$[\lambda t.$ Taro is Japanese at $t](t_1) = 0$ $[\lambda t.$ Taro is Japanese at $t](t_2) = 0$ $[\lambda t.$ Taro is Japanese at $t](t_3) = 0$
c. * Possibility 3
$[\lambda t.$ Taro is Japanese at $t](t_1) = 1$ $[\lambda t.$ Taro is Japanese at $t](t_2) = 0$ $[\lambda t.$ Taro is Japanese at $t](t_3) = 1$

In (19a) and (19b) the predicate *nihonzin-da* returns the same values regardless

of time arguments. This means that Taro's nationality is constant across time intervals and in this sense, the predicate denotes a permanent property. In (19c), on the other hand, the predicate returns different values across different time intervals, which means that Taro's nationality changes across time intervals and the predicate denotes a transient property. Thanks to (18), (19c) is ruled out and we can capture the fact that ILPs denote a permanent property without resorting to the difference in argument structure.

3.2 The Semantics of *dake*

Following Rooth's (1985) analysis of the focus particle *only*, I assume that the focus particle *dake* has two meaning contents: a negative universal and a presupposition.[5)] In what follows, I use the ∂-operator proposed in Beaver (2001) to represent a presuppositional content: the formula Φ in ∂(Φ) denotes a presuppositional content. A lexical entry for *dake* based on this idea is given in (20):

(20) $[\![\textit{dake}]\!] = \lambda x.\lambda P_{\langle e,\langle i,t\rangle\rangle}.\lambda t.$ $\underbrace{\partial(P(x)(t))}_{\text{Presupposition}}$ $\wedge$ $\underbrace{\forall y[y \neq x \rightarrow \neg P(y)(t)]}_{\text{Assertion}}$

(based on Rooth (1985))

Let me illustrate how this lexical entry derives the truth condition of a sentence with *dake*:

(21) a. *Taro-dake-ga nihonzin-da*.

b. $[\![$ (21a) $]\!]$
$= [\![\textit{dake}]\!] ([\![\textit{Taro}]\!]) ([\![\textit{nihonzin}]\!])$
$= \lambda t.\partial$ (Taro is Japanese at t) $\wedge$ $\forall y[y \neq$ Taro $\rightarrow y$ is not Japanese at t]

c. (21a) is defined at t only if Taro is Japanese at t (Presupposition). If defined, it is true at t iff for every y, if y is not Taro, y is not Japanese at t (Assertion).

The focus particle *dake* takes two arguments, *Taro* and *nihonzin-da*, and returns the proposition in (21b). There is, however, a problem in this analysis. Note the underlined part in (21c). The universal quantifier quantifies over non-restricted individuals, which leads to a strong truth condition requiring that there is no

Japanese other than Taro in the world.

To solve this problem, I use a contextual variable *C*, which has been proposed to analyze the phenomenon called a quantifier domain restriction (see von Fintel (1994) and Martí (2003)), and assume that *dake* takes this variable as its first argument, as shown below: [6)]

(22) $[\![dake]\!] = \lambda C_{\langle e,\langle i,t\rangle\rangle}.\lambda x.\lambda P.\lambda t.\ \partial(P(x)(t)) \wedge \forall y[C(y)(t) \wedge y \neq x \rightarrow \neg P(y)(t)]$

If (21a) is uttered in the context in (23a), this revised lexical entry gives us the truth condition in (23d):

(23) a. Context
We are talking about the nationalities of the people in this room

b. Simplified LF of (21a)
[[[Taro] [dakeC_1]] [nihonzin-da]]

c. g: = [1 → $\lambda x.\lambda t.$ x is a person in this room at t]

d. $[\![(21a)]\!]^g$
$= [\![dake]\!]^g ([\![C_1]\!]^g) ([\![Taro]\!]^g) ([\![nihonzin]\!]^g)$
$= \lambda t.\partial$(Taro is Japanese at t) $\wedge \forall y[g(C_1)(y)(t) \wedge y \neq$ Taro → y is not Japanese at t]
$= \lambda t.\partial$(Taro is Japanese at t) $\wedge \forall y[y$ is a person in this room at $t \wedge$ $y \neq$Taro→ y is not Japanese at t]

e. (21a) is defined at t if Taro is Japanese at t. If defined, it is true at t iff for every y such that y is a person in this room at t and y is not Taro, then y is not Japanese at t.

