An Empirical Investigation into the Contrasting Language Rhythms of English and Japanese

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The author's teaching of English to Japanese students brought to light contrasts between Japanese and English that seemed similar to those discussed by Washizu (1987) and Yamamoto (1996). The main hypothesis is that English has a basically uneven rhythm in contrast to Japanese which has a basically even rhythm and this difference has a disadvantageous effect on the Japanese pronunciation of English. An initial research was carried out to test this hypothetical difference in language rhythm. The results of this test were inconclusive, but showed that pitch changes probably played a more important part in the perception of stress than originally supposed. Therefore this research acted as a pilot study by which the definition of the problem might be reconsidered as a basis for further testing.

Language stress may be expressed in one of three ways, or a combination of those ways: contrasts in pitch, intensity or syllable length. The contrast between a strong syllable and a subsequent weak one may be realized either by a change in pitch, a drop in volume as the respiratory muscles relax, or a shortening of the speaking time of the unstressed syllable. English has been called a stressed-timed language because there is a tendency towards isochrony in the rhythm of stressed syllables. This means that any intervening syllables, usually one, two, or even three, are weakened in strength, which may mean shortening in length in order that the overall isochrony of the stressed syllables is maintained. In contrast to this, Japanese has been called a syllable-timed language because there is a tendency towards isochrony between all the syllables. It is proposed in Washizu (1987) and Yamamoto (1996) that English speech rhythm tends towards an uneven rhythm, in contrast to Japanese which tends towards an even, or isochronic rhythm. This means that in pairs of alternately strong and weak stresses in English the contrast in stress might be expressed rhythmically, with or without the other indications of stress. The weaker syllable will be shorter in length compared to the stronger. In contrast to this, the idea that Japanese tends towards isochrony between syllables (Kindaichi, 1978; Washizu, 1987; Yamamoto, 1996) seems to suggest that relative stress between pairs of syllables is more likely to be expressed in pitch change or volume intensity.

Yamamoto goes further and uses the musical terms triple and duple, to make comparisons between English and Japanese. This may be interpreted to mean that in a pair of syllables where one is stressed and the other is unstressed, in the triple rhythm of English, the stressed syllable should be longer and the unstressed should be shorter in a ratio of 2:1. This implies that a poetic foot with two syllables maybe considered as being of three units length with a subdivision of 2:1 if considered as trochaic feet, or 1:2 if iambic. In contrast to this, the equivalent in the duple rhythm of Japanese would be a foot of two units length divided into a ratio of 1:1. These may be expressed in musical notation as follows.

English triple time: ♪ ♪ ♪ ♪
Japanese duple time: ♪ ♪ ♪ ♪ ♪ ♪ ♪ ♪

Yamamoto and Washizu discuss this difference with reference to the relation between language and culture and especially within the rhythms of music and dance. Washizu argues that the existence of so many English children's songs in the musical time of 6/8 suggests that this is the natural language rhythm manifesting itself in art.

I myself became interested in this theory because it
seemed to relate to language differences I noticed in teaching English as a foreign language to Japanese students. In teaching language rhythm through children’s songs and poems I perceived a difference between what I expected to hear as a native language teacher and what I thought I heard the students doing. This became especially focused in the poem Solomon Grundy, which will be discussed below, because the students, to my ear, seemed to speak some of the lines with an even beat as opposed to an uneven strong-weak beat as I had expected.

As Washizu and Yamamoto had very clearly expressed the theory of rhythmic differences between the two languages, it seemed appropriate to empirically test it, especially to identify a problem in teaching English as a foreign language to Japanese speakers.

The source of material for testing primarily grew out of some of the material from Yamamoto and Washizu which clearly exhibits the contrasts in rhythm. The following discussion will show how consideration of differences between the two languages naturally led to developing material for testing.

First, triple time in English can be exemplified in one line of the children’s poem Hickory, Dickory, Dock, a poem used in Washizu to show the triple time in English. (ibid: p. 101) The musical rhythm, as it might appear in a published song book is given below the words.

\[ \ddot{\text{\#}} | \ddot{\text{\#}} | \ddot{\text{\#}} | \ddot{\text{\#}} \]

The Mouse ran up the clock.

Here the stressed one of each pair of syllables is recognized by the 2:1 syllable length, as shown in the music, although this does not rule out the possibility of pitch accent or volume being used in actual execution in spoken language.

