Presumptive and Negative Presumptive Forms in the Ibaraki Dialect:
Another Glance at a Mystery of /r/ *

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0. Introduction

     This paper is concerned with presumptive and negative
presumptive forms in the Ibaraki dialect. Below are some
representative examples discussed here:

(1) a.   ikube   'You will go, won't you?'
    b.   tabeppe   'You will eat it, won't you?'
    c.   takakappe   'It is expensive, isn't it?'
(2) a.   osame   'You didn't push it, did you?'
    b.   tomme   'You didn't take it, did you?'
    c.   tabeme   'You didn't eat it, did you?'

The examples in (1) illustrate the attachment of the presumptive
particle.' The forms involve /be/ or /ppe/ at the end of the
words. They are identical in meaning but are different in the
form to which they are added. These examples in (2) show
suffixation of the negative presumptive forms.² (2b) is different
from the others in that /mme/ is involved.

     As far as I know, these kinds of expressions in Ibaraki
dialect, unlike those of other dialects (e.g., the Tokyo dialect)
have never undergone a thorough phonological analysis. Though
there is an extensive investigation that provides a dialect
distribution map of Kanto area (Ohashi (1976, 1990)), it does not
deal with the question of why these forms have such endings as
they are.

     In this paper, we argue that the apparent complexity of the
forms in the Ibaraki dialect turns out to be governed by
conditions and rules which are not unique to this dialect but are
operative in Japanese dialects in general. The organization of
this paper is as follows. In section 1, we clarify the mechanisms
of presumptive formation. In section 2, we discuss the
applicability of the process, providing data of negative

presumptive forms. Section 3 makes concluding remarks.

1. Presumptive Forms

In this section we attempt to capture the mechanisms of the
derivational process of presumptive forms. We argue that the
apparent complexity of the forms is due to a peculiar
characteristic of the segment /r/ in Japanese, i.e., a vowel after
/r/ is sporadically deleted (Post-/r/ Vowel Deletion).[3] In
section 1.1, we provide examples of verbs as basic data. Next in
section 1.2, we introduce a series of rules and conditions used in
the course of derivation. Then in section 1.3, we turn to
presumptive formation in the Ibaraki dialect. Section 1.4 is
devoted to a discussion of related issues.

1.1. Basic Data

Let us first look at examples of verbs. Presumptive forms
are given on the left side of the columns, indicative forms in the
middle and glosses on the right side.[4]

(3)	a.	aube	a-u	'fit'
	b.	ikube	ik-u	'go'
	c.	osube	os-u	'push'
	d.	tatube	tat-u	'cut'
	e.	sinube	sin-u	'die'
	f.	yomube	yom-u	'read'
	g.	oyogube	oyog-u	'swim'
	h.	toppe	tor-u	'take'
	i.	tabeppe	tabe-ru	'eat'
	j.	akeppe	ake-ru	'open'
	k.	suppe	su-ru	'do'
	l.	kuppe	ku-ru	'come'

As shown in (3), the presumptive forms in the Ibaraki dialect
involve /be/ or /ppe/ at the end of the words. At first glance,
there seems to be no systematicity in the selection of the two
forms. It seems that the corresponding indicative forms give us a

clue.[5]   When the indicative forms end with sequences of a
consonant other than /r/ plus /u/, /be/ is attached to the forms,
as in (3a-g).   In contrast, when the indicative forms end with
/ru/, whether /r/ is inside or outside of the stem, presumptive
forms involve /ppe/ at the end of the words as shown in (3h-1).[6]

Here we assume that the presumptive form is based on the
indicative form for two reasons.   One is that both a vowel-final
stem (e.g., *tabe-ru*) and a consonant-final stem (e.g., *tor-u*)
select the same forms ending with /ppe/.   The form of the stem is
not relevant.   Rather it is crucial whether the indicative form
ends with /ru/ or not.   The other is that the sequence of the
indicative + /be/ (e.g., *torube*) does not sound so bad, though the
sequence is not usually used in this dialect.   Therefore, we
assume that the presumptive form is derived through attachment of
the particle /be/ to the indicative form.

Then the derivational process of the presumptive form in
(3b), for example, goes as follows:

(4)   V C V   C V   V C V C V
      | | | | | | | | | |
      i k u + b e → i k u b e

Note that indicative suffixation (/ik + u/) takes place before
presumptive formation.   All the examples in (3) involve this
process.   As for the examples in (3a-g), the process of particle
attachment yields the surface form.

