

## Rhythm of French by Japanese learners --- on the length of the final syllable

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### 1. Introduction

#### 1.0. Importance of the suprasegmental features in SLA

#### 1.1. Importance of the accent in French

中村・長谷川(1995)

(...) フランス語のアクセントで重要なのは、個々の語のアクセントではなく、語群のアクセントだということです。(...) フランス語では、語群のアクセントが意味と密接に結びついて重要な役割を果たしているという事実をいかに強調してもしすぎることはありません。そして、このことは、意味上重要な語がふつう語群の最後におかれるというフランス語の語順の特色と切り離しては考えられず、(...) アクセント位置は、しばしばポーズの位置と呼応し、メッセージの内容と密接に関連していると言えるでしょう。(pp. 14-15)

#### *ibid.*

アクセントの位置の違いは、ともすると意味の違いにつながりかねない。以下のような場合がそれである。

C'est un disque. /C'est un discours. C'est une ville. /C'est une villa.

Il y a une photo. /Il y a une faute. Il est étrange. /Il est étranger. (p. 20, 注7)

大橋(1993)

フランス語に限らず何語でも、正確な理解と表現のためにまず必要なのは、聞き手にとって未知の要素、つまり情報の存在理由となるかんじんの部分はどれかをはっきりさせることです。そして、フランス語の構文のもっとも基本的な原則は、アクセントのある位置にかんじんの要素をもってくることにあります。(p.34)

#### 1.2. Characteristics of the accent in French

Léon(1992)

On constate qu'en français standard une syllabe accentuée est en moyenne deux fois plus longue qu'une syllabe inaccentuée. On a vu que des variations de durées importantes peuvent être dues au nombre de phones dans la syllabe, à leur nature propre, à leur distribution et au type d'énoncé. Néanmoins, d'un point de vue statistique, la relation 2/1 de syllabe accentuée à inaccentuée ne change pas. (pp. 107-108)

#### *ibid.*

La paramètre d'intensité n'est pas toujours suffisant pour être différenciateur, comme non plus celui de hauteur dans la parole ordinaire. Il reste que la durée, elle, fonctionne presque toujours en français standard comme la marque essentielle de l'accentuation. (p. 107)

ロベルジュ・木村(1990)

つまり、フランス語のアクセントが、主に長さによって特徴づけられるのアクセントであるのに対し(ちなみに末尾音節の母音は同じリズムグループにおける他の音節の母音よりも、平均2.5倍長い)、(p. 37)

#### 1.3. Durational characteristics of the sentence-final syllable in Japanese

**Takeda, Sagisaka et Kuwabara (1989)**

(on durational characteristics of Japanese)

shorter durations are found in sentence-final position in read sentences than in the other positions.

**Campbell (1992)**

(On Sentence-Final lengthening)

Following the trail of the /a/ in this context, we come to the phenomenon of sentence-final shortening in Japanese. This has been reported (Kaiki and Sagisaka, this volume; Kaiki, Takeda and Sagisaka 1990) from an analysis of the same speech database, and is in contrast to the more commonly found clause-final lengthening of other languages, and phrase-final lengthening of Japanese. (pp. 414-415)

李敬淑(2000)

(日本語母語話者と韓国人ソウル方言話者で初級日本語学習者の発話について)

日本人、韓国人ともに文末長音化現象が見られたが、韓国人の方が日本人より文末を長く発音する傾向が見られた(図3,4)。文末長音化現象は、普遍的な現象として捉えられているが(Laver 1994)、言語によって長音化には程度の差があることが明らかになった。

**1.4. Remarks by French native speakers**

ロベルジュ(1979)

日本人はリズム・グループの最後の母音を十分に強調しない。フランス人にとってさらに聴き取りにくいのは、その母音に十分な長さを与えない場合である。

**2. Methodology****2.1. Research questions**

- 1) Do native speakers of Japanese learning French exhibit a tendency toward an insufficient final lengthening? If so, in what conditions?
- 2) Is the presence or the absence of this tendency related with the characteristics found in sentences in Japanese?
- 3) Does an insufficient final lengthening cause difficulties in listening by native speakers of French?

