

論文の英文要旨	
論文題目	Production and Perception of L2 Russian Voiceless Coronal Obstruents in Japanese Native Speakers
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This research focuses on Second language production and perception of L2 Russian voiceless coronal obstruents, namely /t, ts, tɕ, s, sʲ, ɕ, ʂ/. The primary aim of the study is to understand the key characteristics of the production and perception of L2 Russian voiceless coronal obstruents in Japanese native speakers. The secondary aim is to analyse their *confusion* mechanism through cross-linguistic comparison. The term "confusion" in this paper refers to the phenomenon where a certain phoneme is not properly distinguished from a different one. In former studies of L2 Russian, voiceless coronal obstruents have not been systematically investigated. The current study focuses on this gap and observes and analyses the confusion among the voiceless coronal obstruent phonemes in L2 Russian from three perspectives: linguistic structure, acoustic phonetics and phonological perception.

The area of L2 Russian voiceless coronal obstruents has not been systematically investigated in spite of the fact that its acquisition poses several difficulties on L2 Russian learners with L1 Japanese. The difficulties originate from the fact that the Japanese language system does not have the distinction between several phonemes which does exist in the Russian language system.

The study begins with the review of the phonological interpretation in former studies. Based on these interpretations, the contrastive analysis of the phonological system and allophones between L1 Russian and L1 Japanese is conducted. The analysis is followed by the prediction of the confusion among the voiceless coronal obstruents in L2 Russian, and a possible limitation of the prediction. The prediction in the current study is as follows: (A) confusion between /tj/ and /tɕ/ in perception, (B) substitution of /sʲ, ɕ, ɕ/ in production with different phonemes which have similar acoustic characteristics to those of L1 Japanese [ɕ], (C) confusion of /sʲ/ with /ɕ/ and /ɕ/ with /ɕ/, both in production and perception, (D) high successful discrimination rates for /s/ and /ɕ/, which exist in Japanese as allophones [s] and [ɕ], (E) equal perceptual distance between the /sʲ, ɕ, ɕ/, and (F) confusion between /s/ and /sʲ/ both in production and perception due to the fact that these two are opposed in their [±sharp] value which is not used in Japanese phonological system.

In Chapter 3, the important acoustic features of L2 Russian were described and discussed. The discussion proceeds with three parameters: 1) duration of the consonant noise (release noise burst in case of stops or frication in case of fricatives), 2) F2 loci in the following vowel and 3) spectral characteristics of the consonant noise. In the case of stop consonants, the current study has confirmed the confusion of /tj/ and /tɕ/, which is shown in Vakhromeev (2015, 2017). In the case of fricatives, Prediction (B), confusion of /sʲ, ɕ, ɕ/ with sounds similar to [ɕ], was observed in one participant. However, the most frequent error pattern was confusion of /ɕ/ and /ɕ/. Confusion of /sʲ/ and /ɕ/ was observed in two participants. /sʲ/ and /ɕ/ confusion was observed in one participant. The prediction concerning the fricative production in Prediction (B) was generally supported. However, the contrastive analysis has failed to predict the variation among

different participants in the confusion among /sⁱ, ɛ, ʒ/.

In Chapter 4, the perception of voiceless coronal obstruent (same/different decision and reaction time) by the Russian native speakers and that by Japanese native speakers are compared. The perceptual experiment was conducted to examine the perceptual distance between the phonemes within the stop and fricative classes. The study has shown that /tɛ, tⁱ/ and /ʒ, ɛ/ phoneme pairs are the most frequently confused, or perceived to be the most similar, in L2 perception. Therefore Prediction (A) is supported. The phonemes /ʒ, ɛ, sⁱ/ have shown unequal perceptual distances, which does not support Prediction (E). Additionally, the distance between /s/ and /sⁱ/ is found to be relatively close.

In Chapter 5, the conclusions concerning the confusion in L2 production (Ch.3) and perception (Ch.4) are integrated and discussed from the viewpoint of similarity and difference between the results discussed in the two chapters. It was concluded that the predictions considering /tⁱ, tɛ/ and /ɛ, ʒ/ pairs are fully supported. However, some confusion problems were not predicted correctly. Firstly, prediction (C) is not supported. The confusion of /ʒ, ɛ, sⁱ/ was found in case of the production, but not in the perception. Secondly, /ɛ, ʒ/ were confused in L2 perception but /sⁱ, ɛ/, /ʒ, sⁱ/, and /ɛ, sⁱ/ pairs were not.

In Chapter 6, two linguistic models are discussed. The first model is the Perceptual Assimilation Model (PAM). PAM predicts the non-native phone assimilation types and the perceptual discrimination patterns connected with a certain assimilation type. It was concluded the PAM assimilation type "Single Category" is valid in case of [tɛ, tⁱ] and [ʒ, ɛ]. In addition, "Category Goodness Difference" was found to be valid to explain the [s] and [sⁱ] perceptual similarity. The second model that was discussed is the Speech Learning Model (SLM). The two

important hypotheses of the SLM were supported by the current study. The first hypothesis, "The greater the perceived dissimilarity of an L2 sound from the closest L1 sound, the more likely a new category will be formed for the L2 sound" (Flege 2005:86), is supported by the perceptual and production evidence considering the /s, ɶ/ and /si/ in fricatives and /t, ts, tɕ/ in stops. The second hypothesis, "When a category is not formed for an L2 sound because it is too similar to an L1 counterpart, the L1 and L2 categories will assimilate, leading to a "merged" L1-L2" (Flege 2005:88), is supported by the confusion of /ɶ, ɶ/ and /tɕ, tʃ/ in production and perception, where /ɶ, ɶ/ were confused with the L1 Japanese [e], and /tɕ, tʃ/ with L1 Japanese [tɕ].