When it comes to the case of (3h-1), the matter does not seem
so simple as in the case of (3a-g).   Further processes change the
underlying form (e.g., /toru + be/) to the surface form (e.g.,
/toppe/).   Before we turn to a consideration of the derivational
system of the forms in (3h-1), we present rules and conditions
which constitute the system.

1.2.   Rules and Conditions

In this subsection, we introduce rules and conditions which
are involved in presumptive formation in the Ibaraki dialect.
There are four rules, (i.e., Post-/r/ Vowel Deletion, Gemination,

Devoicing and Coda Nasalization) and two conditions, (i.e., Coda Condition and Voiced Consonants Condition). We see how the series of these processes works.

1.2.1. Post-/r/ Vowel Deletion

Post-/r/ Vowel Deletion, which explains the fact that the sequence of /ru/ is missing in the presumptive forms, begins a series of processes. This is one peculiar characteristic of the segment /r/, i.e., a vowel after /r/ is sporadically deleted.[7] This rule is introduced in the study of *Onbin* phemonena in Tanaka *et al.* (1992). We cite this below:

(5) Post-r Vowel Deletion

$$V \rightarrow \emptyset \, / \, r\_\_ + [- \text{cont}]$$

This rule says that a vowel after the segment /r/ is deleted when it is followed by a segment with the feature [-continuant]. There is a morpheme boundary between a vowel and a consonant with [-continuant].[8]

Though this rule is omitted from their final account of verbal conjugation, Tanaka *et al.* (1992) notes that this rule has an independent motivation, providing the following facts. The forms given on the left side of the columns are input forms of the rule and those given in the middle are output forms of the rule and further processes. Glosses are given on the right side.

(6) a. wakaranai   wakannai   'I don't know.'
    b. sousuruto   sousutto   'Then'
    c. yaruka   yakka   'Shall we do it?'

Take (6a), for example, in which the sequence /ra/ is followed by /n/. Since /n/ has the feature [-continuant], the word satisfies the environment of the rule. Thus the post-/r/ vowel /a/ is deleted.

However, the forms listed in the middle of (6) are not arrived at only through this rule. The output form of this rule /wakarnai/ is not acceptable as it stands and hence further processes are needed to get the surface form. Then what prohibits

the output form and causes further processes?

1.2.2. Coda Condition

The answer to this question lies in consideration of the
proper syllable structure. Prohibition of a consonant other than
nasals in coda position is formalized in Itŏ (1986) as below.

(7) Coda Condition

        * C]
          |
        [- nas]

The Coda Condition (7) rules out a consonant with the feature
[-nasal] in coda position. This condition properly expresses the
absence of closed syllables other than /VN/ in Japanese. The same
is true of the Ibaraki dialect. Since the output form of the
rule /wakarnai/ involves a consonant in coda position and the
consonant /r/ has the feature [-nasal], it is blocked. Next we
consider a way to avoid the violation of this condition.

1.2.3. Gemination

To avoid the violation of the Coda Condition (7) Gemination
is used. This is formalized in Tanaka *et al.* (1992):

(8) Gemination

        C - - - C
        ‡ |
      root   root

This rule means that the root tier node of the second consonant
spreads onto the first consonant, as shown by the dashed line,
while the root tier node associated with the first consonant
delinks, as shown by the double-crossed line.

Itŏ (1989) argues that geminates are immune from the Coda
Condition because of its doubly linked nature, as shown in (9).

(9) C V C C V
     | | \ |
   k i t e   /kitte/ 'stamp'

Recall that the consonant which triggers Post-/r/ Vowel
Deletion has the feature [-continuant]. Thus, voiced stops /b,d,

g/, voiceless stops /p,t,k/ and nasals /m,n/ are subject to this
rule. In the case of voiced stops, the output form of this rule
is unacceptable, while in the case of voiceless stops and nasals
the output form is acceptable. What explains this contrast?

