

Intonational Interference in Japanese Learners' English

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ABSTRACT

This paper is based on research designed to improve the teaching and learning of English intonation for Japanese EFL learners. Using experimental analysis of fundamental frequency, this paper outlines three of the weak points Japanese EFL learners have in English intonation: tonality, tonicity and tone. (a) In terms of tonality, Japanese learners of English tend to divide the text into unnecessarily many word groups. (b) In terms of tonicity, they tend to place the nucleus on the last word in each word group, regardless of the context, failing to deaccent old information. This is due to interference from Japanese, in which old information is not necessarily deaccented. (c) In terms of tone, too, they tend to make errors caused by interference from Japanese. These three weak points will be discussed using experimental Fx data from audio recordings of the subjects.

1. INTRODUCTION

This paper is based on research designed to improve the teaching and learning of English intonation for Japanese EFL learners. Using experimental analysis of fundamental frequency (henceforth Fx), this paper outlines several weak points Japanese EFL learners have in English intonation, in particular errors resulting from wrong choices of nucleus placement (e.g. accenting old information) and of tone. Both types of error are due to interference from Japanese.

2. SUBJECTS, MATERIAL AND METHOD

The subjects were twenty-five Japanese university students specializing in teaching English as a foreign language to Japanese learners at primary and secondary levels. The material used was a short dialogue from the film *Butch Cassidy and the Sundance Kid* (1969), starring Paul Newman and Robert Redford, as shown below (A and B represent the actors playing the roles of two people running away from pursuers. Very long lines have been shortened, and some words edited out.)

(Line 1) A: Ah, you're wasting your time. (2) They can't track us over rock. (3) B: Tell them that. (4) A: They're beginning to get on my nerves. (5) Who are those guys? (6) B: You remember the time you and me and Etta went to Denver? (7) A: I'm glad you brought that up, Kid. (8) That's an important topic considering our situation. (9) B: The night we went gambling, you remember? (10) A: We had dinner at the hotel. (11) Etta had roast beef and I had chicken. (12) And if I can remember what you had, I'll die a

happy man. (13) B: Look out there. (14) A: What? (15) B: We got to talking to some gambler that night, (16) and he told us about an Indian, (17) a full-blooded Indian (18) except he called himself with an English name, (19) Sir somebody. (20) A: Lord Baltimore? (21) B: Lord Baltimore. That's right. (22) And he could track anybody, over anything, day or night. (23) A: So? (24) B: The guy on the ground, I think it's him. (25) A: No, Baltimore works out of Oklahoma. (26) He's strictly an Oklahoma man. (27) I don't know where we are, but it sure isn't Oklahoma. (28) No, it couldn't be him. (29) Couldn't be him. (30) B: I guess. (31) Whoever it is, it sure is somebody.

The subjects were told to read the script of the dialogue silently, watch the scene of the dialogue on video and understand the context. No sound was played for them until after the experiment was completed. The subjects were then asked to read the dialogue aloud, line by line, to the Laryngograph Processor, a computer-operated machine for extracting Fx, which enables us to see the physical counterpart of our own intonation, in real time.

3. ANALYSIS

The performance of the subjects was analyzed in terms of tonality, tonicity and tone, i.e., how they divided the texts into word groups, on which syllables they placed nuclei (and other accents), and what tones they used for the nuclei. The analysis is based on the account of English intonation given in [1].

4. RESULTS AND COMMENTARY

Line 1: "Ah, you're wasting your time." All the subjects placed their nucleus or one of their nuclei on the correct place, "time," but 56% also placed another nucleus on the first syllable of "wasting," which would make them sound rather unnatural or too emphatic.

Line 2 "They can't track us over rock." A vast majority, 92%, placed the nucleus on the right place, "rock," but still 56% placed a nucleus on "track" as well, which again would make them sound rather unnatural or too emphatic. This is an error of tonality.

Line 3 "Tell them that." Only 12% placed a nucleus on the correct place, "them." In my view [2], Japanese learners have a tendency to place the nucleus on the last word within the word group regardless of the context. This may happen to lead them to correct nucleus placement, but not always, because the last word may be old information, which then

must be deaccented, whether it be a content or function word. Many Japanese learners seem to be unaware of the contrast between old and new information, or even if they may sometimes be aware of it, it does not always lead to correct nucleus placement. This may well be due to interference from Japanese, as pointed out in [2].

