Da and the Zero Form as the Two Contracted Forms of the Japanese Copula*

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1. Introduction

This paper focuses on copular constructions with nominal predicates in Japanese. The Japanese copula has two present tense forms, dearu and da, as exemplified in (1).

(1) Taro-wa isya dearu/da.
Taro-Top doctor is
‘Taro is a doctor.’

The argument developed in this paper stands on the analysis that da is the contracted form of dearu (e.g. Nishiyama (1999)).

Further, the zero form of the copula like the one in (2) is taken into consideration, which previous researchers have not paid enough attention to. Following the Distributed Morphology framework (Halle and Marantz (1993)), I claim that the zero form is another morphologically contracted form of dearu.

(2) Taro-wa gakusei dearu/*da/∅ rasii/mitaida.
Taro-Top student is seem
‘Taro seems to be a student.’

(Narahara (2002: 157))

My proposal is that the realization of the zero form is constrained by morpho-phonological operations. Dearu has a structure as in (3), which is based on Nishiyama’s (1999) and Watanabe’s (in press) structures. The contraction to da is attributable to optional Fusion, as Nishiyama (1999) proposes. The item may be deleted after insertion due to a phonological operation. In this case, the zero form is realized.

* I am grateful to Akira Watanabe and Noriko Imanishi for giving me helpful comments and suggestions. All remaining errors are my own.

1 The abbreviations used in this paper are: Acc=Accusative, C=Complementizer, Excl=Exclamation, Gen=Genitive, Neg=Negation, Nom=Nominative, Q=Question Particle, Top=Topic.
As we will see below, an empirically adequate generalization about the distribution of the contracted forms of the copula has never been provided in previous literature. The main finding of this paper is that an empirically adequate descriptive generalization is drawn by taking into account the zero form of the copula. Dearu can contract if and only if: (i) it is used in indicative clauses, and (ii) it is not used adnominally.

2. The Distribution of Dearu and Da

In this section, we see the distribution of dearu and da. The environments are divided into three groups: (i) where both dearu and da are allowed, (ii) where only dearu is allowed, and (iii) where only da is allowed. The copula can be absent in some of the environments.

(i) Environments where both dearu and da are allowed are: declarative sentences (4), subordinate declarative clauses with the complementizer to (5), subordinate interrogative clauses (6), conditional clauses with to ‘if’ (7), sentences with a modal sooda ‘I heard that’ (8), and adverbial clauses with kara ‘because’ (9). Dearu/da can be absent in (4), (5), and (6).

(4) Are-wa tosyokan dearu/da/∅.
That-Top library is
‘That is a library.’ (Narahara (2002: 11))

(5) Taro-ga doroboo dearu/da/∅ to sinziru riyuu-ga aru.
Taro-Nom robber is C believe reason-Nom is
‘There is a reason to believe that Taro is a robber.’
Da and the Zero Form as the Two Contracted Forms of the Japanese Copula (Mioko Miyama)

   Taro-Nom student is Q Hanako-to asked

   ‘I asked Hanako whether Taro is a student.’

   Taro-Nom student is whether Hanako-to asked

   ‘I asked Hanako whether Taro is a student.’

c. Dare-ga gakusei dearu/da/∅ ka wakaranai.
   Who-Nom student is Q don’t know

   ‘I don’t know who is a student.’

(Narahara (2002: 169))

(7) Taro-ga dorobo o dearu/da to Hanako-ga kanasimu daroo.
   Taro-Nom robber is if Hanako-Nom feel sad I think

   ‘If Taro is a robber Hanako will feel sad.’

(8) Taro-wa gakusei dearu/da sooda.
   Taro-Top student is I heard that

   ‘I heard that Taro is a student.’

(9) Taro-ga gakusei dearu/da kara, gakuhi-ga kakaru.
   Taro-Nom student is because school fee-Nom cost

   ‘(I) have to pay school fees because Taro is a student.’

(ii) Environments where only dearu is allowed are: main clauses with modals other than sooda ‘I heard that’ (10), subordinate declarative clauses with koto (11), subordinate declarative clauses with yoo(-ni) (12), conditional clauses with nara ‘if’ (13), relative clauses (14), cleft constructions (15), no da constructions (16), comparative clauses (17), and adverbial clauses with node ‘because’ (18). Dearu can be absent in main clauses with rasio/mitaida (10d) and in conditional clauses with nara ‘if’ (13).

