Analysis of Japanese EFL Learners English Intonation

- Japanese and English Compounds -

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Abstract

This paper attempts to investigate characteristic features of Japanese EFL learners' English intonation and how their Japanese accents are affecting their English intonation, focusing on a comparison between the accent patterns of Japanese compounds and the stress patterns of English compounds. It is based on research dedicated to helping to improve the teaching and learning of English intonation (prosody) for Japanese EFL learners. It examines the Fundamental Frequency (henceforth Fx) contours of two EFL college students, one specializing in English and the other in Japanese. Both of them may be considered upper intermediate EFL students with their TOEFL (Test of English as a Foreign Language) scores ranging between 500 and 550.

1. Japanese pitch accent patterns may be summarized as follows:

(1) HL(LL...) If the first mora is high, the rest of the moras are all low.

For example, *ame* ("rain") has the pattern, HL; *midori* ("green"), HLL; and *adobaisu* ("advice"), HLLLL.

(2) LH(HH...)(LL...) If the first mora is low, the second mora is high, and the pitch either falls after an *x*th mora, which is lexically fixed, (all the moras after the *x*th mora are low), or remains high throughout the word, which is also lexically fixed. For example, *ame* ("candy") has the pattern, LH; *taberu* ("eat"), LHL; *sakura* ("cherry"), LHH; *pataan* ("pattern"), LHLL...

2. One certain characteristic of Japanese pitch accent patterns seems to affect

Japanese EFL learners' English intonation: that of compounds. Let us examine and compare pitch accent patterns of Japanese compounds with the stress patterns of English compounds.

2.1.Japanese compounds

2.1.1. Many Japanese words, when they are incorporated in compounds, change their accent pattern, due to the particular pattern imposed on the Japanese compounds. That is to say, if two words, A and B, compose a compound A-B, the pitch accent is low in the first mora, rises in the second mora and stays high within A in most compounds. For instance, the word *ame* ("rain") has the pattern, HL, but when it becomes part of the compound, *ame-furi* ("rainfall"), it has the pattern, LH-LL, which could well mean "candy-fall" because the pattern begins with LH, but the meaning is normally clear from the context. It is hard to imagine a candy-fall.

2.1.2. The word *kaki* ("oyster") has the pattern, HL, but when it becomes part of the compound, *kaki-furai* ("fried oyster"), it has the pattern, LH-HLL; also *kaki-meshi* "oyster rice") has the pattern, LH-HH. One day on NHK TV, a reporter was reporting about what he pronounced, *kaki-ressha* (LH-HLL), and the announcer at the TV station who was talking with her asked, "Is it an oyster train or persimmon train?" Both "oyster" and "persimmon" have the same phonemic sequence, and therefore they are homophones, but they are distinguishable in terms of accent patterns in citation forms: "oyster" is *kaki* HL, and "persimmon" *kaki* LH. Thus *kaki o taberu* can be perfectly intelligible according to the accent pattern used. If it is HL L LHL, it means "eat oyster(s)" and if it is LH L LHL, it means "eat persimmon(s)." However, when words are incorporated into compounds, the pitch accent distinction is neutralized, such as in *kaki-ressha* (LHHLL), which is made up of *kaki* and *ressha* ("train"). Thus this *kaki* could well mean either "oyster" or "persimmon." The reporter then had to explain that it was a specially chartered train for passengers enjoying the delicacy of oysters.

2.1.3. There are numerous other examples of this kind (featuring .words borrowed from English):

pasu (HL) ("pass") vs *pasu-pooto* (LH-HLL) ("passport")

sammaa (HLL) ("summer") vs *sammaa-koosu* (LHH-HLL) ("summer course")

sammaa (HLL) ("summer") vs *sammaa-taimu* (LHH-HLL) ("summertime")

suupaa(HLLL)("super") vs *suupaa-maaketto*(LHHH-HLLLL) ("supermarket")

suupaa (HLLL) ("super") vs *suupaa-man* (LHHL-LL) ("superman")

tenisu (HLL) ("tennis") vs *tenisu-shuuzu* (LHH-HLL) ("tennis shoes")