1.2.4. Voiced Consonants Condition

It is widely known that a sequence of voiced consonants is
not allowed in Japanese. This is captured by means of the
following condition:

(10) Voiced Consonants Condition

$$
\begin{array}{c}
[+voi] \\
*C \wedge C \\
[-nas]
\end{array}
$$
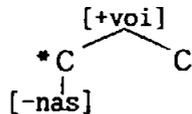
This condition means that the sequence of voiced consonants is
ruled out except for nasals. Thus in the case of voiced stops,
which have both features [+voice] and [-nas], sequences /bb/,
/dd/, /gg/ are blocked by this condition. In contrast, voiceless
stops and nasals lack the features, [+voice] and [-nasal],
respectively. Thus sequences /pp/, /tt/, /kk/ and /mm/, /nn/ are
not ruled out. Then what happens to the unacceptable voiced
geminate? Itô & Mester (1986) mention two strategies to avoid the
violation of the voiced geminates; Devoicing and Degemination
(i.e., Coda Nasalization).

1.2.5. Devoicing

We look at the devoicing rule, which is formulated as
follows:[*]

(11) Devoicing

$$
\begin{array}{ccc}
[+voi] & & [-voi] \\
*C \wedge C & \rightarrow & C \wedge C \\
[-nas] & & [-nas]
\end{array}
$$
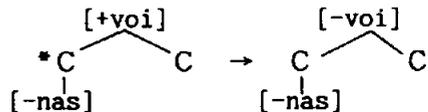
In (11) the feature [+voice], which is associated with a geminate,
is replaced by [-voice]. Unacceptable voiced geminates become

acceptable voiceless geminates. Itô & Mester (1986) observe that
the voiced geminates found in a few unassimilated loans (e.g.,
/handobaggu/ 'handbag', /beddo/ 'bed') are devoiced in casual
speech.

1.2.6. Coda Nasalization

Another strategy used to avoid the Voiced Consonant Condition
is Coda Nasalization. Itô & Mester (1986) observe that this rule
is a regular phonological process in Japanese used to avoid voiced
geminates. Coda Nasalization is formalized in Tanaka *et al.*
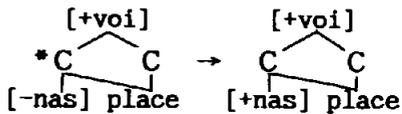(1992) as follows:

(12) Coda Nasalization

$$\text{[+voi]} \qquad \text{[+voi]}$$
$$*C \diagup\diagdown C \quad \rightarrow \quad C \diagup\diagdown C$$
$$\text{[-nas] place} \qquad \text{[+nas] place}$$

This rule says that the association of [+nasal] to the first
element of a voiced geminate renders the sequence acceptable.

Itô & Mester (1986) present an example of intensive
infixation to illustrate this process.

(13) togaru 'be pointed'   tongaru 'be pointed (int.)'

Intensive infixation involves insertion of a skeletal slot and
subsequent spreading of the adjacent consonant. Though the
sequence /gg/ is doubly linked and hence immune from the Coda
Condition, it is ruled out by the Voiced Consonants Condition. If
the feature [+voice] remains attached to the CV tier, the other
feature, i.e., [-nasal] must be changed. Then we derive the
acceptable homorganic cluster /ŋg/.

1.2.7. Summary

To sum up, we present the series of rules and conditions
discussed above in the following chart.

(14)   Post-/r/ Vowel Deletion (5)
         Coda Condition (7)
         Gemination (8)
         Voiced Consonants Condition (10)
      Devoicing (11)   Coda Nasalization (12)
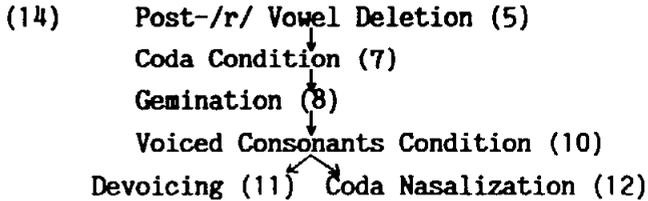
In section 1.2, we have introduced a series of rules and
conditions. First, Post-/r/ Vowel Deletion (5) applies. The
output form of the rule is blocked by the Coda Condition (7).
Then, Gemination (8) takes place to avoid the violation of the
Coda Condition. When the geminate is voiced and not nasal, it is
ruled out by the Voiced Consonants Condition (10). To avoid the
violation of this condition one of the two strategies are used;
Devoicing (11) or Coda Nasalization (12).

     In section 1.3, we analyze the data given in section 1.1 and
argue that the series of rules and conditions introduced in
section 1.2, is operative in the case of the Ibaraki dialect.