(10) a. Taro-wa gakusei dearu/da bekida.
    Taro-Top student is should

    ‘Taro should be a student.’

b. Taro-wa gakusei del(-wa-)aru/da mai.
    Taro-Top student is won’t be

    ‘Taro won’t be a student.’

c. Taro-wa gakusei dearu/da yooda.
    Taro-Top student is seem

    ‘Taro seems to be a student.’
d. Taro-wa gakusei dearu/*da/∅ rasii/mitaida.
   ‘Taro seems to be a student.’
   (Narahara (2002: 175))

(11) Taro-ga gakusei dearu/*da koto-o wasureta/nozonda.
   ‘I forgot/wished that Taro is a student.’

(12) Taro-ni gakusei dearu/*da yoo(-ni) meizita.
   ‘I ordered Taro to be a student.’

(13) Taro-ga doroboo dearu/*da/∅ nara, Hanako-wa kanasimu daroo.
   ‘If Taro is a robber Hanako will feel sad.’

(14) Titiyo-ga isya dearu/*da gakusei-ga soko-ni iru.
   ‘A student whose father is a doctor is there.’

(15) Taro-ga gakusei dearu/*da no-wa kyuuzitu dake da.
   ‘It is only on holidays when Taro is a student.’

(16) Taro-ga gakusei dearu/*da no da.
   ‘It is Taro who is a student.’

(17) Taro-ga kagakusya dearu/*da yori Hanako-wa suugakusya da.
   ‘Hanako is more a mathematician than Taro is a scientist.’

(18) Taro-ga gakusei dearu/*da node, gakuhi-ga kakaru.
   ‘(I) have to pay school fees because Taro is a student.’

(iii) In main clauses with sentence-final particles (19), only $da$ is allowed.

(19) a. Kare-wa syusyoo ??dearu/da zo.
    ‘He is the prime minister.’

    b. Kare-wa syusyoo ??dearu/da/∅ yo.
    ‘He is the prime minister.’
As observed from the data, *dearu* can appear in almost all of the environments while the distribution of *da* is restricted. How can we account for the distribution of *da*? Before we make a more detailed classification of the data in section 4, I review previous works and claim that *da* is the morphologically contracted form of *dearu* in the next section.

3. The Morphosyntactic Status of *Dearu, Da* and the Zero Form

3.1. Previous Studies

Nishiyama (1999) examines the copula which attaches to adjectival predicates. He assumes that *da* is the morphologically contracted form of *dearu*. As a piece of evidence he gives the fact that the contraction cannot apply when there is an element between *de* and *aru*:

(20) Yoru-ga sizuka-de-mo-aru/*da-mo (aru).
    night-Nom quiet-de-even-aru/da-even
    ‘The night is even quiet.’  \(\text{(Nishiyama (1999: 186))}\)

According to Nishiyama (1999), *de* is the Pred head in the sense of Bowers (1993) and the dummy copula *ar-* projects VP selected by T. The structure he proposes is the following:

(21)      
    \[\begin{array}{c}
    \text{TP} \\
    \text{NP} \quad \text{T'} \\
    \text{VP} \quad \text{T} \\
    \text{PredP} \quad \text{V} \quad -u \\
    \text{Pred} \quad \text{ar-} \\
    \text{de} \\
    \Rightarrow da
    \end{array}\]
In the framework of Distributed Morphology, Nishiyama (1999) claims that the contraction of dearu to da is due to Fusion that is applied optionally. He claims that Fusion cannot apply when there is an intervening element between de and aru. According to him, this characteristic of Fusion gives explanation for the fact that da cannot appear in (20).

If we adopt Nishiyama’s (1999) account, a prediction would be made that the contraction can always apply when there is no intervening element between de and aru. However, this prediction is not borne out. We have seen in section 2 that there are many environments where da cannot appear even if there is no intervening element between de and aru. For example, in main clauses with modals other than sooda ‘I heard that’ (10), da cannot appear even if de and aru are adjacent. Although I agree with Nishiyama (1999) that da is the morphologically contracted form of dearu, the environments where the contraction can apply are restricted by more than just adjacency. This problem is dealt with in section 4.

Watanabe (in press) modifies Nishiyama’s (1999) structure and uses vP instead of VP. I adopt Watanabe’s (in press) argument and use vP in the structure I give for dearu in section 3.3.

