On the Accented Moraic Oral Obstruent in the Owase Dialect (Mie Prefecture)^{*}

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In this paper, I argue that a moraic oral obstruent on which an accent falls is found in the Owase dialect. There are four kinds of special morae in Japanese phonology: the second morae of diphthongs (/J/), the second morae of long vowels (/R/), moraic nasals (/N/), and moraic oral obstruents (/Q/). /Q/ has the weakest phonological independence among the four special morae and generally does not receive an accent. However, interestingly, an accented /Q/ is observed in the Owase dialect, where pre-accenting morphemes in compound nouns are found. When the pre-accenting morpheme begins with /k/ and the morpheme that precedes the pre-accenting morpheme ends with /ku/, the accented /Q/ appears.

Keywords: Japanese accent, moraic obstruent (Sokuon)

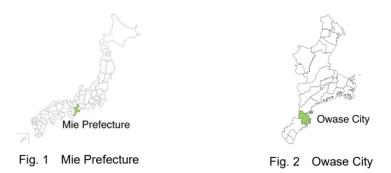
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1. Introduction

In this paper, I argue that a moraic oral obstruent (促音, *sokuon*), on which the accent falls, is found in the Owase dialect. Owase City is located in the southern region of Mie Prefecture, Japan. Mie Prefecture is a part of Tokai Region, near Nagoya City. Since the percentage of people aged 65 years and older in the total population of Owase City is 42.8% (as of November, 2018), the Owase dialect is in danger of extinction.

HIRATA, Shu. 2019. "On the Accented Moraic Oral Obstruent in the Owase Dialect (Mie Prefecture)". *Proceedings of International Symposium "Approaches to Endangered Languages in Japan and Northeast Asia (Poster Session)*". pp.1–7. [Permanent URL: https://doi.org/10.15026/94150]

^{*} This work was supported by Grant-in-Aid for JSPS Research Fellow 14J09547 and JSPS KAKENHI Grant Numbers JP16H06784, JP18K12362.



There are four kinds of special morae in Japanese phonology: the second morae of diphthongs (/J/), the second morae of long vowels (/R/), moraic nasals (/N/), and moraic oral obstruents (/Q/) (Kawakami 1977: 74–95, Uwano 2003: 69, Kubozono 2015: 11–12). Special morae only appear as the second mora of a heavy syllable and never form an independent syllable alone. In Standard Japanese, the special morae are phonologically weak and do not receive the accent (Uwano 2003: 69, Kawahara 2015: 453–454). Uwano (2003: 78) indicates that /J/, /R/, and /N/ receive the accent in some Japanese dialects other than Standard Japanese; however, /Q/ has the weakest phonological independence among the four special morae and generally does not receive the accent. /Q/ is basically realized as a voiceless obstruent (Ito and Mester 1995: 819, Saito 2003: 14, Kawahara 2015: 53), and it rarely bears the accent.

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/J/	the second morae of diphthongs	Saitama	/sa.J.ta.ma/	さいたま
/R/	the second morae of long vowels	Tokyo	/to.R.kjo.R/	とうきょう
/N/	moraic nasals	Gumma	/gu.N.ma/	ぐんま
/Q/	moraic oral obstruents	Tottori	/to.Q.to.ri/	とっとり

(1) Four kinds of special morae in Japanese phonology

However, interestingly, the accented /Q/ is observed in the Owase dialect, where preaccenting morphemes in compound nouns are found. Before describing the accented /Q/ in detail, I examine this dialect's accent system in the next section.

Accent system of the Owase dialect

The Owase dialect has a quite complicated accent system. It has a three-register accent system with one lexical accent per word (Hirata 2013). "Register" or " \Re (*shiki*)" is the term used in Japanese accentology and it determines the pitch movement of a whole word or a "syntagma" (Uwano 1989: 195), which refers to a noun or a noun

followed by one or more particles (Kawakami 1961: 175). The three registers in the Owase dialect are Registers α , β , and γ , with the following features.