1.3. Derivation of Presumptive Forms

     As mentioned above in section 1.1, presumptive formation is
divided into two groups as to whether the indicative form ends
with /ru/ or not. While the latter (3a-g) show a straightforward
derivation as shown in (4), the former (3h-l) seem to involve a
complex derivational system. In this subsection, we reveal the
derivational process of the type in (3h-l), taking the sequence
/tabeppe/, for example.

     As mentioned in section 1.1, presumptive forms are derived
by attaching the presumptive particle /be/ to the indicative form.
Thus we assume /taberube/ is the underlying form for /tabeppe/.

     Since /ru/ is followed by a consonant with the feature
[-continuant], Post-/r/ Vowel Deletion (5) is operative. The
application of the rule yields the sequence /taberbe/ as in (15):

(15) C V C V C V C V (5) C V C V C C V
      | | | | | | | | | | | | | | |
      t a b e r u b e   →   t a b e r b e

The output form in (15) is ruled out by the Coda Condition (7).

Since /r/, which has the feature [-nasal], is in coda position,
the sequence /taberbe/ is not allowed.

To avoid the violation of the Coda Condition, Gemination (8)
is used. We apply this rule to the output form of (5) /taberbe/.

(16) C V C V C C V (8) C V C V C C V
      │ │ │ │ │ │ │   │ │ │ │ ╲│ │
      t a b e r b e   →   t a b e   b e

Since the particle-initial consonant is the voiced stop /b/, the
application of the rule yields the voiced geminate /bb/. This is
ruled out by the Voiced Consonants Condition (10).

A strategy adopted to avoid the violation of the condition in
this dialect is Devoicing (11). We apply this rule to the output
form of (8), /tabebbe/, as below:

(17) C V C V C C V (11) C V C V C C V
      │ │ │ │ ╲│ │   │ │ │ │ ╲│ │
      t a b e b e   →   t a b e p e
              │   │
            [+voi]   [-voi]

Then we finally get the presumptive form /tabeppe/. This
derivational process is true of all the /ru/-ending indicatives
listed in (3h-1).

The presumptive formation is summarized as follows:

(18) a. V C V C V
         │ │ │ │ │
         i k u b e

     b. C V C V C V C V (5) C V C V C   C V (8)
         │ │ │ │ │ │ │ │   │ │ │ │ │   │ │
         t a b e r u b e   →   t a b e r   b e →

         C V C V C C V (11) C V C V C C V
         │ │ │ │ ╲│ │   │ │ │ │ ╲│ │
         t a b e b e   →   t a b e p e

The presumptive forms in the Ibaraki dialect are derived through
the attachment of the particle /be/ to the indicative forms, which
are divided into the /ru/-ending form (18b) and others (18a).
The /ru/-ending form involves further processes to obtain the
surface form because of the peculiar nature of /r/. First the
/ru/-ending form conforms to Post-/r/ Vowel Deletion (5). Since
the output violates the Coda Condition (7), Gemination (8) is
applicable. The output voiced geminate is blocked by the Voiced

Consonants Condition (10), thus devoicing (11) takes place to obtain the surface form.

1.4. Related Forms

So far we have observed the derivational process of the presumptive form of verbs, in which the whole system in (14) is applicable. Now we turn to the case of other categories; adjectives and a copula.

1.4.1. Adjectives and a Copula

We provide presumptive forms of adjectives and sequences of adverb + copula below.[10,11] The presumptive forms for those categories are given on the left side of the columns, roots plus relevant sequences in the middle and glosses on the right side.

> (19) a. takakappe   taka-kar   'It is expensive, isn't it?'
>   b. samukappe   samu-kar   'It's cold, isn't it?'
> (20) a. kireidappe   kirei-dar   'It is beautiful, isn't it?'
>   b. soudappe   sou-dar   'Isn't it?'

Here we assume that the inputs of presumptive formation are the forms listed in the middle of the columns in (19-20) and leave it open whether the forms assumed here are tenable or not. We discuss this point in section 1.4.2.