3.2. Da as the Morphologically Contracted Form of Dearu

3.2.1. Dearu as the Basic Form

Dearu has a wider distribution than da, as observed from the data presented in section 2. Furthermore, since the word order does not change and there is basically no difference in meaning between the two forms, there is no evidence that the difference between the two forms is syntactic. Taking the assumption that the derived form cannot appear where the basic form cannot appear, I claim that dearu is the basic form and that da is the contracted form of dearu. Assuming the principles of Distributed Morphology (Halle and Marantz (1993)), I also claim that the difference between the two forms is morphological, following Nishiyama (1999) and Watanabe (in press).

One may alternatively insist that da is the basic form because it is possible to analyze dearu as de (as the adverbial form of da) + aru (ordinary stative verb). However, as I have noted above, da has a narrower distribution than dearu. Under the assumption that the derived form cannot appear where the basic form cannot appear, I claim that dearu is the basic form and that da is the contracted form of dearu.2

The behavior of dearu/da with sentence-final particles goes against the prediction that the distribution of dearu should be wider than that of da, if dearu is the basic form. In most constructions the prediction is correct, so something special must be taking place in sentences with sentence-final particles. I put this construction aside and exclude it in the subsequent sections.

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2 The behavior of dearu/da with sentence-final particles goes against the prediction that the distribution of dearu should be wider than that of da, if dearu is the basic form. In most constructions the prediction is correct, so something special must be taking place in sentences with sentence-final particles. I put this construction aside and exclude it in the subsequent sections.
form cannot appear where the basic form cannot appear, it is unlikely that \textit{da} is the basic form. The crucial fact is provided from the environments where the copula is clearly in its end form (syuusikei). In such environments, the copula is neither used adnominally nor adverbially so \textit{da} should be able to appear if it is the basic form.\footnote{Da cannot appear before nominal elements, as in the examples of subordinate declarative clauses with \textit{koto} (11), \textit{yoo(-ni)} (12), and relative clauses (14). Considering the fact that \textit{da} has an adnominal form \textit{na}, it is unsurprising that \textit{da} cannot appear in these environments. The fact that \textit{da} cannot appear before nominal elements provides no evidence for the claim that \textit{da} is not the basic form.} Significantly, \textit{da} is not allowed in such environments, for example, in sentences with modals such as \textit{beki} ‘should’ (10a). If \textit{da} is the basic form and \textit{dearu} is derived from \textit{da}, this behavior of \textit{da} is unexpected. I thus conclude that \textit{dearu} is the basic form and \textit{da} is derived from \textit{dearu}.

\subsection*{3.2.2. The Historical Facts}

Pieces of evidence supporting the view that \textit{dearu} is the basic form come from historical facts. For one thing, when we compare the earliest examples of \textit{dearu} and \textit{da} in Syoogakukan Nihon Kokugo Daiziten (Syoogakukan Japanese Dictionary), the time when \textit{dearu} first appeared in written form (before the 13\textsuperscript{th} century as in (22a)) is earlier than that of \textit{da} (in 1473 as in (22b)).

\begin{itemize}
\item (22) a. Wagoze-wa imayoo-wa zyoozu-teari-keru yo.\textsuperscript{4}
   you-Top balladry-Top good-is-past Excl
   ‘You were very good at balladry.’
   \hspace{1cm} (Heike Monogatari, Syoogakukan Nihon Kokugo Daiziten)
\item b. Zakketu-no titi azi-ni-mo nara-nu toki da zo.
   mixed.blood-Gen milk taste-to-even become-Neg time is Excl
   ‘The milk of a mixed-blood does not even taste.’
   \hspace{1cm} (Ninden Ganmoku Syoo, Syoogakukan Nihon Kokugo Daiziten)
\end{itemize}

For another, as Narahara (2002) notes, \textit{dearu} historically went through phonetic erosion and contraction in (23) on the way to \textit{da}.

\begin{itemize}
\item (23) \textit{de aru} $\rightarrow$ \textit{de ar} $\rightarrow$ \textit{dea}\textsuperscript{5} $\rightarrow$ \textit{da} \hspace{1cm} (Narahara (2002: 142))
\end{itemize}

\textsuperscript{3} In this example \textit{dearu} is in its adverbial form and the first consonant is voiceless, resulting in the form \textit{teari}.