(2) Three registers in the Owase dialect:

Register α : A high pitch lasts for only one mora.

Register β : A high pitch lasts for two adjacent morae.

Register γ: When an unaccented word or syntagma is pronounced independently, a high pitch lasts from the beginning of the word to its end. On the other hand, when a word in Register γ is accented, a high pitch lasts from the beginning of the word to the accented mora.

In addition to the three registers, the Owase dialect has one lexical accent per word. The pitch fall occurs after the mora that bears the accent. There is an unaccented pattern in the Owase dialect, and the pitch fall does not occur in the unaccented words. This lexical accent is called "下げ核 (*sagekaku*)," or the lowering kernel in Japanese accentology (Uwano 2012: 1416).

Examples of the four-mora words (including two-mora and three-mora words) in the Owase dialect are displayed in (3). All the words are given with the topic marker *-wa*. "[" stands for pitch rise before a mora and "]" for pitch fall after a mora. The morae with high pitch are written in bold font.

	Examples	Gloss	Register	The mora that bears the accent
a.	to.mo.da.ci.[wa	'friend'	α	Unaccented
b.	[ka].pu.se.ru.wa	'capsule'	α	1st mora
c.	e.[ha].ga.ki.wa	'picture postcard'	α	2nd mora
d.	ka.mi.[so].ri.wa	'razor'	α	3rd mora
e.	[me.ji].ru.si.wa	'mark'	β	2nd mora
f.	i.[ci.ji].ku.wa	'fig'	β	3rd mora
g.	[a.me.wa	'rain'	γ	Unaccented
h.	[mo.me].N.wa	'cotton'	γ	2nd mora
i.	[mu.ra.sa].ki.wa	'purple'	γ	3rd mora

(3) Examples of four-mora words (including two-mora and three-mora words) in the Owase dialect

Examples (3a-d) are in Register α . (3b-d) are accented, and the high pitch occurs only on the mora that bears the accent. (3a) follows the unaccented pattern, and the high

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pitch occurs on the last mora of the syntagma. (3e-f) are in Register β . In the examples in Register β , the high pitch occurs on two adjacent morae, namely the accented mora and the mora preceding it. In the examples in Register γ , the high pitch lasts from the beginning of the syntagmata (3g-i).

Next, we will examine (3b) and (3e). Both (3b) and (3e) have high pitch on the beginning of the syntagma. In this way, (3b) and (3e) can be assumed to be in Register γ . However, when the adnominal adjective *kono*- 'this' precedes Registers α , β , and γ , a difference occurs.

(4) <i>kono-</i> 'this' -	+ Register α, β,	and γ	
[ka].pu.se.ru	(Register α)	\rightarrow	ko.no.[ka].pu.se.ru
[me .ji].ru.si	(Register β)	\rightarrow	ko.no.[me.ji].ru.si
[a.me	(Register y)	\rightarrow	ko.[no].a.me
[mo.me].N	(Register y)	\rightarrow	ko.[no.mo.me].N ~
			ko.[no].mo.me].N (pitch fall occurs twice)
[mu.ra.sa].ki	(Register y)	\rightarrow	ko.[no.mu.ra.sa].ki ~
			ko.[no].mu.ra.sa].ki (pitch fall occurs twice)

When *kono*- precedes the words or syntagmata in Register γ , the pitch rises between *ko* and *no*. In contrast, *kono*- precedes the words or syntagmata in Registers α and β , but the pitch rise does not occur between *ko* and *no*. In this way, we can specify the register of the words or syntagmata with a high beginning.

3. Pre-accenting morphemes

There are pre-accenting morphemes in the accent of the Owase dialect. If the second member of a compound noun is a pre-accenting morpheme, the accent falls on the preceding mora of the pre-accenting morpheme, and the compound noun is in the Register α . The accent of the first member of a compound noun is irrelevant to that of the entire compound noun. Examples of pre-accenting morphemes are displayed in (5).