Given the assumption that forms like /taka-kar/ are inputs of the presumptive formation, the same kind of explanation as in the case of verbs is available here. They differ in just one respect, i.e., Post-/r/ Vowel Deletion is irrelevant here. Since the input forms do not involve /rV/-sequence, Post-/r/ Vowel Deletion (i.e., the first rule in (14)) is not applicable. Forms like /taka-kar/ are subject to all the other processes in (14). Taking (19a), for example, we illustrate the derivation below:

> (21)   C V C V C V C C V   (8) C V C V C V C C V   (11)
> | | | | | | | | | | | | | | | | \ |
>   t a k a k a r b e →   t a k a k a   b e →
>
>   C V C V C V C C V
> | | | | | | \ |
>   t a k a k a   p e

As we mentioned above, the input form /taka-kar-be/ is first subject to the Coda Condition (7). Since /r/ has the feature [-nasal], it is not allowed in coda position. Then Gemination (8) takes place to avoid the violation of the Coda Condition. The output form /takakabbe/ is blocked by the Voiced Consonants Condition (10). Devoicing (11) changes this to the acceptable form /takakappe/.

1.4.2. Adequacy of the underlying forms

We now turn to the adequacy of the assumption that forms like /taka-kar/ or /sou-dar/ in (19-20) are proper underlying forms. The assumption is supported by two pieces of evidence in the Tokyo dialect; past forms and negative forms.

Below are examples of past forms in the Tokyo dialect:[12]

(22)	a.	takakatta	'It was expensive.'
	b.	samukatta	'It was cold.'
(23)	a.	kireidatta	'It was beautiful.'
	b.	soudatta	'It was right.'

(22a), for example, shows that /takakatta/ is derived from /taka-kar/ through /ta/ suffixation. If we assume that the underlying form does not have /r/, then we get unacceptable past form /takakata/.

Next we provide negative forms of adjectives in the Tokyo dialect.[13]

(24)	a.	takakarazu	'It is not expensive.'
	b.	samukarazu	'It is not cold.'

The suffix /azu/ attaches to the consonant-final stem, while /zu/ attaches to the vowel-final stem. Thus in (24a), /taka-kar/ is considered to be the underlying form of negative formation. If we assume that the underlying form does not have /r/, i.e., it is the vowel-final stem /taka-ka/, then we get unacceptable /takakazu/.

From these data, we can say it is not completely untenable to regard a form like /taka-kar/ as the underlying form of presumptive formation.

1.4.3. Cross-Dialectal Variation

So far we have examined data from the Ibaraki dialect, where
either /be/ or /ppe/ is used. According to the research in Ohashi
(1976) there is or was a dialect in the western part of Kanto area
(hereafter the west Kanto dialect), which involves the sequence
/mbe/ instead of /ppe/ used in the Ibaraki dialect:

(25) soudambe

Comparison of the two forms tells us that the two dialects use
different strategies to avoid the violation of the Voiced
Consonants Condition (10). Recall the series of rules and
conditions summarized in (14). The last stage of the processes
involves the alternative choice of Devoicing (11) and Coda
Nasalization (12). While Devoicing is selected in the Ibaraki
dialect as shown in (17), Coda Nasalization is selected in the
west Kanto dialect. We illustrate the derivational process of the
form in (25) below:

(26)
```
      C V V C V C C V (8) C V V C V C C V (12)
      | | | | | | | |     | | | | | | \ |
      s o u d a r b e  →  s o u d a   b e  →

      C V V C V C C V
      | | | | | | | |
      s o u d a m b e
```

As in the case of (20b), since /soudarbe/ is ruled out by Coda
Condition (7), the sequence becomes /soudabbe/ by Gemination (8).
Then, in this case Coda Nasalization is used to avoid the
violation of the Voiced Consonants Condition (10). Thus we obtain
the surface form /soudambe/.

2. Applicability of Post-/r/ Vowel Deletion

In the preceding section we have revealed the derivational
process of presumptive forms. In that case, whenever the
environment is satisfied, Post-/r/ Vowel Deletion is applicable
and hence the rest of the process works. However there is a case
in which the rule is not applicable even if the environment is
satisfied. This section discusses this point. In section 2.1, we

provide basic data in which not all instances of the sequence /rV/
are subject to Post-/r/ Vowel Deletion. In section 2.2, we
examine a possible approach to the applicability of Post-/r/ Vowel
Deletion. Then in section 2.3, we deal with a further issue.

2.1.   Basic Data
2.1.1. Negative Presumptive Forms

We first provide the paradigms of negative presumptive forms
below. Negative presumptive forms are given on the left side of
the columns, indicative forms in the middle and glosses on the
right side.