\textsuperscript{4} The form \textit{dea} appears in classic writings as in (i). It has a meaning of assertion and is used at the end of a sentence.
To summarize, these facts show that *dearu* emerged before *da* and give support to the view that *dearu* is the basic form of the copula.

### 3.3. The Two Contracted Forms: *Da* and the Zero Form

The main concern in this section is the environments where the copula can be absent:

(24) Taro-wa gakusei dearu/da rassii/mitaida.
    Taro-Top student is seem
    ‘Taro seems to be a student.’  
    (Narahara (2002: 175))

Importantly, a sentence without an overt copula has no difference in meaning with a sentence with an overt copula, as observed from the translation for (24). This suggests that both sentences have the same syntactic structure.

I thus propose that the zero form of the copula is another morphologically contracted form of *dearu*, in addition to *da*. The structure of the sentences with *da*, which is based on Nishiyama’s (1999) and Watanabe’s (in press) structures, is presented below.

(25)  

![Diagram showing the structure of the sentence with *da*]

(i) Bonnin-yori-mo dyuuzai-ni husyoozuru koto dea.
    Ordinary.people-than-even heavy.sentence-to given that dea
    ‘(He) would be given a heavier sentence than ordinary people.’
    (Isoho Monogatari, Syoogakukan Nihon Kokugo Daiziten)
I adopt the idea that the contraction of *dearu* to *da* is due to optional Fusion, which Nishiyama (1999) proposes. The item may be deleted after insertion due to a phonological operation. In this case, the copula is covert.

Claiming that the zero form is a morphologically contracted form of the copula has a significant consequence. As we have seen in section 3.1, the generalization previously given is empirically inadequate. Taking into account the zero form of the copula enables us to draw an empirically adequate descriptive generalization about the distribution of the contracted forms of the copula. The descriptive generalization is presented in the next section.

4. The Descriptive Generalization about the Contracted Forms of the Copula

The results of two tests are reviewed: (i) when the predicate is an adjective, whether the adjectival predicate takes the form *-i* or *-kuaru*, and (ii) whether *dearu/da* can be replaced with *na*.

4.1. *-I* and *-Kuaru*

4.1.1. The Data

(i) Contexts where the adjectival predicate takes the form *-kuaru* are: main clauses with modals such as *beki* ‘should’ (26a), *mai* ‘won’t be’ (26b), subordinate clauses with *koto* when the matrix verb is a wishing verb (27), and subordinate clauses with *yoo(-ni)* (28).

(26) a.  Taro-wa  yasasikuaru  bekida.  
Taro-Top  kind  should  
‘Taro should be kind.’  

b.  Taro-wa  yasasiku(-wa-)aru  mai  
Taro-Top  kind  won’t.be  
‘Taro won’t be kind.’  

(27) Taro-ga  yasasikuaru  koto-o  Hanako-wa  nozonda.  
Taro-Nom  kind  C-Acc  Hanako-Top  wished  
‘Hanako wished that Taro were kind.’  

(28) Taro-ni  yasasikuaru  yoo(-ni)  meizita.  
Taro-to  kind  C  ordered  
‘I ordered Taro to be kind.’  

(ii) In all other environments, the adjectival predicate takes the form *-i*.  

(26) a.  Taro-wa  yasasikuaru  bekida.  
Taro-Top  kind  should  
‘Taro should be kind.’  

b.  Taro-wa  yasasiku(-wa-)aru  mai  
Taro-Top  kind  won’t.be  
‘Taro won’t be kind.’  

(27) Taro-ga  yasasikuaru  koto-o  Hanako-wa  nozonda.  
Taro-Nom  kind  C-Acc  Hanako-Top  wished  
‘Hanako wished that Taro were kind.’  

(28) Taro-ni  yasasikuaru  yoo(-ni)  meizita.  
Taro-to  kind  C  ordered  
‘I ordered Taro to be kind.’
4.1.2. -I/-Kuaru as Indicative/Subjunctive

According to Watanabe (in press), the -kuaru form of the adjective appears in subjunctive contexts. His claim is based on his note that the modal meaning of *beki* ‘should,’ which takes the -kuaru form of the adjectival predicate, should be subjunctive. The data presented in section 4.1.1 support his analysis, since two out of three constructions in which the adjectival predicate takes the form -kuaru (excluding *beki* ‘should’) are claimed to be subjunctive on independent grounds (cf. Watanabe (1996) for complement clauses with *koto* and Uchibori (2000) for complement clauses of *yoo(-ni))*.

