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Meaningful Pronunciation: Balance in the Japanese University EVF Classroom

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Communicating meaning is the main function of language. Yet pronunciation classes often focus on producing segmentals with minimal discourse-level exchange of information. Thus, classes may become tedious or seem meaningless to students who instinctively understand that language is for communication. At the University of Aizu, electronic visual feedback (EVF) is used to improve Japanese pronunciation of segmentals. This method is both helpful and engaging to computer science students. However, it is limited both in meaningful exchange and in the length of utterances that can be analyzed (three seconds). This paper presents pertinent, personal, authentic, and meaningful dialogs, pair-work, and presentation techniques to supplement and provide meaningful balance to pronunciation courses. The material richly incorporates and focuses on a variety of segmentals and some suprasegmentals, and it has been used and well evaluated for three years.

言語の主な目的や働きはコミュニケーションです。それなのに、発音の授業はよく子音と母音一つ一つを重んじ、意味のあるコミュニケーションを無視しています。だから、言語の自然な働きを知っている生徒にとって、授業は退屈で意味のないものになってしまう傾向があります。会津大学では音声解析システムを使って日本人の生徒の子音と母音の発音を良くしようとしています。この方法はコンピュータ科学の生徒に役に立つし、彼らはコンピューターのことに夢中になります。しかし、この方法は三秒以下の長さの表現しか解析できないし、意味のある本当のコミュニケーションもできません。この論文は、生徒にとって実用的で、身近で、現実的な意味がある会話やペアワークや教え方を紹介します。この教材を作った目的は普通の発音の教材、または音声解析の教材と一緒に使い、（クラスの３０％位）授業をもっと意味のあるバランスの良いものにするためです。この教材は、日本人にとって難しい音を沢山含んでおり、三年間使われ、生徒達に高く評価されています。

Generally speaking, communicating meaning is the main purpose of language. Webster's New World College Dictionary (2001) defines language as "a system of vocal sounds …to which *meaning* is attributed, used for *communication* of thoughts and feelings" (p. 805). We speak and write to

communicate meaning from within, and we listen and read to acquire meaning from without. Yet pronunciation courses often focus on the production or the decoding of individual phonemes (Lambacher, 1999), or even rhythm, stress and intonation (Wong, 1987) with minimal discourse-level exchange of meaning.

In typical courses that focus on phonemes, students may be given instruction as to how to move their tongue or lips to produce a certain sound, and they may repeat or practice certain words in order to develop the muscular coordination to be able to produce that sound correctly at will. An advanced form of such training is Electronic Visual Feedback (EVF) (Anderson-Hsieh, 1992), which has been described by Lambacher (2002). EVF uses computer software to produce spectrograms, pictures of sound patterns painted on axes of frequency (Hz) versus time. Spectrographic analysis provides visual feedback, which allows learners to "see" their own pronunciation rather than having to rely solely on a native-speaking teacher's ear to tell whether or not their pronunciation is correct. Learners can then associate what they see with their own articulator movements. Molholt (1988, 1990), for example, worked with Chinese teaching assistants and found EVF effective in improving English pronunciation. De Bot (1983) found that using visual pitch contour displays along with audio feedback resulted in more repetition and mistake-correction effort by Dutch learners of English than audio feedback alone did. Pennington (1999) summarizes the benefits of computer-aided pronunciation (CAP) stating that it is "quick, repeatable, precise, reliable, authoritative, highly salient, multi-modal, individual, (and) variable" (p. 430).

At the University of Aizu, a university for computer science and engineering, a pronunciation course that uses EVF for instruction has been developed and taught since 1993 (Murakawa, 2000) to sophomores (about 30 students per class). While various researchers have used EVF to teach intonation (Anderson-Hsieh, 1992; Goh, 1993, Spaai & Hermes, 1993), this course only touches on loudness, stress, and intonation, but focuses on the consonantal phonemes p, t, k, b, d, g, r, s, sh, z, th, f, and v, as well as four vowel sounds. The professor can record a short message (a word or phrase), show the spectrogram (which also includes intonation and loudness patterns), explain the important aspects of the spectrogram, and send it to students. Students can receive the message, play it back, and view and analyze the spectrogram with respect to time, frequency, duration, stress and/or intonation for themselves on their monitors. Furthermore, they can record themselves and show their own spectrograms and compare them to the professor's, as the interface has a split panel that enables students to see two spectrograms at once. They can record and compare repeatedly, and with the visual feedback, eventually their spectrographic patterns often come to resemble the professor's. The software also contains files of computer-related words and their spectrograms so students can practice by themselves, even without a professor's model. While students generally evaluate the course favorably and many students can demonstrate measurable improvement (initial p, t, or k sounds of 100ms, for example, rather than the typical Japanese 40-50ms), three limitations of EVF are quite clear:

- There is the danger of overuse. Students can get absorbed in manipulating the software and analysis and not actually practice.
- The EVF software can only analyze short utterances (up to 3 sec.)
- EVF does not encourage meaningful exchange of information.

As a result of these limitations, EVF, though certainly engaging to the students, can become tedious or "meaningless" to students who instinctively understand that language is for the communication of meaning. How can pronunciation teachers, especially (but not only) EVF instructors, keep interest and meaning in their classes?