Line 4 “They’re beginning to get on my nerves.” All the subjects placed a nucleus on the correct place, “nerves,” but 68% also placed another nucleus on the second syllable of “beginning,” which again would make them sound rather emphatic. This also reveals another tendency of Japanese learners’ intonation of English, that is, that they divide the text into too many word groups, thus producing too many nuclei.

Line 5 “Who are those guys?” The correct place for the nucleus would have been “are” or “guys,” but 72% placed a nucleus on “Who” and 88% on “guys.” The nucleus placement on “Who” may be due to interference from Japanese, because the Japanese word for “who” is normally accented. None of the subjects placed a nucleus on “are,” which could well be the right choice. The subjects were evidently unaware that in English the word immediately after a question word is often accented. A few minutes before this scene, the actor had said, “Who are those guys?” placing the nucleus on “guys,” (High-Fall) and then in this scene, he repeated it, placing the nucleus on “are.” (High-Fall)

Line 6 “You remember the time you and me and Etta went to Denver?” Some 96% placed a nucleus on the right syllable, “Den-,” but again this may not mean that they knew what they were doing; they may only have happened to make correct nucleus placement, because it happened to be in the last word. Some 60% placed another nucleus on “time,” perhaps because the whole utterance was too long for them to utter in one word group. This may be acceptable in such a long utterance, but the subjects have a tendency to divide even short utterances into small word groups, which would make their intonation rather unfocused, and would make the listener wonder what they really meant.

Line 7 “I’m glad you brought that up, Kid.” Only 24% placed a nucleus on the correct place, “up,” and 80% placed one on the last word, “Kid,” which is a final vocative and would not be a nucleus in English. This proves that many Japanese learners do not know the rule that a final vocative should not be accented and that they have a strong tendency to place a nucleus on the last word regardless of its syntactic function.

Line 8 “That’s an important topic, considering our situation.” Most of the subjects did very well; 84% placed a nucleus on the first syllable of “topic” and 96% on the third syllable of “situation.”

Line 9 “The night we went gambling, you remember?” All the subjects placed nuclei on the correct places, the first syllable of “gambling” and the second syllable of “remember,” but 56% placed another nucleus on “night,”

which would make their focus blurry. The tones used by most of the subjects for the first syllable of “gambling” (84% used a High Fall) and the second syllable of “remember” (96% used a High Rise) were quite appropriate.

Line 10 “We had dinner at the hotel.” Some 96% placed a nucleus on the correct place, the second syllable of “hotel,” but another 96% placed another nucleus on the first syllable of “dinner” as well, which again would make the focus blurry or sound too emphatic. Overall, however, their intonation may well be acceptable, because the nucleus placement on the final word happens to be correct.

Line 11 “Etta had roast beef and I had chicken.” The important point in this line is whether the subjects could notice the contrast between “Etta” and “I” and another between “roast beef” and “chicken.” Only 44% placed a nucleus on “I,” i.e., 56% missed it. However, 96% successfully placed a nucleus on the first syllable of “chicken,” although this does not necessarily mean that they knew what they were doing, because, as stated above, many Japanese learners tend to place a nucleus on the last word in the word group anyway. The fact that more subjects placed a nucleus on “roast” (56%) than on “beef” (40%) implies that many Japanese learners are not aware of the stress pattern of “roast beef,” which has late stress.

Line 12 “And if I can remember what you had, I’ll die a happy man.” Strikingly, none placed a nucleus on “you,” which implies that none of them were aware of the contrast between the people referred to in the previous line (Etta and I) and the one referred to in this line (you). Since the Contrastive Stress Rule overrides all other stress rules in English, it is important for learners of English to notice any possible contrasts that may exist in the text they are reading and to orally express them accordingly. The word “had” should be deaccented because it has been used in the previous line (twice) and now is old information, but 80% placed a nucleus on it. Another error, which was made by nearly half of the subjects, was placing the nucleus on the first syllable of “happy” (48%) rather than on “man.” This is probably due to their ignorance of the stress pattern of “happy man,” which idiomatically has late stress.

Line 13 “Look out there.” Although the correct place for the nucleus would have been “Look,” 76% placed a nucleus on “there,” which implies that Japanese learners tend to place a nucleus on the last word even if it is a final adverbial indicating place, which is normally unaccented in English. Most of the subjects did not know this feature in English intonation.