Hence, in this paper I treat the -i and -kuaru forms of the adjective as indicating the indicative/subjunctive mood of the clause. Although I know of no study analyzing sentences with *mai* ‘won’t be’ as subjunctive, they are alleged to be subjunctive.⁶

4.2. Na

4.2.1. The Data

The set of data presented in section 2 are classified in another way: (i) environments where *dearu/da* can be replaced with *na*, and (ii) environments where the replacement is impossible.

(i) The environments where *dearu/da* can be replaced with *na* are: subordinate clauses with *koto* (29), cleft constructions (30), *no da* constructions (31), comparative clauses (32), and adverbial clauses with *node* ‘because’ (33).⁷

⁶ The modal meaning of *mai* ‘won’t be’ fits well with the claim that sentences with *mai* ‘won’t be’ are subjunctive. The distinction between subjunctive and indicative corresponds to the distinction between deontic modals and epistemic modals. The meaning of deontic modals also fits well with the meaning of subjunctive clauses.

⁷ In this paper I regard sentences with the modal *yooda* ‘seem’ (i) and relative clauses (ii) as environments where the zero form can appear but *da* cannot, although at first sight they seem to be environments where *dearu/da* can be replaced with *na*.

(i) ?? Taro-wa gakusei na *yooda.*
   ‘Taro seems to be a student.’

(ii) ?? Titio-ya ga *isa na gakusei-ga soko-ni iru.*
    father-Nom doctor is student-Nom there-at is
    ‘A student whose father is a doctor is there.’

Compare these with the examples below.

(iii) a. Taro-wa gakusei *no* *yooda.*
    ‘Taro Top student *no* seem’
(29) ??Taro-ga gakusei na koto-o wasureta/nozonda.
Taro-Nom student is C-Acc forgot/wished
‘I forgot/wished that Taro is/were a student.’

(30) Taro-ga gakusei na no-wa kyuuzitu dake da.
Taro-Nom student is C-Top holidays only is
‘It is only on holidays when Taro is a student.’

(31) Taro-ga gakusei na no da.
Taro-Nom student is no is
‘It is Taro who is a student.’

(32) ? Taro-ga kagakusya na yori Hanako-wa suugakusya da.
Taro-Nom scientist is than Hanako-Top mathematician is
‘Hanako is more a mathematician than Taro is a scientist.’

(33) Taro-ga gakusei na node, gakuhi-ga kakaru.
Taro-Nom student is because school.fee-Acc cost
‘(I) have to pay school fees because Taro is a student.’

(ii) In all other environments, the replacement is impossible.

4.2.2. Na as the Adnominal Form

I treat the na form in sentences with nominal predicates as the adnominal form of the copula. In the contexts in which dearu can be replaced with na, a nominal element follows the copula. Koto in (29) and no, in (30), (31), and (33), can all be analyzed as a nominal element. In comparatives, the sentence improves when no is inserted after na, as in (34).

(34) Taro-ga kagakusya na no yori Hanako-wa suugakusya da.
Taro-Nom scientist is no than Hanako-Top mathematician is
‘Hanako is more a mathematician than Taro is a scientist.’

b. Titioya-ga isya no gakusei-ga soko-ni iru.
father-Nom doctor no student-Nom there-at is

In sentences with the modal yooda ‘seem’ (i) and in relative clauses (ii), the sentence is degraded if dearu is replaced with na. This contrasts with replacing dearu with no, which yields a perfect sentence. These sentences are thus analyzed as NP+the zero form copula+no (whatever its status is).

Hiraiwa (2001), who investigates Nominative-Genitive Conversion, notes that the copula must take the na form (although his observation is not restricted to nominal predicates). Nishiyama (1999) mentions that the copula attached on nominal predicates takes the no form in relative clauses but says nothing about the na form of the copula in sentences with nominal predicates.
4.3. The Descriptive Generalization

The data from sections 4.1.1 and 4.2.1 are summarized in Table 1.