The contextual variable C_1 is assigned to the value in (23c) by the assignment function g. The particle *dake* takes C_1, *Taro*, and *nihonzin-da*, and the result is (23d). This truth condition requires that there is no Japanese other than Taro in this room. Thanks to the existence of this contextual variable, the universal quantification in the assertive part is over the people in this room who are not Taro and the adequate truth condition is derived.

3.3 A Variable-Free Constraint on Q-adverbs

Following Stump (1985), I assume that Q-adverbs are generalized quantifiers over sets of time intervals:

(24) $[\![\textit{itumo}]\!]^g = \lambda p_{\langle i,t\rangle}.\lambda q_{\langle i,t\rangle}.\lambda t.\forall t'[t' \leq t \wedge p(t') \rightarrow q(t')]$
(based on Stump (1985))

In addition, I assume that in the absence of explicit restrictors, Q-adverbs take as their first argument a contextual variable of type $\langle i, t\rangle$, whose value is determined by an assignment function *g*.

To illustrate, let us consider a sentence with a Q-adverb. Suppose that (25b) is uttered in the context where we are talking about what Taro does in his free time. The lexical entry in (24) derives the truth condition in (25e):

(25) a. Context: We are talking about what Taro does in his free time.
b. *Itumo Taro-wa LGB-o yomu.*
always Taro-Top LGB-Acc read
"Always, Taro reads LGB."
c. g:= [1 → λ*t*. Taro is free at *t*]
d. $[\![$ (25b) $]\!]^g$
$= [\![\textit{itumo}]\!]^g ([\![C_1]\!]^g) ([\![\textit{Tar-wa LGB-o yomu}]\!]^g)$
$= \lambda t.\forall t'[t' \leq t \wedge g(C_1)(t') \rightarrow$ Taro reads LGB at $t']$
$= \lambda t.\forall t'[t' \leq t \wedge$ Taro is free at $t' \rightarrow$ Taro reads LGB at $t']$
e. (25b) is true at *t* iff for every *t′* such that *t′* is a subinterval of *t* and Taro is free at *t′*, Taro reads LGB at *t′*.

The Q-adverb *itumo* takes two propositions, C_1, whose value is determined as in (25c), and the proposition that Taro reads LGB. The result is (25e), which says that (25b) is true iff for every subinterval *t′* of *t*, both of these propositions hold.

Note that in the current analysis, vacuous quantification never happens, since ILPs as well as SLPs have time arguments and Q-adverbs can bind variables in any case. We therefore need another constraint on Q-adverbs that does not resort to the presence or absence of bindable variables. For this purpose, I

adopt Percus's (2007) pragmatic constraint on Q-adverbs:

(26) Let Q be the relevant kind of generalized quantifier and A, B two sets. Then the statement $Q\ A\ B$ is pragmatically deviant in a common ground CG if there is a proper subset A' of A such that $CG \models Q(A)(B) \Leftrightarrow Q(A')(B)$.
(Percus 2007:210)

The above constraint says that the use of Q-adverbs is banned under the following condition where if a sentence with a Q-adverb is true in a small set of time intervals (=A'), it automatically follows that it is true in a larger set of time intervals (=A).

Let us see how this constraint rules out the example with a Q-adverb and an ILP. Take, for instance, the example in (1b). Its truth condition is given in (27c) and visually represented in Figure 1:

(27) a. **Itumo Taro-wa nihonzin-da.* (=1b)

b. $[\![(1b)]\!]^g$
$= [\![\textit{itumo}]\!]^g ([\![C_1]\!]^g) ([\![\textit{Taro-wa nihonzin-da}]\!]^g)$
$= \lambda t. \forall t' [t' \leq t \wedge g(C_1)(t') \rightarrow$ Taro is Japanese at $t']$

c. Truth Condition of (1b)
(1b) is true at t iff for every t', if t' is a subinterval of t and C_1 is true at t', Taro is Japanese at t'.

