

## Non-phonological Factors that Determine Exceptions in an Analogical Change of Accent

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### 1. INTRODUCTION

1.1. Where a group of words belonging to a certain grammatical class have undergone an analogical change of paradigm, it is sometimes observed that a small set of words preserves the old paradigm with exceptional persistence even after most of the words have gone through the change.

This paper focuses on an analogical change of accent in Japanese verbs and discusses the question of what properties characterize the words which resist the change most strongly, thus preserving the old accent pattern until the final stage of the overall shift of accent patterns. We take as an example the change of accent pattern of 3-mora verbs which is in progress in the dialects of the Ise district (伊勢地方), Mie prefecture (三重県).

Since purely phonological conditions such as the height of a vowel seem not to be correlated with the 'delay' of accentual change which is observed in the particular set of verbs, we will concentrate on examining non-phonological factors like the frequency of occurrence of a form and the semantic properties of words.

1.2. The accent of the dialects of the Ise district is a subtype of Chuuooshiki (中央式, Central-type) accent.<sup>1)</sup>

From the viewpoint of the historical study of accent, most of the 3-mora, *godan* verbs (五段動詞, or verbs whose stem ends with a consonant) in the Ise dialects can be classified into group I (1類) and group II (2類). These two groups of verbs originally had the following accent patterns for the two inflected forms which we deal with in this paper, namely non-perfect indicative and negative forms (henceforth NP-Ind<sup>2)</sup> and Neg forms, respectively), taking *ataru* (当てる) and *amaru* (余る) as respective examples of group I and group II (cf. Hattori (1931)). In some parts of the Ise district (e.g. Iitaka (飯高)), there are speakers who, for the most part, still retain these accent patterns (cf. Hattori (1990)).

	group I	group II
NP-Ind	「ataru	「a」maru
Neg	「ataraN	「ama」raN

Then, in most areas of the Ise district, there occurred an analogical accent change to the effect that the accent patterns of the two inflected forms of group-II verbs are leveled to those of group I, i.e. 「a」maru > 「amaru and 「ama」ra'N > 「amara'N.

These accent changes took place in many other Chuuooshiki dialects as well. Strictly speaking, the accent change of these two inflected forms did not pro-

ceed at the same pace, so we shall hereafter treat them as two separate processes where it is necessary.

There exists considerable variation inside Ise regarding the degree to which the accent change has already proceeded, depending on the place and the age of the speaker.

## 2. ANALOGICAL CHANGE OF ACCENT

### 2.1. Four stages of analogical accent change

As a model of the process of an analogical change, the speakers' linguistic situation as to the accent pattern of the particular form of the words in question (e.g. NP-Ind form of group-II verbs in our case) may be classified into four stages. This can be schematized as in table 1. Here,  $\alpha$  represents the old accent pattern and  $\beta$  represents the new accent pattern.  $\alpha/\beta$  means that the item is pronounced with accent pattern  $\alpha$  or accent pattern  $\beta$ , conditionally or not conditionally.

Table 1

Item No.	Stage A	Stage B	Stage C	Stage D
1	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
2	$\alpha$	$\alpha/\beta$	$\alpha/\beta$	$\beta$
3	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
4	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
5	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
6	$\alpha$	$\alpha/\beta$	$\alpha/\beta$	$\beta$
7	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
8	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
9	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$
10	$\alpha$	$\alpha/\beta$	$\beta$	$\beta$

Speakers at Stage A are not yet affected by the accent change.

For speakers at Stage B, each of the items may be pronounced with the accent pattern  $\alpha$  or  $\beta$ , freely or depending on context. In other words, the accent is 'fluctuating', though the degree of fluctuation and the preferred accent pattern (if one exists) might be different from one word to another.

In Stage C, most of the items are invariably pronounced with the new accent pattern, but at the same time there are some exceptional items which still retain the old accent pattern, at least as one of its accentual variants.

In the case of the speakers at Stage D, all the items uniquely have the new accent pattern  $\alpha$ , that is, the accent change is already completed. According to Nakai (1987, 88), speakers of the young generation in Kyoto-city are at Stage D. As a matter of course, the four stages illustrated above are actually not so clear-cut from each other.