In contrast, the following example, which appears in both Washizu (p. 122) and Yamamoto (p. 228), is of the rhythm of a tanka poem.

\[ 4/4 \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} | \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} (\ddot{\text{\#}}) \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} | \]

Hikasata no hikari nodokeki
\[ \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} \ddot{\text{\#}} \text{ etc} \]

haru nohi ni, etc

\((\ddot{\text{\#}})\) and similar bracketing must be read as musical rests because that is what I am limited to with this word processing program.)

This example, from Bekku (1977) and recognized by Matsuura (1991), says something more than just that each syllable is of equal length. By the use of the quadruple time key signature and the eighth notes it implies that every other syllable is significantly stronger than its neighbour, giving a regular strong-weak-strong-weak pattern. As this is over an isochronic base it seems reasonable to argue that stress contrast must be realized in intensity or pitch change. However, one of the dangers of using musical notation and concepts for language is that they may encapsulate the language in somewhat idealistic and inflexible forms. Both Yamamoto and Washizu express reservations concerning the strict form of musical terminology. In actual fact Washizu (ibid: p. 123) argues for a more flexible concept of the above tanka, and considers a basic isochrony without necessarily being committed to strict musical meter. Similarly an allowance for greater rhythmical flexibility in English is also appropriate as it has been observed that English prose may modulate incessantly between equally spaced rhythms and unequally spaced rhythms. Nevertheless when these two extracts above are compared it is possible to see the differences in triple and duple time as proposed. There is another noticeable difference between the languages exposed in the examples above. That is the occurrence of the ‘up-beat’ in English, the weakly stressed syllable that precedes the first main stress. This is possibly due to the influence of the prepositional structure of English, in contrast to the post-positional structure of Japanese. Although this may be considered a significant difference in language rhythm between the two languages, it is not relevant to the thesis in question, nor was it considered an intervening variable in testing.

Although the concept of duple and triple time comparisons between the languages may perhaps be rather too inflexible it serves a purpose in this current analysis because it helps to make a further fruitful comparison between Japanese and English verse rhythms.
At this point it is essential to further clarify the definition of rhythms and rhythmic cycles. The discussion so far has concentrated on the rhythmic cycle of the foot, which means the regular recurrence of the strong stress. In music the equivalent of the foot is often called the beat, and it is well recognized that there are regular rhythmic cycles of beats, with a strong one occurring every second, third, fourth, etc. beat. Such cycles are called, in music, bars (or measures) and so we have two, three, four, etc. beat bars. (N. B., in orthodox musical language, triple time means a three beat bar and duple time, a two beat bar. However, in the present discussion these terms are used exclusively for rhythm within the beat and not in the conventional musical sense.)

Other natural forces than language may shape the rhythms of language, poetry and music. The ‘left-right-left-right’ rhythm of body swinging and swaying, walking, marching, etc. creates the binary effect of combining feet into pairs (two beats to a bar), or by making combinations of pairs of pairs (four beats to a bar). Hence many dances are in measures of two beats or four beats to a bar in cultures all throughout the world.

Starting from the idea of the binary rhythm of ‘left-right’ it is possible to show that comparisons can be made between English and Japanese verse that clearly expose the differences in rhythms within the foot. A basic even beat, such is set up by the body movement of left-right, left right, or to-fro, to-fro, gives a rhythm of 1-2-1-2, or a 1-2-3-4, which can be extended, or duplicated. If this counting is done aloud and the even pace is not to be broken it becomes necessary or convenient to rest the voice occasionally for sake of breathing. This may be the origin of the silent beat in verse. See below.

Ex. 1 One, two, three, four,
One, two three, (breath),

In the English language there may be one extra subdivision of the beat, thus creating dactyls.

Ex. 3 One-and-a two-and-a three-and-a four,
One-and-a two-and-a three. (breath)

This foundation of four beats in a bar can be seen as underlying rhythmic structure for popular kinds of verse forms both in Japanese and in English: the Japanese waka, or its shorter version the haiku, and the English limerick. These types of verse vary in how they distribute breathing lines and non-breathing lines, but otherwise they are similar in that their structures may be defined in terms of the patterns of 1, 2, 3, 4, or 1, 2, 3, (breath).