	(27) a.	awame	a-u	'It didn't fit, did it?'
	b.	ikame	ik-u	'You didn't go, did you?'
	c.	osame	os-u	'You didn't push it, did you?'
	d.	tatame	tat-u	'You didn't cut it, did you?'
	e.	siname	sin-u	'It didn't die, did it?'
	f.	yomame	yom-u	'You didn't read it, did you?'
	g.	oyogame	oyog-u	'You didn't swim, did you?'
	h.	tomme	tor-u	'You didn't take it, did you?'
	i.	tabeme	tabe-ru	'You didn't eat it, did you?'
	j.	akeme	ake-ru	'You didn't open it, did you?'
	k.	sime	su-ru	'You didn't do so, did you?'
	l.	kome	ku-ru	'He didn't come, did he?'

We assume that basically the suffix /ame/ attaches to the
consonant-final stem (27a-h) and /me/ attaches to the vowel-final
stem (27i-l) as in the case of the corresponding /mai/ or /nai/
suffixation in the Tokyo dialect.[14] However, the form in (27h) is
not arrived at only through /me/ suffixation.

Here again the same process works as in the case of
presumptive formation. Below is a derivation of (27h):

(28) C V C V C V (5) C V C C V (8) C V C C V
      | | | | | | | | | | | | | ＼ |
      t o r a m e →   t o r m e →   t o   m e

First /torame/ becomes /torme/ by Post-/r/ Vowel Deletion (5).
Then it undergoes Gemination (8) to avoid the violation of the

Coda Condition (7). Since the sequence /mm/ is not blocked by the Voiced Consonants Condition (10), the rest of the processes (i.e., Devoicing or Degemination) are irrelevant here.

Presumptive particle attachment discussed in section 1.1 and negative presumptive suffixation discussed here are straightforward illustration of Post-/r/ Vowel Deletion (5). Next we provide data which show that the application of the rule is limited to a certain suffix.

2.1.2. Negative Presumptive Potential Forms

The ending suffix /me/ can follow other stem-forming suffixes. Here we present representative examples of the sequence root + potential suffix + negative presumptive suffix on the left side, outputs of the processes (14) in the middle and glosses on the right side.

(29) a. oseme   'You cannot push it, can you?'
     b. yomeme   'You cannot read it, can you?'
     c. toreme   *tomme   'You cannot take it, can you?'
     d. kireme   *kimme   'You cannot cut it, can you?'
     e. taberareme taberamme   'You cannot eat it, can you?'
     f. mirareme   miramme   'You cannot see it, can you?'

In (29a-d), root forms are consonant-final and /e/ is used to express meaning of potential. When the potential suffix /e/ is attached to the /r/-ending root, it constitutes a /rV/-sequence as shown in (29c-d). The /rV/-sequences, however, do not undergo Post-/r/ Vowel Deletion. As for vowel-ending roots, the suffix /rare/ is used to express potential meaning. In this case, Post-/r/ Vowel Deletion is applicable as shown in (29e-f). The output forms are more natural in casual speech.

Here a question arises as to why the potential form /toreme/ does not undergo Post-/r/ Vowel Deletion. In the following subsection, we discuss the applicability of this rule in detail.

2.2. Derivational vs. Inflectional

In this subsection, incorporating the insight of de Chene (1987, 1988), we suggest that a distinction between derivational and inflectional suffixes is relevant to the applicability of Post-/r/ Vowel Deletion.

We repeat some representative data relevant to the discussion here. The inputs of Post-/r/ Vowel Deletion are given on the left side and the outputs on the right side.

(30) a. tor-u-be   toppe
     b. tabe-ru-be   tabeppe

(31)   tor-ame   tomme

(32) a. tor-e-me   *tomme
     b. tabe-rare-me   taberamme

All the examples in (30-32) involve /rV/-sequences. The forms in (30a-b) are examples of presumptive particle attachment, where the indicative suffix /u/ undergoes Post-/r/ Vowel Deletion. The form in (31) is an example of negative presumptive suffixation, where a part of the suffix is subject to the rule. Examples in (32) are negative presumptive potential forms, where the rule applies to a part of the suffix /rare/, as in (32b), but not to the suffix /e/, as in (32a). In what point is the suffix /e/ distinguished from other suffixes?