From a theoretical point of view, Stage C arouses particular interest in that it presents the question of why certain items retain the original accent pattern  $\alpha$  while others have lost it (provided this is not clearly phonologically conditioned.)

## 2.2. Nonphonological factors characterizing the exceptions

We do not know a priori whether it is predictable at all which item preserves the accent pattern *a* until as late as Stage C. However, we might legitimately suspect the following types of factors as being relevant for determining the exceptions: (i) the syntactic/semantic property(-ies) of the word, (ii) the frequency of occurrence of the form, (iii) restriction, if any, as to the register in which the form can be used.

Type (ii) factors may be further divided into: (iia) factors concerning the absolute frequency of the form (e.g. *amaru*), (iib) factors concerning frequency of the form (e.g. *amaru*) relative to the total number of occurrences of the word (e.g. the sum of the occurrences of *amaru*, *amaraN*, *amaQta*, *amaQte*, etc.) Actually, factors of type (ii) may be partly dependent on factors of type (i).

Kindaichi (1985, p91) suggests that some syntactic or semantic features of a class of nouns is the key factor in preserving their old accent pattern in the course of the change form /○○] to /○○/ which is taking place on 2-mora nouns in Enshuu (遠州) and other dialects.

Bynon (1983: 42-43), among others, gives examples of exceptions to an analogical (though not accentual) change which are presumably conditioned by factors of type (ii) and (iii) above.

3. ACCENT CHANGE OF 3-MORA, *godan* GROUP-II VERBS IN THE ISE DISTRICT

## 3.1. The data

With regard to the accent change of NP-Ind and Neg forms of 3-mora *godan*, group-II verbs, there exist speakers at Stages A, B, and C in the Ise district, though their exact distribution is not yet clear (however, see Hattori (1990) for a partial description).

Speakers at Stage C regarding these two kinds of accent change are found in the Northern and Central Ise district (北勢, 中勢地方), in particular. We will deal with the data obtained from 13 informants born and living in those areas.<sup>3)</sup>

3.1.1. First, let us observe the accent patterns of the NP-Ind form of the group-II verbs in these speakers. Listed below (Table 2<sup>4)</sup>) are words whose NP-Ind form can be pronounced with the old accent pattern H1 by at least one of the speakers. (There are no speakers who retain the old accent pattern for the Neg form but not for the NP-Ind form of any word).

Three forms which are rarely used in everyday speech are omitted from the list, namely *yakusu* (訳す), *moosu* (申す), *zjukusu* (熟す), even though some speakers pronounce these words with accent pattern H1.

Although the vocabulary included in the questionnaire is not exhaustive, it is unlikely that there exists a word in everyday use other than those listed in Table 1 for which the old accent pattern H1 is retained by any one of the speakers. In the case of speaker M (the author of the present paper), apart from the words listed in Table 2, there does not seem to be any word whose NP-Ind form has the old accent pattern H1.

Hattori's (1931:16) description seems to imply that in Kameyama in the early 1930's, the accent change of NP-Ind form of 3-mora *godan* verbs was already at

Table 2

Speaker Place <sup>5)</sup> Year of birth	A KW '27	B YK '27	C YK '27	D SZ '26	E SZ '25	F KM '22	G KM '13	H KM '12	I T '15	J T '24	K HS '26	L HS '25	M HS '57
omo'u (omoo) 思う think	1	1	1	1	1	1	1	1	1	1	1	1	1
(-ni) kagiru 限る be limited to	1	1	1	1	1	1	1	1	1	1	1	1	1
komaru 困る be in difficulty	1	1	1	1	1	1	1	1	1	1	1	1	1
wakaru 分かる understand	1	1	1	1	1	1	1	1	1	0/1	1	1	1
kakaru(a) かかる be required (money, time, etc.)	1	1	1	1	1	1	1	1	1	0	1	1/0	1
kakaru(b) かかる be splattered with SUBJ (water, etc.)	0	0	0	0	0	1	1	1	1	0	0	1/0	0
tanomu 頼む request	1	0/1	0	1	1/0	1	1	0	0/1	0	1	1	1
nokoru 残る remain	1	0	0	1	1	0	1	0	1/0	0	0	0	0
okorur 怒る get angry	1	1	0	0	0	0	1	0	0	1	0	0	0
okoru 2 起こる happen	1	1	0	0	1	0	0	0	0	0	0	0	0
amaru 余る be in excess	1	0	0	0	0	0	1	0	0	0	0	0	0
gozaru ござる be, go, come	1	-	-	1	1	-	1	1	-	-	-	-	-