The first example is a typical waka rhythm given in Washizu (p. 122 (from Bekku 1977:77))

\[
4/4 | \text{[\text{a}] \text{[\text{a}] \text{[\text{a}] \text{[\text{a}]}}} | \text{[\text{a}] \text{[\text{a}] \text{[\text{a}] \text{[\text{a}]}}} | \text{[\text{a}] \text{[\text{a}] \text{[\text{a}] \text{[\text{a}]}}} | \text{[\text{a}] \text{[\text{a}] \text{[\text{a}] \text{[\text{a}]}}} | \\
1 \ & \text{&} \ 2 \ & \text{&} \ 3 \ & \text{(breath)} \ & \text{&} \ 1 \ & \text{&} \ 2 \ & \text{&} \ 3 \ & \text{&} \ 4 \ & \text{&} \ \\
1 \ & \text{&} \ 2 \ & \text{&} \ 3 \ & \text{(breath)} \ & \text{&} \ 1 \ & \text{&} \ 2 \ & \text{&} \ 3 \ & \text{&} \ 4 \ & \text{&} \\
1 \ & \text{&} \ 2 \ & \text{&} \ 3 \ & \text{(breath)} \ & \text{&} \ 1 \ & \text{&} \ 2 \ & \text{&} \ 3 \ & \text{&} \ 4 \ & \text{&}.
\]

The next example is a limerick by Edward Lear.

There | was a young lady of Ryde
\[ a \ & \text{&} \ 1 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 2 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 3 \ & \text{&} \ (breath) \]

Who | swallowed some apples and died
\[ a \ & \text{&} \ 1 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 2 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 3 \ & \text{&} \ (breath) \]

The | apples fermented inside the lamented
\[ a \ & \text{&} \ 1 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 2 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 3 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 4 \ & \text{&} \ 4 \ & \text{(breath)} \]

Making | cider inside her inside
\[ a-a \ & \text{&} \ 1 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 2 \ & \text{&} \ - \ & \text{&} \ a \ & \text{&} \ 3 \ & \text{&} \ (breath) \]

The above is a very typical limerick, built as it is of series of dactyls. However, in order to compare the English foot rhythm, trochaic or iambic, with the Japanese foot rhythm, it is preferable to use verse with two syllables to the foot rather than three, i.e. trochees rather than dactyls. The children's song, Hickory, Dickory, Dock, already mentioned above and which Washizu uses in her discussion of English rhythms, has the same line structure as the limerick.
but contains some lines with two syllables to a foot. The words and rhythms of the whole of ‘Hickory’ are as follows:

Hickory, dickory, dock.
1 - & - a 2 - & - a 3 (breath)
The mouse ran up the clock.
& 1 & 2 & 3 (breath)
The clock struck one, the mouse ran down.
& 1 & 2 & 3 & 4
Hickory, dickory, dock.
1 - & - a 2 - & - a 3 (breath)

Because the structural similarity between the waka, and by extension the haiku, and the limerick seems to decrease the possibility of intervening rhythmic variables appearing when comparisons are made, and because, on this common background, the rhythmic differences in the feet are clearly expressed, when searching for material for testing some haiku and Hickory, Dickory, Dock seemed obvious choices.

METHOD

Eight haiku were chosen for testing, and those chosen were ones whose phonological structure compared reasonably to the phonological structures of English. This was so that when the haiku were read in Roman script by native speakers of English there was more chance that the segmental pronunciation of the Japanese would sound reasonably correct. This was especially so as the English test subjects aimed for were expected to have no experience at all in speaking Japanese.

Other material was prepared for testing in addition to the eight haiku and Hickory, Dickory, Dock. I used the children’s poem ‘Solomon Grundy’ that I sometimes use in E. F. L. classes and which, as mentioned above, the students usually persist on pronouncing in what seemed to me to be a very Japanese way in spite of modeling by their teacher.

Other material was prepared and recorded by some, but not all, of the subjects. Two poems were prepared. One was a poem especially written for children and another written for adults by Robert Frost. Those were chosen because they seemed to be a halfway stage between the rhythmic rigidity of the two traditional children’s poems and the rhythmic ambiguity of natural spoken language. For a sample of prose an extract from Harry Potter was chosen as it seemed, by its current enormous popularity amongst children and adults, that it could be indisputably accepted as natural contemporary prose.

However in the end the analysis focused down on the poetic material because the detection of rhythmic patterns seemed very difficult in the more prose-like passages.

