

# THE RHYTHM OF *TANKA*, SHORT JAPANESE POEMS: READ IN PROSE STYLE AND CONTEST STYLE

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## ABSTRACT

In *Tanka* read as prose, the duration of each line including pauses was fairly regular. In the contest style, however, the duration of each line was not regular, but the durations of the first group of 5-7-5 lines and the following group of 7-7 lines were fairly regular, with a great amount of prepausal lengthening before each pause. The mora in Japanese as an isochronous unit of timing seems to be abstract, but it is a basic rhythmic unit. This basic unit coexists with larger rhythmic units, such as the poetic line read in the prose style or the group of lines read in the contest style of *Tanka*.

## 1. INTRODUCTION

This paper attempts to observe the rhythm of *Tanka*, short Japanese poems, produced in two different styles: prose and contest styles. According to Lehiste (1990)[3], "the prosodic system of a language is crystallized in the metric structure of its traditional poetry." *Tanka*, basically composed of 31moras in 5-7-5-7-7 lines, is the most traditional Japanese poetry handed down since the Seventh Century.

In Homma (1985)[2], I investigated why this traditional type of verse sounds rhythmic, measuring the duration of each segment, mora, pause, line, and whole poem read as prose. I found that although the duration of each segment and mora had a greater range of difference and the number of moras of the lines was different,

the average durational differences of lines and whole poems were small.

The purpose of this paper is to confirm the results of my previous experiment and to compare the two different styles producing the same *Tanka* poems.

## 2. EXPERIMENT OF THE PROSE STYLE READING

### 2.1. Methods

I selected fourteen poems from the *One Hundred Poems from One Hundred Poets* (13th Century). Three of them have the regular 31-mora form, and the others have one hypermeter line in one of the five lines: one extra mora is added to one of the lines. The poems read as prose by five native speakers of Japanese were recorded on tape in the phonetic laboratory of the Ohio State University.

### 2.2. Measurements

Wide-band spectrograms of 70 poems (14 poems x 5 speakers) were made with a Kay-Sonograph (5500). In the present experiment, I measured the duration of lines, pauses, and whole poems, because I thought that the units in which moras would be manifested in Japanese must be larger than a line in poetry (Homma, 1985[2]). I got the average duration of moras by dividing the duration of the lines by the number of moras. The duration of initial stop consonants after pause was impossible to measure. All the values were rounded to the nearest 5 milliseconds.

Table I. Average duration ( $\bar{x}$ , ms) and standard deviation (SD) of moras, pauses, lines, and whole poems of *Tanka* read in the prose style

lines	(1)5-mora	(2)7-mora	(3)5-mora	(4)7-mora	(5)7-mora	whole poem
mora $\bar{x}$	155	136	149	137	138	---
SD	8.4	7.2	7.3	3.6	7.5	---
pause $\bar{x}$	223	41	437	59	---	---
SD	55.5	29.0	46.8	26.6	---	---
line $\bar{x}$	1017	1018	1200	1035	994	5264
SD	74.7	87.2	64.4	54.0	64.4	149.4

## 2.3. Results

Table I shows the average duration ( $\bar{x}$ , ms) and standard deviation (SD) of moras, pauses, lines, and whole poems of 70 *Tanka* read in the prose style.

From Table I, the following points were observed.

(1) The duration of each line including

style was a unit of temporal programming in Japanese (Lehiste, 1990[3]).

## 3. EXPERIMENT OF THE CONTEST STYLE READING

### 3.1. Methods

The same fourteen poems from the experiment of the prose style reading were

Table II. Average duration (ms) of moras of regular and irregular lines as read in the prose style

lines	(1)	(2)	(3)	(4)	(5)
regular	156	136	150	137	139
irregular	146	135	141	133	133
average	155	136	149	137	138

pause was fairly regular except for the third line, at the end of which the speakers took a breath.

(2) The adjustment for equidistant lines was achieved in two ways: first by changing the duration of pause, and secondly by changing the duration of moras by means of the speech rate.

Longer lines, especially irregularly longer lines, were read a little faster; thus the average duration of moras became shorter.

Table II presents the average duration of moras of regular and irregular lines with hypermeter.

These results supported Homma, 1985[2]. The poetic line of *Tanka* read in the prose

studied. This time I used a tape which was made by a publisher for the people who would like to participate in the time-honored contest played with these hundred verses on cards. The tape was recorded by one of the authorized speakers who read the poems in the contest style. The speaker made no pause between the lines, but took a long 9-second pause between 5-7-5 and 7-7 lines in accordance with the rules of the contest.

### 3.2. Measurements

Measurements were taken in the same way as in the first experiment.