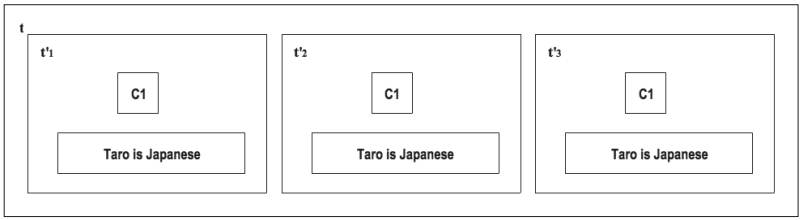

Figure 1: Truth Condition of (1b)

In Figure 1, the set A in (26) corresponds to the set consisting of the three time intervals, t'_1, t'_2 and t'_3. Take a proper subset A' consisting of time interval t'_1 and suppose that the proposition that Taro is Japanese is true at t'_1 . From this, we

can draw a conclusion that this proposition is also true at t'_2 and t'_3. The reason is that given (18), the predicate *nihonzin-da* returns the same truth value regardless of the time intervals. Therefore, this sentence violates the constraint in (26), resulting in its unacceptability. In this way, Percus's (2007) constraint can rule out a sentence with an ILP without reference to bindable variables.

3.4 Illustration

Let us start with the analysis of the sentence with *dake* under Context A, which is repeated below:

(2) a. Context A
Taro is an international business person and he moves from country to country. We are talking about his life in a foreign country and how many Japanese people there are around him.
b. *Itumo Taro-dake-ga nihonzin-da.*
always Taro-only-Nom Japanese-Cop
"Always, only Taro is Japanese."

The truth condition of (2b) is given in (28d):

(28) a. Simplified LF of (2b)
[Itumo$_{C_1}$ [Taro dake$_{C_2}$ -ga nihonzin-da]]
b. $g := [1 \rightarrow \lambda t.$ Taro lives in a foreign country at $t]$
$g := [2 \rightarrow \lambda x.\lambda t.\ x$ is a person around Taro at $t]$
c. $[\![(2b)]\!]^g$
$= [\![itumo]\!]^g ([\![C_1]\!]^g) ([\![dake]\!]^g ([\![C_2]\!]^g) ([\![Taro]\!]^g) ([\![nihonzin\text{-}da]\!]^g))$
$= \lambda t. \forall t' [\ t' \leq t \wedge g\ (C_1)\ (t')$
$\rightarrow \forall y [g\ (C_2)\ (y)\ (t') \wedge y \neq$ Taro $\rightarrow y$ is not Japanese at $t'\ ]$
$\wedge\ \partial$ (Taro is Japanese at $t')]$
$= \lambda t. \forall t' [\ t' \leq t \wedge$ Taro lives in a foreign country at t'
$\rightarrow \forall y [y$ is a person around Taro at $t' \wedge y \neq$ Taro $\rightarrow y$ is not Japanese at $t'\ ] \wedge \partial$(Taro is Japanese at $t')]$
d. Truth Condition of (2b)
(2b) is defined at t if Taro is Japanese at t. If defined, it is true iff for

every t', if t' is a subinterval of t and Taro lives in a foreign country at t', then for every y, if y is a person around Taro at t' and y is not Taro, y is not Japanese at t'.

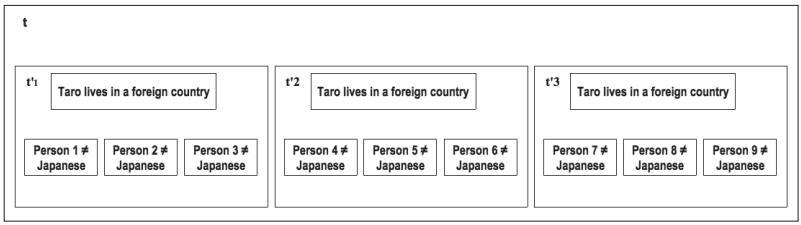

Figure 2: Truth Condition of (2b)

Let us consider whether or not this example violates the constraint in (26). First, take a proper subset A' of A that consists of one time interval t'_1 and suppose that the proposition *Taro-dake-ga nihonzin-da* holds at this time interval. From this, we cannot draw the conclusion that this proposition holds at t'_2 and t'_3. The reasoning goes as follows.

As shown in (28b), the value of C_2 is the set of a person who is around Taro at each time interval, and the members of this set can vary across time intervals. This means that we take into consideration different individuals at different time intervals as depicted in Figure 2. In this situation, if the proposition is true at t'_1, we cannot conclude that it is also true at other intervals, since a person other than Person 1 to Person 3 can be Japanese. Hence, the example in (2b) does not violate the constraint in (26) and is correctly predicted to be acceptable under the current analysis.

Let us turn to the unacceptable example with *dake*, which is repeated below:

(3) a. Context B
Taro got an MBA at an international business school. While he was at the school, he shared a house with three students, Alex, Chris and Dave. All of them are from the US. They decided to hold a reunion every two years after they graduated. They promised not to gather when any one of them cannot attend.

b. * *(Dousoukai-o suru toki-wa,) itumo Taro-dake-ga nihonzin-da.*

reunion-Acc have when-Top, always Taro-DAKE-NOM Japanese-Cop
"(When they have a reunion,) always only Taro is Japanese."