The subjects were chosen fairly randomly, but with the intention of getting sufficient recordings so that a balance could be made in the analysis between recordings by subjects whose first language was English (E subjects) and those whose first language was Japanese (J subjects). The J subjects were students from the Himeji Institute of Technology, Hyogo. The E subjects were personal contacts in Great Britain and Japan. The subjects spoke the material, and in no way sung it. The material was simply recorded into an MD player. The subjects were encouraged not to worry about mistakes, in fact to repeat any part of the text at any time they wished to. Of course the ultimate intent of the experiment was not revealed to them and I considered that they were suitably naive subjects, in that whatever they thought the recordings were for they probably would never have considered language rhythms. Before analysis I selected only those recordings in which I felt the subjects spoke sufficiently fluently to make sense of the underlying beat. If the reader could not read far enough ahead to create a sense of fluency in the underlying beat then the subdivision of those beats would probably not display the subjects’ natural rhythm.

Because of this, the reading of the haiku by the E subjects was very problematic. For the E subjects dwelling in Britain the Japanese language was so alien that the subjects tended to read very slowly from one syllable to the next with no or little sense of fluency. On the other hand I was reluctant to use the haiku spoken by the E subjects dwelling in Japan, because, not only were many of them students of Japanese to some degree or another, but also, living
constantly in a Japanese environment, they may well have been very sympathetic to the Japanese language and its rhythms, therefore this might have produced an overwhelming amount of unaccountable intervening variability. Therefore the idea of contrasting the way the Japanese haiku were spoken was unfortunately abandoned and the research concentrated on recording and contrasting the rhythms in the spoken English.

RESULTS AND ANALYSES

Analysis was carried out by the author on an auditory basis. Using the aural skills I have developed over the years as a music teacher and a foreign language teacher, I judged subjectively the pitch changes and syllable onsets and rhythms implied by them. This follows the style of other investigators, e.g. Gusshoven (1984), and Washizu (ibid.). It has been recognized that although certain linguistic phenomenon may be subjectively perceived as psychological realities their definition in physical terms still remains elusive.

Sample One

"The clock struck one, the mouse ran down."

\[ \downarrow | \downarrow | \downarrow | \downarrow | \downarrow | \downarrow | \downarrow \]

& 1 & 2 & 3 & 4

I analysed ten recordings, five by E subjects and five by J subjects, of these lines from Hickory, Dickory Dock. Some subjects paused between the phrases, as indicated by the comma, and others executed the rhythm through the two phrases with a strict regularity equivalent to the musical score. It was difficult to decide whether this strict adherence to the entire musical rhythm was natural language rhythm or due to earlier conditioning or training in poetry reading or music. Because of the inter-phrasal pause between 'one' and 'the,' this poetic foot was rendered invalid for analysis. It was therefore decided that, in this sample, analysis would focus on contrasting the lengths of 'clock' against 'struck' and 'mouse' against 'ran.'

The first thing observed was that the E subjects did not all concur with the perfect triple rhythm as indicated by the musical score, and as was expected. In fact two of the E subjects spoke with very even rhythms, as might be expected from Japanese speakers. One of the E subjects spoke with a rhythm that tended towards even rhythm. And the other two spoke the first phrase with a more uneven rhythm than the second phrase. This might have been the influence of the consonant cluster which almost unavoidably lengthened the time between the closure of the vowel in 'clock' and the onset of the vowel in 'struck', in contrast to the consonant cluster in the second phrase which allows for a more fluent execution. So it seems that either whatever underlying language rhythm might have been shaping the speakers' execution it was influenced by the articulation or, alternatively, it was the articulation that shaped the rhythm rather than an inherent language rhythm. Anyway, such diversity of rhythm tallies with the observation mentioned earlier that in prose at least the rhythms may modulate between being equally spaced to unequally spaced. So in the end, from the E subjects' rendition of this line, no clear common rhythm pattern was perceived.

Amongst the J subjects, five of them spoke with more or less even rhythms, as expected, whereas one spoke with a very strong triple rhythm.

In comparison to rhythm, however, there was one feature in common among the E subjects. The sense of stress was much more clearly indicated by pitch change. In all the subjects there was a distinct change of pitch from 'the' to 'clock.' This contrast gave emphasis to 'clock' and there was a definite fall onto or off of 'one' and the ultimate 'down.' This gave stress to these two phrase-ending words, suggesting that pitch change rather than rhythm was the key to the stress patterns.