(35) Table 1: The distribution of da and the zero form and the result of the two tests

<table>
<thead>
<tr>
<th></th>
<th>da</th>
<th>Ø</th>
<th>-i or -kuaru</th>
<th>da/dearu→na</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main clauses</td>
<td>OK</td>
<td>OK</td>
<td>-i</td>
<td>*</td>
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<tr>
<td>Complement clauses + to</td>
<td>OK</td>
<td>OK</td>
<td>-i</td>
<td>*</td>
</tr>
<tr>
<td>Subordinate interrogative</td>
<td>OK</td>
<td>OK</td>
<td>-i</td>
<td>*</td>
</tr>
<tr>
<td>Conditional clauses + to ‘if’</td>
<td>OK</td>
<td>*</td>
<td>-i</td>
<td>*</td>
</tr>
<tr>
<td>sooda ‘I heard that’</td>
<td>OK</td>
<td>*</td>
<td>-i</td>
<td>*</td>
</tr>
<tr>
<td>Adverbial clauses + kara ‘because’</td>
<td>OK</td>
<td>*</td>
<td>-i</td>
<td>*</td>
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<tr>
<td>rasii ‘seem’</td>
<td>*</td>
<td>OK</td>
<td>-i</td>
<td>*</td>
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<td>*</td>
<td>OK</td>
<td>-i</td>
<td>*</td>
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<tr>
<td>yooda ‘seem’</td>
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<td>OK</td>
<td>-i</td>
<td>*</td>
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<td>Conditional clauses + nara ‘if’</td>
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<td>*</td>
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<tr>
<td>Relative clauses</td>
<td>*</td>
<td>OK</td>
<td>-i</td>
<td>*</td>
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<tr>
<td>beki ‘should’</td>
<td>*</td>
<td>*</td>
<td>-kuaru</td>
<td>*</td>
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<tr>
<td>mai ‘won’t be’</td>
<td>*</td>
<td>*</td>
<td>-kuaru</td>
<td>*</td>
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<tr>
<td>Subordinate clauses + koto (wishing verb in main clause)</td>
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<td>*</td>
<td>-kuaru</td>
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<td>-kuaru</td>
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<tr>
<td>Subordinate clauses + koto (wishing verb in main clause)</td>
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<td>-i</td>
<td>??</td>
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<tr>
<td>Cleft constructions</td>
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<td>-i</td>
<td>OK</td>
</tr>
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<td>No da constructions</td>
<td>*</td>
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<td>OK</td>
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<tr>
<td>Comparatives</td>
<td>*</td>
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<td>-i</td>
<td>?</td>
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<tr>
<td>Adverbial clauses +node ‘because’</td>
<td>*</td>
<td>*</td>
<td>-i</td>
<td>OK</td>
</tr>
</tbody>
</table>

The descriptive generalization drawn from the data is: Dearu cannot be contracted in constructions (i) where adjectival predicates take the form -kuaru, i.e. when it is used in subjunctive clauses, or (ii) where dearu can be replaced with na, i.e. when dearu is used adnominally. We can paraphrase this into the following descriptive generalization:
(36) In the present tense, *dearu* can contract if and only if:
   (i) it is used in indicative clauses, and
   (ii) it is not used adnominally.

5. Proposal: The Morphological Make-up of *Dearu* and *Da*

When we look at the morphological make-up of *da*, notice that although *da* is in the present tense, the present morpheme -(r)u which is attached on verbal stems in the present tense (e.g. *tabe-ru* ‘eat’, *kak-u* ‘write’) is absent. Also, comparing *dearu* and *da* as well as the past forms *deatta* and *datta*, note that from both *dearu* and *deatta*, -e is dropped on the way to *da* and *datta*. This is represented in (37).

\[
\begin{align*}
(de-ar-u) & \Rightarrow d\emptyset-ar-\emptyset \Rightarrow da \\
(de-ar-ta) & \Rightarrow d\emptyset-ar-ta \Rightarrow datta
\end{align*}
\]

*Datta* is analyzed in a way similar to its present counterpart. It is different from *da* only in that the tense morpheme is overt. We may expect that the distribution of *deatta* and *datta* is the same as that of *dearu* and *da*.

