

Towards a typology of compound and loanword prosody in tonal dialects of Kyushu Japanese

BACKGROUND: There is a large variety of prosodic systems found in the dialects of Kyushu, an island in the south western part of Japan. Fukuoka dialect (a variety of the Standard Tokyo Japanese type), which is a typical accentual (non-tonal or multi-pattern) dialect, has prosodic contrast depending on word length. That is, there are n contrastive tonal patterns for n syllable words. Also widely observed in Kyushu are dialects which have two contrastive tonal types regardless of word length (Hirayama 1951). These dialects are distributed in the southern (Kagoshima and Kumamoto prefecture) and western (Saga and Nagasaki prefecture) parts of the island. In other words, these dialects are tonal dialects in a narrow sense. Figure 1 shows the geographical distribution of prosodic system in Kyushu (based on Hirayama 1951).

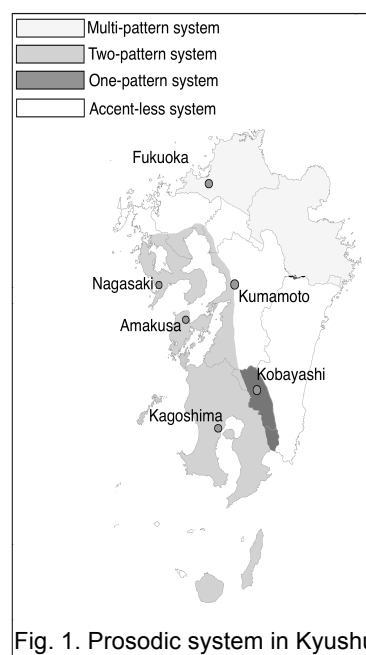


Fig. 1. Prosodic system in Kyushu

The tonal dialects of Kyushu have two well known characteristics. One characteristic feature is a pitch shape. All tonal dialects in Kyushu contrast falling pitch with non-falling pitch. No dialect which contrasts in terms of the position of pitch fall is reported. Another characteristic feature is directionality. Tonal dialects in Kyushu are divided into two directional types, that is, whether the position of falling pitch is computed from left-to-right or right-to-left. Previous studies have shown that the position of falling pitch is computed from left-to-right in western dialects such as Saga and Nagasaki. For example, words with falling tone are high-pitched on the second mora in the Nagasaki dialect. In contrast, the position of falling pitch in southern dialects such as Kagoshima and Kumamoto dialects are computed from right-to-left. For example, words with falling tone are high-pitched on the penultimate syllable in the Kagoshima dialect. The difference between these two dialects can be exemplified as below. *Kuruma* ‘car’ is a word with falling tone in both dialects. The pitch forms in isolation are similar to each other. When particles are attached, however, the pitch forms in the two dialects are differentiated. While the position of pitch fall is moved rightward in the Kagoshima dialect, there is no pitch movement in the Nagasaki dialect, as is shown in (1).

(1) Kagoshima (Right-to-Left): ku.RU.ma, ku.ru.MA-mo (also), ku.ru.ma-KA.ra (from)

Nagasaki (Left-to-Right): ku.RU.ma, ku.RU.ma-mo, ku.RU.ma-ka.ra

In Amakusa, there are two varieties with respect to directionality. The position of falling pitch is computed from left-to-right in northern and central dialects such as the Hondo dialect. In contrast, the position of falling pitch is computed from right-to-left in southern dialects such as Ushibuka, Asami, and Fukami dialects, which are the same as the Kagoshima dialect. In the tonal dialects of Kyushu, is there any prosodic feature other than directionality which can distinguish southern from western dialects? In the present study, we will focus on the tonal distribution of compounds and loanwords, and I will point out that the southern vs. western contrast is found in loanwords.

DATA: Data from both previous studies and original data on loanwords and compounds was used. The former was taken from Hirayama (1951) and Kibe and Hashimoto (2003) on the Kagoshima dialect, Kibe (2012) on the Nakatanae dialect (a variety of Tanegashima-Kagoshima Japanese), the Yakushima-Miyanoura dialect, Arakawa (2015) on the Nishinoomote dialect (another variety of Tanegashima-Kagoshima Japanese), and Matsuura (2008) on the Nagasaki dialect. Our original data is as below: the Kitagata dialect (Saga), the Hondo dialect (Northern Amakusa), the Fukami dialect, the Asami dialect, the Ushibuka dialect (Southern Amakusa), the Tamana dialect (North western Kumamoto). All original data was collected between 2010 and 2016.

