Feed-back and feed-forward mechanisms in L2 pronunciation training: Evidence from a repetition paradigm

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In the absence of explicit feedback from an external source (e.g. from a teacher, a native interlocutor, a computer-assisted pronunciation training system, etc.), the L2 learner has to rely on his self-monitoring resources to achieve an appropriate pronunciation of his L2 speech productions.

In this talk, we elaborate on specific results from a recent study (Delvaux et al., 2013) concerning the acquisition of long-VOT initial stops by French native speakers undergoing production training. During training, 14 francophone speakers were asked to repeat "as faithfully as possible"/ta/ stimuli varying in VOT (by 10-ms steps from 20ms to 100ms) and were given no feedback on their performances. Of interest here is that, although stimuli were presented (thus reproduced) one at a time, the order of presentation of the successive stimuli was manipulated, so that each serie of 9 stimuli was presented first in ascending order (i.e. from 20ms-VOT to 100ms-VOT), then in descending order (i.e. from 100ms-VOT to 20ms-VOT), then in pseudo-random order. (After each order serie, the 20-ms VOT stimulus was presented six times in a row, in order to avoid contamination effects from the preceding serie.)

Statistical analysis revealed a significant effect of the order of presentation on the VOT values produced by the participants. When the stimuli were presented in random order, the Belgian French speakers were less efficient in matching their responses to the stimuli in terms of VOT (see the flatter slope of the ‘Random’ line in Fig.1). Moreover, VOT in responses was consistantly longer when stimuli were presented in descending order when compared to ascending order. Thus, starting the presentation with stimuli of long VOT vs. short VOT respectively favored longer vs. shorter VOT responses throughout the whole continuum.

Based on these results, we will discuss at the workshop the role of auditory feedback in L2 pronunciation in relation with the forward models used in the self-, other-, and joint monitoring processes involved in spoken interactions (Gambi & Pickering, 2013; Pickering & Garrod, 2014).

References

Fig.1. ResponseVOT as a function of StimulusVOT across Order of presentation