Line 14 “What?” A total of 84% chose a rise (64% High Rise and 20% Low Rise), and only 16% chose a fall (12% High Fall and 4% Low Fall). This implies that there was intonational interference from Japanese, because in Japanese a rise would most normally be used for this kind of utterance. This is an error in the choice of tone, which would cause the meaning of the utterance to be misinterpreted, because “What?” uttered in a rise, especially in a High Rise, would be interpreted as a repetition question asking the other person to repeat what

she/he has just said. However, in this context, the speaker does not mean it; he means, “What do you see out there?” and it would most normally be uttered in a fall (High Fall or Low Fall).

Line 15 “We got to talking to some gambler that night,” Although the correct place for the nucleus is the first syllable of “gambler,” 76% placed a nucleus on the first syllable of “talking.” In fact, 88% of the subjects did place a nucleus on the first syllable of “gambler,” and 72% placed nuclei both on the first syllable of “talking” and on the first syllable of “gambler,” which made their utterances rather slow-sounding and a bit too emphatic. However, 76% also placed a nucleus on the last word, “night.” Since “that night” is a final adverbial phrase indicating time, it is normally deaccented, but most of the subjects were unaware of this rule.

Line 16 “and he told us about an Indian,” Although 88% placed a nucleus on the correct place, i.e., the first syllable of “Indian,” 92% placed a nucleus on “told,” which would make their utterance too emphatic.

Line 17 “a full-blooded Indian” Here again, an overwhelming majority of the subjects, 88%, placed a nucleus on the last word, “Indian,” which again implies that Japanese learners most normally place a nucleus on the last word without taking the context into account. In this context, “Indian” was mentioned in the previous line and then is repeated in this line, and therefore it is old information and should be deaccented. The last content word which is not old information in this line is “full-blooded,” and its second syllable bears its lexical stress, which is therefore the correct place for the nucleus. Only 4% placed a nucleus there.

Line 18 “except he called himself with an English name,” More than half of the subjects, 60%, placed a nucleus on the last word, “name,” which again proves that Japanese learners have a tendency to place a nucleus on the last word in the word group. It also implies that they failed to notice the contrast between “Indian” in the previous line and “English” in this line. Only 40% placed a nucleus on the first syllable of “English.” Again it may also be said that many Japanese learners do not know the Contrastive Stress Rule as mentioned above.

Line 19 “Sir somebody.” Most subjects, 88%, placed a nucleus on the correct syllable, i.e., the first syllable of “somebody,” but a small number of them, 12%, placed one on “Sir” and another 12% on the second syllable of “somebody,” which means they did not know the lexical stress of this word.

Line 20 “Lord Baltimore?” Most subjects, 88%, placed a nucleus on the correct syllable, i.e., the first syllable of “Baltimore,” but a small number of them, 12%, placed one on “Lord” and another 12% on the second syllable of “Baltimore,” which means they did not know its lexical stress.

Line 21 “Lord Baltimore. That’s right.” Nearly half of the

subjects, 44%, placed their first nucleus correctly on the first syllable of “Baltimore,” but more than half of them, 56%, did not know the lexical stress of “Baltimore.” All the subjects did well in “That’s right.”

Line 22 “And he could track anybody, over anything, day or night.” The subjects’ performance was nearly perfect here with the nuclei placed on the first syllable of “anybody” (92%), the first syllable of “anything” (100%), and “night” (100%).

Line 23 “So?” Most of the subjects, 96%, used a rise (68% High Rise and 28% Low Rise), which is appropriate, although it may be because Japanese learners have a tendency to use a rise wherever there is a question mark. This is why many of them used a rise in Line 14 above, where a fall would normally be used by native speakers of English.

Line 24 “The guy on the ground, I think it’s him.” Most of the subjects did well, (80% on “ground” and 96% on “him”), probably because the correct place of the nucleus in each word group happened to be the last word in each of them.

Line 25 “No, Baltimore works out of Oklahoma.” The correct places for the nuclei would have been “No” and the third syllable of “Oklahoma.” Most of the subjects did well (100% on “No” and 80% on the third syllable of “Oklahoma”), although some of them did not know the lexical stress of “Baltimore” or that of “Oklahoma.”