tenisu (HLL) ("tennis") vs *tenisu-kooto* (LHH-HLL) ("tennis court")

futto (HLL) ("foot") vs *futto-booru* (LHH-HLL) ("football")

mein (HLL) ("main") vs *mein-sutoriito* (LHH-HHHLL) ("main street")

tisshu (HLL) ("tissue") vs *tisshu-peepaa* (LHH-HLLL) ("tissue paper")

baasudee (HLLLL) ("birthday") vs *baasudee-keeki* (LHHHH-HLL) ("birthday cake")

mango (HLL) ("mango") vs *mango-juusu* (LHH-HLL) ("mango juice")

mineraru (HLLL) ("mineral") vs *mineraru-wootaa* (LHHH-HLLL) ("mineral water")

2.1.4. In all the examples in 2.1.3., if we look at the pitch accent patterns in the single words, we find that the first mora is high but the rest low. On the other hand, in each of the compounds incorprating those words as their first elements, the first mora is low, then the pitch rises in the second mora and stays high throughout the first element of the compound, except for the word, *suupaa-man* (LHHL-LL) ("superman"). The high pitch continues until the accented mora of the second element of the compound, i.e., where the pitch accent would fall if the second element were a single word. This may cause many Japanese learners of English to give the impression of highlighting the first syllable of the second element in the English counterpart of the Japanese compound. When they say, for instance, *mineraruwootaa* (LHHHHLLL) ("mineral water"), it may well sound as if they were putting the primary stress on the first syllable of "water" instead of on the first syllable of "mineral."

2.2. English compounds

According to John C. Wells (1990, 2000), "A two-element compound is typically pronounced with **early** stress: that is to say, its first element has more stress than its

second." If we use the same words referred to in 2.1.3. above, the comparison of the Japanese pitch accent patterns and the stress patterns of the English compounds looks as follows:

Japanese	**English**
pasu-pooto (LH-HLL)	passport ['pɑ:spɔ:t] (RP) ['pæ:spɔ:t](GA)
sammaa-koosu (LHH-HLL)	summer course ['sʌmə kɔ:s] (RP) ['sʌmɚ kɔ:rs] (GA)
sammaa-taimu (LHH-HLL)	summertime ['sʌmə taɪm] (RP) ['sʌmɚ taɪm] (GA)
suupaa-maaketto (LHHH-HLLLL)	supermarket ['su:pəmɑ:kɪt] (RP) ['su:pɚmɑ:rkɪt] (GA)
suupaa-man (LHHL-LL)	superman ['su:pəmæn] (RP) ['su:pɚmæn] (GA)
tenisu-shuuzu (LHH-HLL)	tennis shoes ['tenɪs ʃu:z]
tenisu-kooto (LHH-HLL)	tennis court ['tenɪs kɔ:t] (RP) ['tenɪs kɔ:t] (GA)
futto-booru (LHH-HLL)	football ['fʊtbɔ:l] (RP) ['fʊtbɑ:l] (GA)
mein-sutoriito (LHH-HHHLL)	main street ['meɪn stri:t]
tisshu-peepaa (LHH-HLLL)	tissue paper ['tɪʃu: ˌpeɪpə] (RP) ['tɪʃu: ˌpeɪpɚ] (GA)
baasudee-keeki (LHHHH-HLL)	birthday cake ['bɜ:θdeɪ keɪk] (RP) ['bɝ:θdeɪ keɪk] (GA)
mango-juusu (LHH-HLL)	mango juice ['mæŋgəʊ ʤu:s] (RP) ['mæŋgoʊ ʤu:s] (GA)
mineraru-wootaa (LHHH-HLLL)	mineral water ['mɪnrl ˌwɔ:tə] (RP) ['mɪnrl ˌwɑ:tɚ] (GA)

2.3. Let us now examine some samples of actual utterances made by Japanese

EFL learners. Two Japanese EFL learners, both university students, one specializing in Japanese and the other in English. They may be considered two of the best students I have had in their respective field of study. They were asked to utter eight pairs of words:

1:	*pasu-pooto*	passport
2:	*sammaa-koosu*	summer course
3:	*sammaa-taimu*	summertime
4:	*suupaa-maaketto*	supermarket
5:	*suupaa-man*	superman
6:	*futto-booru*	football
7:	*tiishatsu*	T-shirt
8:	*mein-sutoriito*	main street

2.3.1. Pictures, J1 to J8 and E1 to E8, shown below are the Fx (fundamental frequency) contours shown on a computer screen by the Laryngograph Processor (by Laryngograph Ltd.). J1 to J8 are the ones uttered by the student of Japanese and E1 to E8 by the student of English.