Results of Loanwords: Previous studies on loanword tone in tonal dialects in Kyushu reported that the predominant tonal type in loanwords differs depending on the directionality of the dialect. Loanwords are produced with falling tone if falling pitch in the dialect is computed from right-to-left. This system is found in Kagoshima, Nakatane, and Ushibuka dialects. In contrast, the predominant of tone in loanwords in dialects where the position of falling pitch is computed from left-to-right differs depending on word length. Short loanwords, which contain four moras or less, tend to take a falling

tone. In contrast, long loanwords, which have six moras or more, tend to take non-falling tone. The tonal type of five-mora loanwords is half-and-half. Matsuura (2008), moreover, demonstrated that the tonal pattern of a loanword can be predicted from the position of accent in Standard Tokyo Japanese. He generalized the tone-accent correspondence as in (2). This system is found in Tamana, Hondo, Kitagata, and Nagasaki dialects. The difference between these two systems is exemplified in (3).

- (2) a. If a loanword is accented on either of the first two moras in Standard Tokyo Japanese, it takes a fall-type tone in the dialect.
 b. If a loanword is accented after the second mora or is unaccented in Standard Tokyo Japanese, it takes non-fall-type tone in the dialect.
- (3) Kagoshima: te.ku.NIK.ku, pu.re.ZEN.to, oru.GOO.ru, a.me.RI.ka
 Nagasaki: te.KU.nik.ku, pu.RE.zen.to, o.ru.goo.ru, a.me.ri.ka

While accent-tone correspondence was found both in Kitagata and Tamana dialects, the number of falling tones was fewer than that in the Nagasaki dialect. There is no data on loanword tone in the other three dialects, i.e., Nakatane, Miyanoura, and Nishinoomote dialect.

Results of Compounds: Kibe (2012) and Matsuura (2008) report compound tone in tonal dialects in Kyushu. The compound tone in the Kagoshima dialect is determined by the compound's first member. A compound is produced with a falling tone if the first member has a falling tone. In contrast, a compound is produced with a non-falling tone if the first member has a non-falling tone. Compound tone in the Nagasaki dialect is determined not only by the tonal type but also the length of the first member of a compound (Matsuura 2008). If the first member contains three or more moras, the compound tone is a non-fall tone regardless of the tonal type of the first member. In other words, the compound tone in the Nagasaki dialect is neutralized where the first member is long. This is exemplified in (4).

- (4) Kagoshima: U.me→u.me.do.RO.boo, ME.ron→me.ron.do.RO.boo
 Nagasaki: U.me→u.ME.do.ro.boo, me.ROn →me.ron.do.ro.boo

Similarly to loanwords, compound tone in dialects in Amakusa can be divided into two types. While the compound tone is neutralized when the first member is long in the Hondo dialect, there is no neutralization in southern dialects such as Ushibuka, Asami, and Fukami dialects. Also, we found that in the Tamana dialect, the compound tone is neutralized even when the first member is short. These results mean that compound tone is not contrastive in the dialect. There were no previous reports of dialects which have perfect neutralization like the Tamana dialect in Kyushu.

Discussion: The distribution of loanword tone corresponds to fall-pitch directionality (right-to-left vs. left-to-right). If falling pitch is computed from right-to-left (e.g., Kagoshima dialect), loanwords are falling tone. However, the predominant tonal type of loanwords in dialects where the position of falling pitch is computed from left-to-right (e.g., Nagasaki dialect) depends on the length of the word and its accentual pattern in Standard Tokyo Japanese.

We cannot predict whether tonal types are neutralized or not in compounds from directionality. It is established that tonal contrast is not neutralized in dialects with right-to-left directionality. In contrast, it cannot be predicted whether or not dialects with left-to-right directionality show tonal neutralization. Although the position of falling pitch is computed from left-to-right in Nishinoomote and Miyanoura dialects, compound tone is not neutralized. The Tamana dialect, meanwhile, shows neutralization regardless of word length. This is an exceptional case in dialects with left-to-right directionality. These results are summarized in (5). It is clear that parameters other than directionality affect tonal neutralization in compounds.

(5) Provisional typology of loanword and compound tone

	KAGO	NAKA	USHIB	TAMA	MIYA	NISHI	HOND	KITAG	NAGA
directionality	Right-to-Left			Left-to-Right					
tone-accent correspondence	No	?	No	Yes	?	?	Yes	Yes	Yes
neutralization	No	No	No	Yes	No	No	Yes	Yes	Yes

SELECTED REFERENCES

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