(5) Examples of pre-accenting morphemes in compound nouns						
-shi 'city':	[o.wa.se 'Owase' + shi	\rightarrow	o.wa.[se].shi 'Owase City'			
-ki 'machine':	shi.ba.[ka].ri 'mowing the lawn'	\rightarrow	shi.ba.ka.[ri].ki 'lawn mower'			
	+ ki					
-e.ki 'station':	[o.wa.se 'Owase' + e.ki	\rightarrow	o.wa.[se].e.ki 'Owase Station'			
-ka.J 'meeting',	ko.do.[mo 'children' + ka.J	\rightarrow	ko.do.[mo].ka.J 'party for			
'party':			children'			

(5) Examples of pre-accenting morphemes in compound nouns

In o.wa.[**se**].shi and shi.ba.ka.[**ri**].ki, the accent falls on the preceding mora of the pre-accenting morpheme '-shi' and '-ki'. In o.wa.[**se**].e.ki and ko.do.[**mo**].ka.J, once again, the accent falls on the preceding mora of the pre-accenting morpheme '-e.ki' and '-ka.J'.

4. The accented moraic oral obstruent

As mentioned above, interestingly, an accented /Q/ is observed in the Owase dialect. To date, the accented /Q/ has been found when the pre-accenting morpheme begins with /k/ and the morpheme that precedes the pre-accenting morpheme ends with /ku/.

(6) Examples of the accented moraic oral obstruent $(/Q/)$					
se.N.ta.[ku 'washing' + ki	\rightarrow	se.N.ta.[Q].ki	'washing machine'		
[o].N.ga.ku 'music' + ka.J	\rightarrow	o.N.ga.[Q].ka.J	'concert'		

In se.N.ta.[**Q**].ki, the last /u/ in se.N.ta.[**ku** is truncated and /Q/ is pronounced as [k]. Likewise, the same truncation occurs in o.N.ga.[**Q**].ka.J. However, this truncation is not obligatory, as in (7).

(7) Examples of the pattern where the truncation does not occur					
re.R.kja.[ku 'cooling' + ki	\rightarrow	re.R.kja.[ku].ki	'refrigerating machine'		
shi.N.bo.[ku 'friendship' + ka.J	\rightarrow	shi.N.bo.[ku].ka.J	'Socializing party'		

In the pitch patterns, the accent is realized as an acute pitch fall in the mora following the accented mora. In the pitch pattern of ka.mi.[**so**].ri.o 'razor (accusative form)', where the accent falls on /so/, an acute pitch fall occurs on /ri/, the mora following /so/ (Fig. 3). In Fig. 4 and Fig. 5, an acute pitch fall occurs on /ki/ and /ka/; therefore, we can determine that the accent falls on /Q/.

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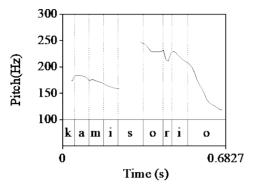


Fig. 3 Pitch pattern of ka.mi.[so].ri.o

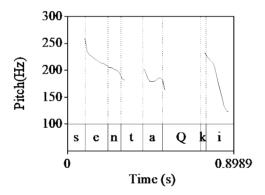


Fig. 4 Pitch pattern of se.N.ta.[Q].ki

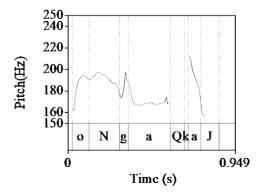


Fig. 5 Pitch pattern of o.N.ga.[Q].ka.J

5. Conclusion

In this paper, I have argued that the moraic oral obstruent (/Q/), on which the accent falls, is interestingly found in the Owase dialect. So far, the accented /Q/ has only been found in compound nouns. When the pre-accenting morpheme of the compound noun begins with /k/, and the morpheme that precedes the pre-accenting morpheme ends with /ku/, the accented /Q/ appears. The question remains as to whether the accented /Q/ occurs in other circumstances. I expect that future research will find more instances of the accented /Q/.

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