Following de Chene (1987, 1988), we attach importance to a distinction between derivational and inflectional suffixes. Here we review de Chene's discussion. Concerning the applicability of the /r/-epenthesis rule, which he proposes, the distinction between the two plays an important role. We cite the /r/-epenthesis rule below:

(33) $\emptyset$ → r / V]$_{..}$ __ V

This rule says the segment /r/ is inserted between a stem and a suffix to break a hiatus. The following representation is taken from de Chene (1987, 1988).

(34) a. [[[mi]ᵥ, ̲rare]ᵥ, ̲reba]ᵥ   'provided (he) is seen'

 b. [[mi] ᵥ, e] ᵥ,   'is visible'

If we apply this rule to the form in (34b), we get another word /mire/, which is an innovative version of /mirare/. He explains the failure of the rule (33) to apply to (34b) as follows. /e/ in (34b) is a derivational suffix, while /rare/ in (34a) is an inflectional suffix. They belong to different lexical strata. The /r/-epenthesis rule is applicable only at the latter stratum.

 Here we assume that the suffix /e/ in (29a-d) is a derivational suffix, contrasting with inflectional suffixes like the passive /(r)are/ and the causative /(s)ase/, which are productive and hence do not need to be learned as distinct lexical items (cf. Jacobsen (1992)).

 Given the assumption that the potential /e/ is a derivational suffix, /toreru/ is obtained like below in de Chene's framework.

(35)

Stratum X (derivational)	[tor[e]]
Stratum Y (inflectional)	[[tore]]ru]

← Bracketing Erasure
← /r/-epenthesis rule

Derivational suffixation takes place in Stratum X. When the form [tor[e]] goes out of Stratum X, it becomes [tore] by Bracketing Erasure (Kiparsky (1982)). de Chene's /r/-epenthesis rule is applicable only at Stratum Y. We claim that the same is true of Post-/r/ Vowel Deletion, i.e., Post-/r/ Vowel Deletion is applicable only at Stratum Y.'⁶

2.3. A Further Issue

 In this subsection we briefly discuss a further issue concerning the applicability of Post-/r/ Vowel Deletion.

 The problem concerning the applicability of Post-/r/ Vowel Deletion is complicated in the case of passive forms. The input

forms of the rule are given on the left side of the columns, the output forms of the process (14) are given in the middle and glosses are given on the right side.

(36) a. osareme   *osamme   'You weren't pushed, were you?'
     b. yomareme   *yomamme   'It wasn't read, was it?'
(37) a. torareme   ?toramme   'It wasn't taken, was it?'
     b. kirareme   ?kiramme   'It wasn't cut, was it?'
(38) a. taberareme #taberamme 'It wasn't aten, was it?'
     b. mirareme   #miramme   'You weren't seen, were you?'

(36) is totally unacceptable. Though the judgments of (37) and (38) differ from speaker to speaker, informants agree that the primary interpretation of (38) is the potential meaning, i.e., the sequence is fully acceptable in the potential sense as mentioned in section 2.1.2 but not in the passive sense (this is expressed by the mark # in (38)). This fact implies that we need future research on the semantics of /rare/ in terms of polysemy. These examples sound better, given an appropriate context.[14] It should be noted that when the suffix /rare/ becomes /ram/, the potential meaning is preferred.

At present I cannot give any satisfactory explanation to this fact. Here we simply point out a question to be solved in future research.

3. Conclusion

In this paper, we have clarified the following two points; One is the derivational process of the presumptive and negative presumptive form in the Ibaraki dialect. The other is the applicability of Post-/r/ Vowel Deletion.

As for the former, the presumptive particle /be/ attaches to the indicative form in the first place. Then the /ru/-ending indicative form undergoes Post-/r/ Vowel Deletion and the series of rules and conditions begins to apply. Since the output form is ruled out by the Coda Condition, it is subject to Gemination. Then to avoid the violation of the Voiced Consonants Condition,

Devoicing takes place and we obtain the surface form. However, in the case of negative presumptive potential formation Post-/r/ Vowel Deletion fails to apply to the suffix /e/.

As for the latter, we have argued, by incorporating the insight of de Chene(1987, 1988), a distinction of derivational and inflectional suffixes plays an important role in determining the applicability of the Post-/r/ Vowel Deletion.