When these pitch changes are compared with the J subjects', significant contrasts may be seen. Four of the J subjects spoke the initial 'the' with a clear 'schwa' and at a low pitch. But after the pitch change to a higher key, two of the J subjects spoke the complete line in one steady falling pitch; one spoke with each phrase as a falling pitch. The other two subjects spoke the line with sufficient pitch fall after 'clock' and 'one' to stress these words through pitch.
contrast.

Another small point emerged. One E subject and one J subject, in contrast to the other ten, did not rise but fell in pitch from ‘the’ to ‘clock’. This showed that it was not the rise or fall of pitch that provided the contrast for stress but the degree of rise or fall.

All this seemed to indicate that it was difficult to isolate rhythm as an independent structure from pitch change as an indicator of stress. It seemed as if pitch change was a more significant factor.

Sample Two

Whereas the first sample arose from a direct contrast of Japanese and English verse forms, the choice of the poem from which the second sample is taken arose from my classroom teaching. It was teaching language rhythms through poems such as Solomon Grundy where I first became aware of what I perceived as a rhythmic difference between Japanese and English and what attracted me to the theoretical comparisons made by Washizu and Yamamoto. From that poem the following two adjacent phrases were chosen, again, as above, because it was thought that the strong-weak-strong-weak pattern of the two syllables to a foot should reveal the rhythmic differences under investigation.

The second sample also has one advantage over the first in that there is no anacrusis beginning of the two phrases, beginning as they do with stressed syllables, thus being closer in form to the trochaic rhythm of the Japanese waka.

“Ill on Thursday, worse on Friday.”

1 & 2 & 3 & 4 &

Again as in the first sample, a balanced selection of recordings was chosen from each group: six from the E subjects and six from the J subjects, all spoken sufficiently fluently for analysis to be made.

The results were more unexpected than in the first sample. None of the six E subjects displayed a clear 6/8 rhythm; all tended more towards an even rhythm. On the other hand, of the six J samples, one tended towards a 6/8 rhythm, but the others tended towards an even rhythm as expected. Therefore the hypothesis of rhythmic differences between the languages was not supported at all.

However, as with the first sample, differences in pitch accents were noticeable. Both of the two phrases within the sample have similar rhythmic and grammatical structures, which might be why many subjects spoke both phrases with almost the same intonation patterns. Therefore these two phrases, over the two groups of six subjects, virtually gave a selection of two sets of twelve comparable phrases. Among the E subjects, in eleven out of twelve of the short phrases, stress on the first syllable was expressed by a significant pitch drop onto the second syllable. The stress on the first information loaded adjective contrasted clearly with the relatively unimportant preposition, ‘on’ thus bringing prominence and importance to the first word.

On the other hand, in their pairs of similar phrases, only one J subject fell from the first adjective to the following preposition. All of the others gave the same high pitch to the preposition as to the adjective, i.e. transmitted the same importance value to the preposition as to the adjective. Therefore, as with the first sample but even more so, it seemed that pitch changes rather than rhythm differences were the significant indicators of stress.

DISCUSSION

In the first place, that pitch change rather than rhythm seemed to be the significant indicator of stress should have been expected as it is nothing new. Bolinger’s theories of intonation are based on pitch change as the prime indicator of stress (Bolinger, 1986). In the second place, it seems that I might have made misjudgments in the classroom. I had sensed a lack of contrast between different syllables when the Japanese students spoke English. However, what I had judged to be a rhythmic problem, a lack of contrast in syllable length, might well have been an intonation problem in lack of contrast through lack of clear pitch change from the strong to the weak syllable. Ideally it would be better to record actual classroom practice to answer this question, although acoustic precision in classroom recordings can be very difficult.

It was mentioned above that what drew the author
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into the theory of rhythmic differences between the two languages, was that the idea seemed to fit with perceived errors in the classroom. In fact the author is not isolated in making his own theories about the causes of the differences between the two languages. Many English speakers, and also Japanese speakers, have done so. Sometimes it is said that in Japanese everything is spoken "without rhythm," "all the same," or that, "There is no intonation in Japanese". The most likely cause of these perceptions or misperceptions is the different ways that stress is expressed in language. When first-language speakers do not receive the aural cues they are accustomed to receive as part of the stress system in their own language, they sense something is lacking. They then may make an erroneous assumption that there is an absolute quality lacking, when in actual fact the cause may well be a linguistic difference between the two languages in the way that stress is expressed.