2.3.1.1. *pasu-pooto* and passport

Both students did well in both Japanese and English. Their Japanese pitch accent in *pasu-pooto* was clearly LH-HLL and their English stress pattern in "passport" was ['pɑ:spɔ:t].

2.3.1.2. sammaa-koosu and summer course

Both students did well in the Japanese compound. Their Japanese pitch accent in *sammaa-koosu* was clearly LHH-HLL. The student of English did well in the English compound, too, but the student of Japanese seems to have uttered "summer course" as if it had the nuclues on "course." It looked as if she placed a high head on "summer" and a low-fall nuclues on "course." Thus it sounded as if she said, ['sʌmə ˌkɔ:s], which clearly shows interference from the Japanese pitch accent pattern.

2.3.1.3. *sammaa-taimu* and summertime

Both students did well in the Japanese compound. Their Japanese pitch accent in

sammaa-taimu was clearly LHH-HLL. The student of English did well in the English compound, too, but the student of Japanese seems to have uttered "summertime" as if it had the nucleus on "time." It looked as if she placed a high head on "summer" and a high-fall nuclues on "time." Thus it sounded as if she said, ['sʌmə `taɪm].

2.3.1.4. *suupaa-maaketto* and supermarket

Both the Japanese and English students did well in both the Japanese and English words. Their Japanese pitch accent in *suupaa-maaketto* was clearly LHHH-HLLLL, and their stress pattern in "supermarket" was ['su:pəmɑ:kɪt].

2.3.1.5. *suupaa-man* and superman

Both students did well in the Japanese compound. Their Japanese pitch accent in *suupaa-man* was clearly LHHL-LL. The student of English did well in the English compound, too, but the student of Japanese seems to have uttered "superman" as if it had the nuclues on "per." It looked as if she placed a high head on "su" and a high-fall nuclues on "per." Thus it sounded as if she said, ['su: `pa:man], which clearly shows interference from the Japanese pitch accent pattern.

2.3.1.6. *futto-booru* and football

Both the Japanese and English students did well in both the Japanese and English words. Their Japanese pitch accent in *futto-booru* was clearly LHH-HLL, and their stress pattern in "football" seemed to be ['fʊtbɔ:l].

2.3.1.7. *tiishatsu* and T-shirt

Both the Japanese and English students did well in both the Japanese and English words. Their Japanese pitch accent in *tiishatsu* was clearly LH-HH, and their stress pattern in "T-shirt" was ['ti:ʃɜ:t].

2.3.1.8. *mein-sutoriito* and main street

Both students did well in the Japanese compound. Their Japanese pitch accent in *mein-sutoriito* was clearly LHH-HHHLL. The student of English did well in the English compound, too, but the student of Japanese seems to have uttered "main street" as if it had the nuclues on "street." It looked as if she placed a rising head on "main" and a falling nuclues, somewhat between high-fall and low-fall, on "street."

Thus it sounded as if she said, [↗meɪn `striːt] or [↗meɪn ˏstriːt] which clearly shows interference from the Japanese pitch accent pattern.

3. This paper examined some characteristic features of Japanese EFL learners' English intonation and how their Japanese pitch accent patterns interfere with their English intonation, focusing on a comparison between the accent patterns of Japanese compounds and the stress patterns of English compounds. The results are that in some utterances of English by the student specializing in Japanese, we found some interference of Japanese pitch accent patterns in their English stress patterns, which may give the impression that the nucleus is placed on a syllable on which native speakers would not place the nucleus.

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