The truth condition of this example is given below:

(29) a. Simplified LF of (3b)
[Itumo$_{C_1}$ [Taro dake$_{C_3}$ -ga nihonzin-da]]

b. g := [1 → λt. they hold a reunion at t]
g := [3 → λx.λt. x is a person attending a reunion at t]

c. $[\![(3b)]\!]^g$
$= [\![itumo]\!]^g ([\![C_1]\!]^g) ([\![dake]\!]^g ([\![C_3]\!]^g) ([\![Taro]\!]^g) ([\![nihonzin\text{-}da]\!]^g))$
$= \lambda t. \forall t' [\, t' \leq t \wedge g\,(C_1)\,(t')$
$\rightarrow \forall y [g\,(C_3)\,(y)\,(t') \wedge y \neq$ Taro $\rightarrow y$ is not Japanese at t'] $\wedge$ ∂(Taro is Japanese at t')]
$= \lambda t. \forall t' [\, t' \leq t \wedge$ they hold a reunion at t'
$\rightarrow \forall y [y$ is a person attending a reunion at $t' \wedge y \neq$ Taro $\rightarrow y$ is not Japanese at t'] $\wedge$ ∂(Taro is Japanese at t')]

d. Truth Condition of (3b)
(3b) is defined at t iff Taro is Japanese at t. If defined, it is true at t iff for every t', if t' is a subinterval of t and they hold a reunion at t', then for every y, if y is a person attending a reunion at t' and y is not Taro, y is not Japanese at t'.

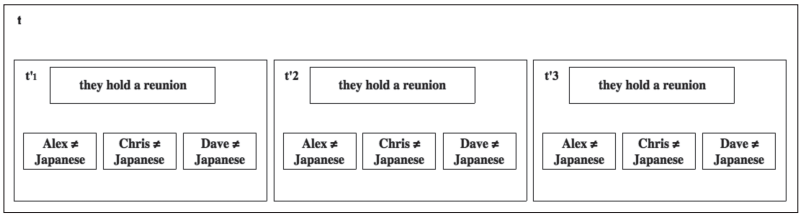

Figure 3: Truth Condition of (3b)

Let us check whether or not this example violates the constraint in (26). Again, take a proper subset A' of A that consists of one time interval t'_1 and suppose that the proposition *Taro-dake-ga nihonzin-da* holds at this time interval.

As shown above, the value of C_3 is the set of people attending a reunion. Unlike (2b), the members of the set do not vary from time to time. In this case, the same individuals, Alex, Chris, and Dave, are relevant as shown in Figure 3. In addition, the ILP *nihonzin-da* denotes a permanent property in the sense of (18). Given these facts, we can draw the conclusion that the proposition *Taro-dake-ga nihonzinda* is true at t'_2 and t'_3 . This example, therefore, violates the constraint in (26), resulting in its unacceptability.

The above explanation of the contrast between (2b) and (3b) offers the answer to the question in (4) as follows:

(30) a. The focus particle *dake* takes a contextual variable *C* as its first argument.
b. The value of *C* can vary across time intervals in appropriate contexts. If this value returns a set of different individuals at different time intervals, the focus particle exhibits a rescuing effect. Otherwise, it does not.

The proposed analysis predicts that the existence of the expression specifying and fixing the value of *C* should lead to the unacceptability. The example in (31) is a case in point:

(31) * *Taro, John, sosite Michael-no-nakade, itumo Taro-dake-ga nihonzin-da.*
Taro, John, and Michael-Gen-of, always Taro-only-Nom Japanese-Cop
"Of Taro, John, and Michael, only Taro is always Japanese."

In (31), the phrase headed by *naka-de* specifies and fixes the value of *C*. Hence, in each time interval, we take into consideration the same individuals (John and Michael) and check whether or not they are Japanese. Given the predicate *nihonzin-da* denotes a permanent property in the sense of (18), this sentence violates the constraint in (26). Therefore, the unacceptability is derived as expected, and this example supports the current analysis.