This paper presents and discusses material that was developed to supplement and provide meaningful balance for the EVF pronunciation course at the University of Aizu at the ratio of about 30% of class time (20 to 30 minutes in a 90-minute class). The material, which is not specifically EVF in nature as it does not require computers and can be used in any classroom, increases student awareness of the meaning that pronunciation carries. It also contains dialogs that pertain to the lives of college students or that apply to this university, the nation of Japan, or cultural differences, all of which are far too long to be used in EVF, for which length of utterances must be limited. In addition, it includes referential conversation questions (Long & Sato, 1983) that allow students to genuinely communicate in pairs on topics that will be rich in the phonemes being practiced. Students must apply their pronunciation at the discourse level. Thus, this material addresses and compensates for the EVF limitations listed above.

The Material

Space in this article does not allow the inclusion of the entire set of notes used in the pronunciation course, but the material in available on-line at the following website:

http://www.u-aizu.ac.jp/~kenc/pronun.html

In the discussion below samples from the material will be presented and particular points of interest will be described.

Week 2 (Stress)

In the basic curriculum, students chant the alphabet to practice speaking loudly and clearly and to practice the majority of English phonemes initially. However, in the supplemented curriculum, after going through the alphabet once or twice, students practice the following imaginary sentences with stress on the bolded letter:

ABC**D.** EFGHI**J**. **K**LMN. O**P**QR. ST**U**V. WXY**Z**.

The first, second, and last sentences are typical English stress patterns, while the rest are peculiar to specific situations. One specific situation is the common confusion of *where* and *when,* which sound very similar.

A: Where is the **class**? (normal)
B: It starts at 1:10.
A: **Where** is the class?
B: Oh. It's in LML 1. (the name of the classroom at this university)

A baby taking dubious first steps is an example of stressing the normally reduced *can*.

A: Can he **do** it? (normal)
B: He **can** do it! He really can.

The students also really **can** make good progress in pronunciation using EVF. This class is usually ended by thanking the students

for their active participation, to which they would normally reply *iie, kochira koso* in Japanese. But how does one translate that into English? The students are usually perplexed. The answer is *Thank* ***you***. There is no good word-for-word translation in this case because stress and intonation carry the meaning.

Weeks 3, 4 and 5 (p-, t-, k-) (phonemes in focus are bolded)

Here the most popular food among American college students is discussed – **p**izza, with **p**ineapple, **p**epperoni, and green **p**eppers. One student reported actually having a pizza party with a Canadian who brought a pizza with precisely those toppings! We also discuss vacation **t**rips to **C**airo or **P**aris. Most students prefer Paris and the Eiffel **T**ower to Cairo and the **P**yramids. Students also discuss a favorite food among themselves – **c**urry. Po**t**atoes and **c**arrots are popular ingredients, but green **p**eas and **c**abbage are not. Most students can also **t**ell about a recent **t**ime they had curry.

Week 6 (b-, d-, g-)

The distinction between minimal pairs such as *bag* and *back, pass* and *bass*, and *curl* and *girl*, and *lift* and *lived* are situationalized as in the following:

A: Did you have a good weekend?
B: Yes, I caught a bass/pass for the first time.
A: Oh, you went fishing/played football?

Weeks 6-10 (various kinds of r)

The purpose of education becomes the topic here. Ultimately it is to learn to **r**ead, **wr**ite, and **r**eason, and to **r**ealize and **r**each one's potential. Then, an example of a Japanese sports hero, Naoko Takahashi, is provided as an example of someone who reached her potential (though perhaps not through education). How did she train for the Sydney Olympics, in which she won the gold medal in the marathon? The truth is that (every day) she **r**an a **r**ough **r**oute in the **R**ockies.

The cultural differences related to **gr**een ice **cr**eam (r clusters) are also discussed. In Japan, green ice cream is green tea flavored, while in America it is mint or pistachio. Students discuss their experiences or preferences.

Week 12 (th)

Students at this university must write a graduation **th**esis in English. In a dialog, students talk about a **th**eoretical, **th**orough and **th**ought-provoking thesis. While this is not an open-ended dialog, it certainly is pertinent to them.

Week 13 (s, sh, especially si)

Here a prize-winning cartoon from the Daily Yomiuri yearly contest is presented and discussed. Nobuo Onuki's "Heisei Cinderella" has run away from the ballroom leaving her platform shoe and her portable phone behind, instead of her glass slipper. Students practice a dialog and then discuss what they would do to find **Ci**nderella if they were in that **si**tuation.

Week 14 (f, v)

Since the University of Aizu is a computer science university, a dialog in this unit focuses on computer **v**iruses that are destruct**iv**e and potentially de**v**astating. Another dialog concerns the many **f**oreign pro**f**essors and **f**aculty who are **f**amous in their **f**ields. Again, these dialogs are not particularly communicative in that they are not open-ended, but they are pertinent to the students, and the dialogs bring pronunciation to the discourse level, rather than leaving it at the "meaningless" phoneme or single-word level.

Conclusion

The material presented here and at the website cited earlier is designed to supplement pronunciation courses such as EVF courses which otherwise focus on segmentals (phonemes) and word-level pronunciation. It addresses weaknesses specific to but not limited to EVF by bringing meaning, discourse, pertinence, authenticity, and enjoyable communication into the pronunciation classroom, which can tend to be tedious and "meaningless". It is based on the premise that communicating meaning is the major purpose of language, and thus, meaningful communication should exist in the classroom. The material presented here is only part of what is at the website. All of the material together is designed to take 20-30 minutes per lesson. This material has been used for more than three years, and has been evaluated very highly by students. The eight classes for which the material was used received average student evaluations of 4.46 out of 5 (5 being *agree strongly*) with respect to the statement "Overall, this was a good class." Beyond this, effectiveness cannot be evaluated yet as EVF systems able to handle discourse have not yet been developed.

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