One crucial difference between Japanese and English is the weak vowel sounds, /a/, /i/, and /u/, by which weak stress is often expressed in English. These vowels are usually spoken in shorter time than the neighbouring strong stresses, which gives another reason for thinking that rhythm is an essential element in expressing stress contrast in English. These vowel sounds, with their accompanying shorter rhythm, do not exist in the Japanese phonetic system. On the other hand, the five Japanese vowel sounds are close in quality to English strong vowels. This means that when a Japanese speaks English with Japanese vowels a native speaker of English may perceive them as long or strong vowels. In addition, as it is quite possible that in imperfectly spoken English the natural English stress system is also awry due to irregular pitch patterns, this will increase the sensation that something is amiss. As the most identifiable feature may be the apparent chain of strong stresses produced by the Japanese vowels in English words, this may consequently give the illusion that 'everything sounds the same'. Furthermore it is possible that this apparent aberration in expected stress patterns may be perceived as rhythmic. It may be rhythmical in the sense of the order or disorder of strong and weak stresses but may not necessarily be rhythmical in the sense of syllable length.

In the analysis above, there was one example of misinterpretation caused not by lack of the weak vowel sound but by lack of pitch change. In Sample Two, the word 'on' was in an unstressed position, but is not necessarily a weak vowel. The stress contrast by the E subjects was clearly made by pitch change. Where such a pitch change was missing amongst the J subjects, the lack of stress contrast was apparent and I may well have misinterpreted this in my classroom experience as rhythmical. The above analysis has helped to clarify the possible causes of this problem.

The idea of looking for comparisons between native language and native music or poetry does bring to light one or two issues, because it assumes a close relation between the two. Lehiste (1990) in a study on rhythm in language states this assumption very clearly. He makes the basic assumption in his study that the prosodic system of a language is crystallized, as it were, in the metric structure of its traditional poetry, although he concedes that this is an untestable hypothesis (Lehiste, 1990: 123). However, in discussing the relation between culture and language rhythm and in comparing language rhythm with rhythms in music and poetry, and even in prose, one always has to bear in mind the balance between the influence of nature upon art, in this case natural language upon music, and the development in art of its own styles that may contrast with the natural phenomena from which they originated. Thus, although it may be argued that language influences music, it is also true that music develops its own structures. Various musicologists have noted how music can develop its own structures that tend to be at variance with the original linguistic structures from which they developed. (Asher, 1994; Kurath, 1960; Magdic, 1963; Schneider, 1961; Powers, 1980; List 1961, 1963) Another source of alienation between native language and native culture is when an alien culture influences the native, as Washizu notes in the decline of traditional Japanese children's songs since the conscious adoption of Western music in the Meiji times and the desire to emulate American culture in modern times.
Different degrees in the co-ordination of language and music have been observed in central Thailand.

We can conclude that in central Thai culture there is a high level of coordination of the pitch elements of speech and song in the recitations or chants used in the public schools ... and in folk songs such as lullabies .... Less coordination is found in the classical song where the association of pre-composed texts and tunes presents much difficulty in achieving this coordination .... Still less coordination is found in the present day popular song .... (List 1963: 30)

So considering List's findings, it was appropriate that Washizu searched for similarities between music and language similarities in the children's culture, as opposed to adult culture.

Therefore, until a relationship between the rhythm of an indigenous language and the indigenous music is confirmed, it might be better to look for crucial differences in intonation between the two languages in prose. After all, language teaching is ultimately aimed at teaching prose, not poetry. However, within such material it might be hard to find comparative extracts in the way that I was able to argue above for the relation between English and Japanese verse forms. If each language speaker were to speak their own native language it may be very hard to find matching material for comparative analysis. On the other hand, if we compare a native-language speaker with a second language speaker, we surely cannot know how much of the second language speaker's speech is influenced by their native tongue and how much has been already correctly improved in second language training. In gathering material for the above tests this factor inhibited me from using native speakers of English who dwell in Japan as subjects for speaking Japanese. How much second language training influenced the English speech of the J subjects was a factor about which I could never be sure. Indeed one J subject fulfilled all the expected criteria of a natural English speaker both in rhythm and pitch changes.

All these points need consideration in the selection of material, the selection of subjects, and the analysis in any further research in this area. The purpose of this publication is to air and share these views concerning research in this area.

References