NOTES

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¹ In this dialect, the particle /be/ has three meanings, i.e., question, invitation and will. The meaning of these expressions are disambiguated given a particular context and the pitch accents as illustrated below:

(i)a.　omae-wa ikube?　　　　　'You will go, won't you?'
　　　　　　　　L L H
　　 b.　moo ikube.　　　　　　　'Let's go now!'
　　　　　　 L H L
　　 c.　kyoo-wa hitori-de ikube　'I will go alone today.'
　　　　　　　　　　　　　 L L L

However, this distinction is not relevant here.

² As for the negative presumptive suffix /me/, it can express the action of the past, present or future, depending on context.

³ Previous studies point out two more peculiar characteristics of /r/ in Japanese. One is concerned with underspecification. /r/ is not specified for the feature [+voice] in *Rendaku* (Itô & Mester (1986)) and *Onbin* (Tanaka *et al.* (1992)) phenomena. The underspecified character of /r/ is also discussed in Mester & Itô (1989). The other is that /r/ is inserted between

a verbal stem and a suffix as a hiatus-breaking consonant in verbal inflection (de Chene (1987, 1988)).

[4] Note that in (3a) the underlying form for the indicative is /aw-u/.

[5] The indicative form is derived from the root form by /u/ suffixation in the case of the consonant-final stem (e.g., *ik-u*, *tor-u*). As for the vowel-final stem, the /r/-epenthesis rule proposed in de Chene (1987, 1988) is operative.

(i) $\emptyset \rightarrow r / V]_{vs} \_\_\_ V$

VS is an abbreviation of 'verbal stem'. The epenthetic /r/ is inserted between a verbal stem and a suffix to break a hiatus as shown in (ii).

(ii)
```
C V C V   V   (i) C V C V C V
| | | |   |       | | | | | |
t a b e + u   →   t a b e r u
```

[6] de Chene (1988) argues that /r/ serves as a buffer-segment and is inserted between a stem and a suffix rather than into a suffix.

[7] The rule may be triggered by the vocalic nature of the segment /r/, which constitutes a VV-like sequence when it is followed by a vowel. We do not discuss this point here.

[8] We find two examples which undergo Post-/r/ Vowel Deletion in a morpheme; /ussee/ (this is derived from /urusai/) and /kunnai/ (the input form is /kurenai/).

[9] I'm grateful to Yukiko Kazumi and Hideki Zamma for suggesting this sort of idea to me.

[10] It should be noted that there are two presumptive forms for adjectives, as shown below.

(i) a. takaibe   'It is expensive, isn't it?'
    b. takakappe   'It is expensive, isn't it?'

(i a) is derived from indicative form by attaching the particle /be/. We are concerned with the latter form.

It should also be noted here that the interrogative particle /ka/ shows similar behavior as the presumptive particle /be/ in

the case of verbs. Observe the following examples:

(ii) a. ikuka   'Do you go there?'

      b. tabekka   'Do you eat it?'

In the case of adjectives, however, /ka/ and /be/ do not attach to the same stem.

      c. takaika   'Is it expensive?'

      d. souka   'Is it so?'

   ᴵᴵ Some people have pointed out to me that /dahe/ is also heard in the western part of Ibaraki.

   ᴵˣ I am grateful to Hideki Zamma for pointing out these data to me.

   ᴵˢ I am grateful to Masao Okazaki for pointing out these data to me.

   ᴵ⁴ Though the treatment of the suffixes /mai/ and /amai/ is controversial, i.e., there is no agreement on the basic form and the derivational process of the other, we do not discuss this point here.

   ᴵˢ If we take these observation into consideration, Post-/r/ Vowel Deletion may be revised as follows (I am grateful to Masao Okazaki for suggesting this sort of idea to me):

(i) V → ∅ / (+)ₐ (ra) r (+)ᵦ __ + [-cont]
        Condition: + is realized in either a or b.

In the case where + is realized in a, /tabe-ru-be/ and /tabe-rare-me/, for example, become /tapeppe/ and /taberamme/, respectively. In the case where + is realized in b, /tor-u-be/ and /tor-ame/ become /toppe/ and /tomme/, respectively.

   ᴵ⁶ The acceptability of this type of sequence differs depending on the selection of verbs. Here we choose verbs which are compatible with this form for the purpose of the discussion here.

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