our Stage C, though he did not mention exactly what verbs other than amaru still had the old accent pattern. This is in accord with the accent patterns of speakers G and H, both of Kameyama, born in 1913 and 1912, respectively.

It can be observed from the table that the old accent patterns of the following 6 forms show particular stability: omo'u, kagiru, komaru, wakaru, kakaru(a), tanomu, that is, the accent pattern H1 for these forms is geographically widespread and chronologically enduring (compare the young and the old speakers in Hisai (Speakers K,L,M)).

These exceptions are apparently not phonologically conditioned.

3.1.2. Now let us turn to the Neg form of the group-II verbs. Here, wakaraN (<wakaru 分かる) is virtually the only form whose accent pattern is H2 for most of the speakers. (We are excluding from our discussion frozen expressions such as kanawaN, cumaraN, which are pronounced with the accent pattern H2 by most of the speakers.)

### 3.2. Analysis

Now, let us examine what factors are characteristic of the exceptional words discussed in the preceding section.

I have previously presented a hypothesis which attempts to explain all the exceptions in terms of a semantic feature of the verbs, namely stativity.

Here, I would like to reexamine the question from other points of view, par-

ticularly with reference to statistical data.

In the lack of a corpus of significant size collected in the dialects of Ise, we adopt as the source of statistical data a written record of *rakugo* (落語) orally played in Oosaka dialect, which shares many important features with the dialects we are dealing with here.

First let us observe the occurrences of 3-mora *godan* verbs in this corpus.

The following are the top eight verbs ordered by the number of occurrences of their NP-Ind forms (in total, 1657 occurrences of NP-Ind forms of 183 different 3-mora *godan* verbs are counted.)

- ① *ciga'u* 違う 250 ② *omo'u* 思う 173 ③ *komaru* 困る 106  
 ④ *wakaru* 分かる 100 ⑤ *tanomu* 頼む 84 ⑥ *ka'eru* 帰る 69  
 ⑦ *kakaru* (a,b) かかる 42 ⑧ *mora'u* 貰う 33

Of these eight verbs, all but *ciga'u* and *mora'u* are group II verbs. Remarkably, five out of the six group II verbs in the list above are among the six exceptional verbs we pointed out at the end of 3.1.2 as most stably preserving the old accent pattern for the NP-Ind form, suggesting that the type (ii) factor cited in 2.2 is relevant here, though fuller statistical analysis is needed to prove the correlation. (Incidentally, it is worth noting that the verbs ① to ④ are all typical stative verbs.)

I believe that if *ciga'u* (actually a group I verb) were a group II verb, it would have retained its old accent pattern until Stage C.

On the other hand, in the case of (-ni) *kagiru*, another verb with exceptional stability for the accent pattern of the NP-Ind form (as we have seen in Table 2), the absolute frequency of occurrence of its NP-Ind forms is not particularly high. However, here a type (iib) factor may be playing a role, namely the frequency of the NP-Ind form relative to the total number of occurrences of this verb (ignoring the inflected forms). Use of this verb, especially in the sense in "zisjo wa koreni *kagiru*" (辞書はこれに限る, This is the best dictionary.) is almost limited to the NP-Ind form (Mikami: 35). And, according to Kindaichi (1955), *kagiru* in this particular meaning was the only exception to the H1>HO shift which was almost completed in some speakers of Kyoto. (Note that (-ni) *kagiru* is also a typical stative verb).