Line 26 “He’s strictly an Oklahoma man.” Just over half of the subjects, 56%, placed a nucleus on the first syllable of “strictly.” They might have thought that “Oklahoma man” was old information (because “Oklahoma” had been referred to in the previous line). The concept ‘Oklahoma’ (place) was mentioned, but not the concept ‘Oklahoma man’ (person), so it needs an accent. Nearly two thirds of them, 64%, placed a nucleus on the correct place, the third syllable of “Oklahoma.” They might have realized that the concept ‘Oklahoma man’ was new, but they might have just placed a nucleus near the end of the word group. About a third of them, 36%, placed one on “man,” which implies that they were not aware of the compound “Oklahoma man,” or if they were, they were unaware of the compound stress rule.

Line 27 “I don’t know where we are, but it sure isn’t Oklahoma.” In the first word group, “I don’t know where we are,” 64% of the subjects placed a nucleus on the syllable, “are,” but some of them placed nuclei on other syllables, “don’t,” “know,” and “where,” which would make their utterance out of focus. In the second word group, “but it sure isn’t Oklahoma,” 76% of the subjects placed a nucleus on the third syllable of “Oklahoma,” which happens to be acceptable because, as has been mentioned above, it was once deaccented and can certainly be re-accented here. It is difficult to conclude that the subjects actually interpreted this utterance this way, although I hope they did, when they placed a nucleus on the third syllable of “Oklahoma,” because, as has been mentioned many times

above, there is a strong tendency for Japanese learners to place a nucleus on the last word in each group whatever the context.

Line 28 “No, it couldn’t be him.” Only 56% of the subjects placed a nucleus at the correct place, the first syllable of “couldn’t.” Over half of them, 60%, placed a nucleus on the last word, “him,” which would have been appropriate if they had chosen a Fall-Rise for the tone. Out of the 60%, actually, 32% chose a High Fall, and 28% chose a Low Fall. Here again, therefore, we see an example that shows a tendency to place a nucleus on the last word in each word group regardless of the context. Accenting old information is one of the weakest points for Japanese learners of English.

Line 29 “Couldn’t be him.” Although 76% of the subjects placed a nucleus at the correct place, the first syllable of “Couldn’t,” more than half of them, 52%, also placed a nucleus on the last word, “him,” and therefore what was mentioned for Line 28 can be said for this line as well.

Line 30 “I guess.” All the subjects, 100%, did well, placing the nucleus on “guess,” or just may have happened to do well because it was the last word in the word group, as discussed above.

Line 31 “Whoever it is, it sure is somebody.” In the first word group, “Whoever it is,” 60% of the subjects placed a nucleus on the first syllable of “Whoever,” and only 56% on “is.” As has been seen in the overall results in this experiment, Japanese learners have a tendency to place too many nuclei in each word group. In the second word group, “it sure is somebody,” 64% of the subjects placed a nucleus on “sure,” which may be stressed and accented but would not be the main focus in the word group. Some 84% placed a nucleus on the first syllable of “somebody,” which happens to be correct because “somebody” is not exactly the same person as was previously referred to in this scene as “Lord Baltimore,” but just “somebody” not identified yet. It is, however, doubtful that the subjects interpreted it this way. Probably they just automatically placed the nucleus on the last word in the group.

5. CONCLUSIONS

The results of this experiment reaffirmed the following points: (a) In terms of tonality, Japanese learners of English have a tendency to divide the text into too many word groups or place too many nuclei in each word group, ending up in giving an impression of over-emphasis or making their utterance out of focus. (b) In terms of tonicity, Japanese learners of English often fail to deaccent old information. They have a strong tendency to place the nucleus on the last word in each group, regardless of the context. They are either unaware of the contrast between new and old information or, even if they are aware, they often fail to abide by the English rule that old information should be deaccented. This may be due to interference from Japanese, in which old information is not necessarily deaccented. (c) In terms of tone as well, Japanese learners

of English have a strong tendency to exhibit interference from Japanese. Where there is a question mark, they tend to use a rise (High Rise or Low Rise), regardless of the context or the question type (whether it is a question-word question or a yes-no question). This paper’s suggestions for Japanese learners of English intonation are as follows: (a) In order to help them to improve their English intonation, they should avoid certain Japanese intonational habits and learn such English stress and intonation rules as those for compound and phrase stress and those for deaccenting old information and accenting new information. (b) They should think deeply of the context in which the utterance is to be made and use the appropriate tone, tonicity and tonality for the context and meaning. (c) In order to achieve this, Japanese learners should listen to native speakers carefully and imitate them so as to reduce interference from the intonation of their first language.

REFERENCES

- [1] J. D. O’Connor and G. F. Arnold. *Intonation of Colloquial English*. London: Longman, 1973.
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