However, the distribution of *deatta* and *datta* is simpler than what we may expect. Both of them cannot appear in sentences with modals such as -*beki* ‘should’ and -*mai* ‘won’t be,’ subordinate clauses with *koto* with “wishing verbs” in the main clause, subordinate clauses with *yoo*(-ni), or conditional clauses with *to* ‘if,’ as the examples below show.\(^9\,10\)

\[
\begin{align*}
(38) & \quad *\ Taro-wa\ gakusei\ deatta/datta\ bekida. \\
\quad & \quad Taro-Top\ student\ was\ should \\
(39) & \quad *\ Taro-ga\ gakusei\ deatta/datta\ koto-o\ nozonda. \\
\quad & \quad Taro-Nom\ student\ was\ C-Acc\ wished \\
(40) & \quad *\ Taro-ga\ dorobo\ deatta/datta\ to\ Hanako-ga\ kanasimu/kanasinda\ daroo. \\
\quad & \quad Taro-Nom\ robber\ was\ if\ Hanako-Nom\ feel/felt.sad\ I\ think
\end{align*}
\]

(Intended to mean) ‘If Taro was a robber Hanako will feel/would have felt sad.’

\(^9\) The acceptability of *deatta/datta* does not change according to the tense of the matrix clause in most environments, as can be seen from the examples.

\(^10\) The environments where the past forms are completely excluded are subjunctive (except for conditional clauses with *to* ‘if’). We can account for the fact by claiming that the subjunctive meaning and the conditional meaning are not consistent with the past tense, although the conditional clause with *nara* ‘if’ (42) remains an exception. The ungrammaticality of *deatta* and *datta* in these environments has nothing to do with the nature of the copula.
Both *deatta* and *datta* can appear in all other contexts, although many examples with *deatta* are degraded. Some examples are given below.

(41) Taro-wa gakusei datta/?deatta-sooda.
Taro-Top student was-I.heard.that
‘I heard that Taro was a student.’

(42) Taro-ga dorobo deatta/datta nara, Hanako-wa kanasimu/kanasinda daroo.
Taro-Nom robber was if Hanako-Top be/was.sad I.think
‘If Taro is a robber, Hanako would be sad.’

‘If Taro was/had been a robber, Hanako would have been sad.’

From the distribution, we observe that *datta* appears in all of the environments where *deatta* occurs, unlike its counterpart in the present tense. Since only -e is dropped when *deatta* becomes *datta*, this means that the dropping of -e can occur in any context. The dropping of -e can be analyzed as an optional phonetic phenomenon, in which -e is dropped because of the continuance of vowels, -e and the a of ar-. If this is so, the dropping of -e is a phenomenon triggered by the environment inside a word, not the environment outside. It is not constrained by the type of the sentence or the elements in the sentence. It would then be reasonable that this dropping can happen in all of the contexts above.

Here again historical fact supports my claim. Frellesvig (1995) reports that in Old Japanese ‘hiatus was eliminated by eliding one of the vowels to signal unity of some prosodic domain’ (p. 71) in morpheme boundaries. Frellesvig (1995) also cites Unger’s (1975) claim that when there is a sequence of two vowels, \(V_1-V_2\), \(V_1\) is regularly dropped and argues that the regular case of this kind of vowel elision is \(\ldots CV_1-V_2\ldots \Rightarrow \ldots CV_2\ldots\). For example, *katuwe* ‘bonito’ is derived from *kata-uwo* ‘hard + fish’ by dropping -a. Summing up, in Old Japanese the continuance of two vowels was eliminated by eliding the first vowel. This historical fact gives support to the argument that the dropping of -e in *datta* is a phonetic phenomenon, triggered by the continuance of vowels.

Turning back to sentences with the present forms *dearu* and *da*, the dropping of -e occurs in all contexts, as it does with the past forms, since it is a phonetic phenomenon.\(^\text{11}\) I propose

\(^{11}\) If this claim is on the right track, a prediction would be made that the form *daru* should be possible by dropping only -e from *dearu*. Here the process of derivation would be the same as *deatta* into *datta*. However, the form *daru* does not exist in Modern Japanese, as far as I know. I have no explanation for
that the narrow distribution of \textit{da} is due to the other dropped item, the tense morpheme, although I cannot give a satisfactory account to why the dropping of the tense morpheme causes the narrow distribution of \textit{da}. I leave the problem for future research.

\textbf{References}


\textbf{<Dictionary>}


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the impossibility of applying only the dropping of -\textit{e} to \textit{dearu}. For some reason, in the present tense, the dropping of -\textit{e} can apply only when the dropping of the tense morpheme applies concomitantly.