Lastly, the third factor mentioned in 3.1.2. may be relevant in the case of the verb *gozaru*. *Gozaru* is the former honorific form for *iru* (be), *iku* (go), *kuru* (come) but is now essentially obsolete in many dialects including the dialect of Kyoto-city. In the dialects of the Ise district as well, this word is not used by younger speakers and, even for those who do use it, this word sounds vernacular (or archaic), and, use of this word is restricted as to register.

Now let us turn to the Neg forms. Here, *wakaraN* is by far the most often used Neg form in 3-mora verbs, sharing 52% (250 occurrences) out of the total of 476 occurrences of Neg forms of all the 3-mora verbs. This seems to correspond to the fact that *wakaraN* is the only Neg form for which the accent pattern H1 is retained by most of the speakers.<sup>6)</sup>

#### 4. SUMMARY

In this paper, I have argued for the possibility of non-phonological factors

(including frequency of occurrence, semantic features, and restriction as to register) in determining the exceptions to an analogical accent change of verbs in the Ise district. I hope that future research on similar analogical processes which are taking place in other Japanese dialects will support (or disprove) my speculations presented here.

## REFERENCES

- Bynon, Theodora (1983) "Historical linguistics," Cambridge University Press.  
 Hattori, Tadasu (1990) "Dooshi no akusento henka ni okeru imi tokusei no kan'yo in tsuite" (The role of semantic features in an accentual change of verbs - the case of dialects of northern Mie), Studies in the Japanese Language No. 162.  
 Hattori, Shiroo (1931) "Kokugo sho-hoogen no akusento gaikan," Hoogen 1-4.  
 Kindaichi, Haruhiko (1985) "Shoka no akusento no kenkyuu o yonde" (The study of accents—comments on recent papers), Studies in the Japanese Language No. 141.  
 Kindaichi, Haruhiko (1955) 'Kinki chuuuobu no akusento oboegaki,' in "Toojo Misao sensei kan-reki shukuga ronbunshuu."  
 Mikami, Akira (1963) "Nihongo no koobun," Kuroshio-shuppan.  
 Nakai, Yukihiko (1987,88) "Kyooto kyuushinai ni okeru jakunensoo no akusento" (Accent of the young generation in Kyoto city), Kokugo Kenkyuu 50, 51.  
 Nomoto, Kikuo et al. (1991) 'Kan' yaku nihongo no soosei,' "Nihongo-gaku" Vol. 10, No. 4.

## NOTES

1) The following table will illustrate the approximate pitch patterns (in an isolated utterance) of each accent patterns. These accent patterns are referred to by the signs in the parentheses. L and H stand for teikishiki (低起式, low-initial type) and kookishiki (高起式, high-initial type) respectively, and the number which follows stands for the position of the accent kernel. [ and ] represents a rise and a fall of pitch, respectively.

"○" indicates a mora and "—" indicates an arbitrary number (possibly zero) of morae. There are  $2n+1$  accent patterns for  $n$ -mora words, although in 2-mora or longer words the kookishiki accent patterns with the kernel on the final mora (i.e. 2-mora H2, 3-mora H3, etc.) are either lacking or extremely rare.

Γ○—	(H0)	—Γ○	(L0)
Γ○]—	(H1)		
Γ○○]—	(H2)	○Γ○]—	(L2)
Γ○○○]—	(H3)	○○Γ○]—	(L3)
Γ○○○○]—	(H4)	○○○Γ○]—	(L4)
etc.		etc.	

2) Here, we do not make a distinction between what is traditionally called shuushi-kei (終止形) and rentai-kei (連体形).

3) Informants (referred to alphabetically) are the same as cited in Hattori (1990). The questionnaire consists of 249 3-mora *godan* verbs which are supposed to be in group II. Throughout this paper, only use of these verbs as main verbs is taken into consideration.

4) In the table, "H" for kookishiki is omitted. "—" means nonuse of the form.

5) KW: Kuwana (桑名), YK: Yokkaichi (四日市), SZ: Suzuka (鈴鹿), KM: Kameyama (亀山), T: Tsu (津), HS: Hisai (久居).

6) Nomoto et al. (1991) argues that in standard Japanese, the verb *wakaru* is peculiar in that its use is largely biased toward Neg forms.