**2.2. Data collection, analyses and experiences**

- i) On the length of the final syllable in French sentences read by learners
- ii) On the length of the final syllable in Japanese sentences read by the same subjects
- iii) Perception test with native speakers of French

**2.2.1. Experiment 1**

Objective : To examine the final syllable in French sentences read by learners (addresses Research question 1)

Subjects : 11 first-year students at Komaba, with two to three months of learning experience

Materials : 45 short sentences (40 declaratives + 5 interrogatives marked by a rising intonation) taken from a textbook in French phonetics, of which 13 were analysed in detail. Sentence length varying from two to five syllables.

Procedure : The subjects were presented with sentences printed on a sheet, and were asked to read them aloud, one by one. Then they heard the model recording,

and they imitated it. The two utterances shall be called, respectively, Corpora 1-1 and 1-2.

**Analysis :** The utterances were segmented. Two things were calculated : i) length of the vowel in the final syllable / length of the whole sentence ; ii) length of the final syllable / length of the whole sentence. These figures were compared to those of the model recording.

### **2.2.2. Experiment 2**

**Objective :** To examine the final syllable in Japanese sentences read by the same subjects (addresses Research question 2)

**Subjects :** The same learners as described above

**Materials :** 19 short sentences (16 declarative + 3 interrogative) in Japanese, conveying approximately the same quantity of information. Six of them analysed in detail. Sentence length varying from 4 to 14 morae.

**Procedure :** As in Experiment 1, the subjects were presented with printed sentences and asked to read them aloud one after another.

**Analysis :** After segmentation, as in Exp. 1, I calculated the weight of the final mora, i.e. length of the final mora / mean length of the other syllables in the same *bunsetsu*. I also computed the t-value with a hypothesis to adopt :

H : The length of the final mora is not significantly larger than the mean of the other syllables

### **2.2.3. Experiment 3**

**Objective :** To see if a prolonged final syllable improves comprehension and naturalness

**Subjects :** Four native speakers of French, teaching French to university students in Japan

**Materials :** Twelve pairs of sentences in French, each one consisting of i) an utterance selected from Corpus 1-1 which had a considerably short final syllable compared with that of the model ; ii) a synthesised speech gained by prolonging the length of the final syllable in i)

**Procedure :** The subjects were presented with the stimulus i) described above and asked to evaluate it in a four-degree scale. Then they heard the stimulus ii) and asked to evaluate it in the same way, besides judging if there was an improvement.

**Analysis :** I dealt only with the improvement judgement. "Pareil" was reinterpreted as 0, "bcp mieux" as 2, and accordingly.

## **3. Results**

### **3.1. Experiment 1**

Final lengthening in model's utterances : 150 - 200 %

Insufficient final lengthening in the learners' utterances, but not with all the subjects, in all the sentences

Tendency towards insufficient lengthening in sentences ending with a polysyllabic word

### 3.2. Experiment 2

No remarkable final lengthening : less than 150 % in most cases

### 3.3. Experiment 3

Improvement perceived in some of the cases, but not in all

## 4. Discussion

Accentuation in Japanese (Tokyo dialect)

Loan words or unknown words : by default, put the nucleus on the ante-penultimate mora ;

/verite/ -> /be'rite/ (f01), /pa/ -> /pa/ (f12), /pø/ -> /pu/ (f17), /pari/ -> /pa'ri/ (f22), /kry/ -> /kurju/ (f25), /vwa/ -> /buwa/ ou /bowa/ (f28), /boku/ -> /bo'ku/ (f30), /tablo/ -> /ta'buro(o)/ (f31), /frãse/ -> /hura' se/ (f32), /pøti/ -> /pu'ti/ (f40)

Absence of lengthening after the "nucleus" 森(2000)

## 5. Conclusion

Insufficient final lengthening can be observed clearly when the final word is polysyllabic.

Other factors to consider :

Fluctuation, fall in particular, of F0

Longer final words

Syllable balance ---demonstration "voici une fille"

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