4 Conclusion

This paper addressed the question of why the focus particle *dake* has a rescuing effect in appropriate contexts. I began by demonstrating that Kratzer's (1995) analysis faces two problems in accounting for the data with *dake*. As an alternative, I offered an analysis based on three factors: (i) SLPs and ILPs do not differ in their argument structure and only the latter denote a kind of constant function (=(18)), (ii) the focus particle *dake* takes as it first argument a contextual variable *C* (=(20)), and (iii) Q-adverbs are subject to Percus's (2007) pragmatic constraint (=26). Then, I attributed the difference between (2b) and (3b) to the nature of the value of *C*, thereby answering the question as in (30).

Let me conclude this paper with some brief remarks about an interesting question. Does every focus particle have the same rescuing effect as *dake*? As shown below, the answer is "no":

(32) a. Focus Particle *mo* 'also'
* *Itumo Taro-mo nihonzin-da.*
always Taro-MO Japanese-Cop
"Always, Taro is also Japanese.

b. Focus Particle *sae* 'even'
* *Itumo Taro-sae nihonzin-da.*
always Taro-SAE Japanese-Cop
"Always, even Taro is Japanese.

The unacceptability of these examples indicate that the focus particles *mo* 'also' and *sae* 'even' have no rescuing effect. From this observation, we can see that there are two types of focus particles. This in turn raises other questions. Why are there two types of focus particles? What semantic or pragmatic properties divide focus particles into two types? I hope that my future research will reveal intricate aspects of focus particles by addressing these questions.

[Notes]

1) This paper is an extensively revised version of the presentation at the 147th Meeting of the Linguistic Society of Japan held at Kobe City University of Foreign Studies on November 23-24, 2013. I would like to thank Eri Tanaka and Sadayuki Okada for their helpful comments. Any errors are of course my own.
2) There is another difference between (1b) and (2b): in the latter the particle *ga* is used instead of *wa*. So, a reader may think that what is crucial here is not *dake* but *ga*. Consider, however, the examples below:

(i) a. ?? *Itumo Taro-ga nihonzin-da.*
always Taro-Nom Japanese-Cop
"Always, Taro is Japanese."
b. * *Taro-wa itumo nihongo-o sit-teiru.*
Taro-Top always Japanese.language-Acc know-TEIRU
"Taro always knows Japanese."
c. Context: Taro is often asked by a linguist whether or not he knows various languages the linguist studies but. . .
Taro-wa itumo nihongo-dake-o sit-teiru.
Taro-Top alawys Japanese.language-Acc know-TEIRU
"Taro always only knows Japanese."

The first example is at most marginal to me and if I accept this example, I need a strong accent on the subject *Taro*. This accent leads to the exhaustive interpretation of *Taro*, which amounts to the semantic function of *dake*. In addition, the contrast between the latter two examples indicate that *dake* has a rescuing effect in question if it is used in object positions. On the basis of these data, I argue that *dake* plays an important role here.

3) Following many authors, I assume that in the absence of explicit restrictors for Q-adverbs, they are determined by contextual information. See Rooth (1985) and von Fintel (1994) for the relevant discussions.
4) See Kadmon (2001) for the various characteristics of presuppositions.
5) I do not adopt the alternative semantics proposed by Rooth (1985), because *dake*, unlike *only*, does not use phonological information to determine alternatives.
6) In von Fintel (1994) and Martí (2003), this variable has a complex structure that consists of a function variable *f* and an individual variable *x*. For simplicity, I assume that the variable does not have this structure. As far as I can see, nothing hinges on this choice.

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SUMMARY

The Rescuing Effect of the Focus Particle *dake* 'only'

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Since Milsark (1979) and Carlson (1980), it has been well known that predicates in natural languages are classified into two groups: stage-level predicates (SLPs) and individual-level predicates (ILPs). The notable difference between these predicates is their (in)compatibility with adverbs of quantification (Q-adverbs). Based on this fact, many authors such as Diesing (1992) and Kratzer (1995) argue that these predicates have different argument structures. In this paper I point out that in appropriate contexts, the focus particle *dake* 'only' rescues an otherwise unacceptable sentence with an ILP and a Q-adverb and argue that Kratzer's (1995) analysis faces several problems. As an alternative, I offer an analysis in which (i) SLPs and ILPs do not differ in their argument structures but only the latter denote a kind of constant function, (ii) the particle *dake* takes a contextual variable *C*, and (iii) Q-adverbs are subject to the pragmatic constraint proposed by Percus (2007). I further argue that the value of *C* can vary across time intervals quantified over by Q-adverbs and this leads to avoid the violation of the pragmatic constraint.