### 3.3. Results

Table III shows the average duration ( $\bar{x}$ ,

Table III. Average duration ( $\bar{x}$ , ms) and standard deviation (SD) of moras, pauses, lines, and whole poems as read in the contest style

lines	(1)5-mora	(2)7-mora	(3)5-mora	(4)7-mora	(5)7-mora	whole poem
mora $\bar{x}$	208	258	434	388	454	---
SD	19.9	19.2	92.1	38.6	42.3	---
pause $\bar{x}$	0	0	0	65	---	---
SD	0	0	0	166.7	---	---
line $\bar{x}$	1073	1853	2221	2820	3265	11232
SD	141.6	88.2	435.7	278.8	211.6	788.4

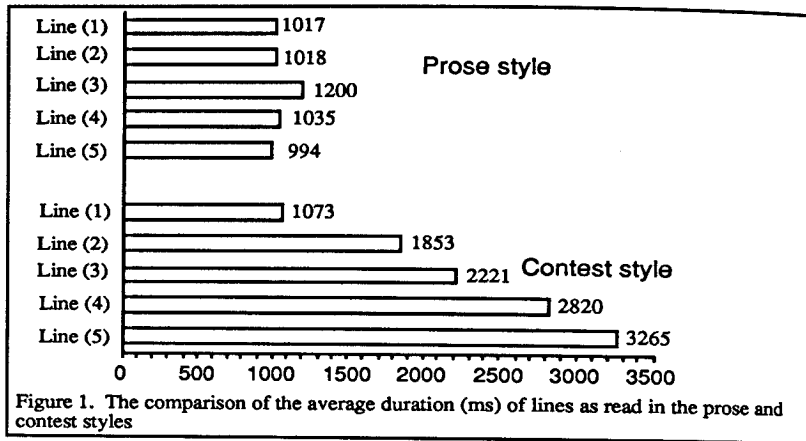


Figure 1. The comparison of the average duration (ms) of lines as read in the prose and contest styles

ms) and standard deviation (SD) of moras, pauses, lines, and whole poems of the fourteen *Tanka* read in the contest style; 9-second pauses after the third line were excluded.

Figure 1 compares the average duration of lines as read in the prose and contest styles.

Table IV. Average duration (ms) of moras of regular and irregular lines as read in the contest style

lines	(1)	(2)	(3)	(4)	(5)
regular	207	265	446	394	470
irregular	216	231	362	348	396
average	208	258	434	388	454

From Table III and Figure 1, the following points were observed.

(1) The speech tempo was much slower in the contest style. The average duration of whole poems excluding 9-second pauses was about twice as long as that of the prose style.

(2) The values of SD were smaller in the prose style. A great regularity existed in production of the prose style.

(3) The average duration of lines in the contest style was not equal; the duration of lines gradually increased. This means that in the contest style the unit of temporal programming was not a line.

(4) There were no pauses after the first, second and fourth lines, but instead a long

9-second pause was put between the groups of 5-7-5 and 7-7 lines. Extremely long prepausal lengthening was observed before pauses. At the end of the lines without pause, however, some amount of preboundary lengthening was observed.

(5) The average duration of moras of 5-mora lines was not longer than of 7-mora lines as in the prose style, although the

average mora duration of regular lines was longer than that of irregular lines. Table IV shows the average duration of moras of regular and irregular lines as read in the contest style.

The two kinds of efforts to keep equidistant lines in the prose style, the adjustment of the duration of pauses and moras, were not effectively made in the contest style.

(6) *Tanka* lines read in the contest style were divided into two groups: 5-7-5 and 7-7, before and after the long pauses. The average duration of the first and the second groups was 5,147 ms and 6,085 ms, respectively. Table V presents the average duration of each group in percentages. The whole duration of the poems excluding the long pause was measured as 100%.

Table V. Average duration of each group in percentages

5-7-5 group	7-7 group
46%	54%

Although the ratio did not show perfect isochrony, there was a strong tendency for the speaker to read the two groups isochronously with prepausal lengthening at the end of each group. It seems to me that the group of lines larger than the poetic line emerged as a unit of temporal programming in the contest style reading of *Tanka*.

#### 4. CONCLUSION

The basic rhythmic unit in Japanese is a mora. [To attest the existence of "a foot consisting of two morae" suggested by Poser (1990)[5] is beyond the scope of this paper.] The mora coexists with larger units such as a word in prose (Homma, 1981[1]; Port et al., 1987[4]), and a poetic line in the prose style (Homma, 1985[2]; Lehiste, 1990[3]). Moreover, a much larger rhythmic unit was found in the contest style reading of *Tanka*. To what extent the temporal programming works in Japanese is yet to be resolved at the moment, but as far as this experiment is concerned, the rhythmic unit was larger than the poetic line in the contest style reading of *Tanka*.

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