

How do Danish L2 learners produce the distinction between *tai-cai-zai*?

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The phonology of Danish poses a unique challenge to Danish learners of Chinese as a second language. Similar to Chinese, Danish plosives have an aspiration/non-aspiration distinction. Particularly for Danish, though, the two alveolar plosives are not distinguished by aspiration, but by frication /t t^s/ (Basbøll 2005; Grønnum 1998). This usually does not create a problem when Danish L1 speakers learn foreign languages with only two coronal plosives; in that case the affricated plosive will simply map onto a corresponding aspirated or voiceless plosive. Chinese, however, has six different coronal stop/affricate phonemes /t t^h ts ts^h tʂ tʂ^h/. The retroflexes will not be taken into account here, as they are expected to be sufficiently dissimilar phonetically to not pose a problem. But the dentoalveolars /t t^h ts ts^h/ pose a real problem: Danish also has /t/, but /t^h ts ts^h/ are all candidates to be mapped onto Danish /t^s/, i.e. Danish learners may perceive [t^s] for all three of these phonemes. The general impression is that Danish speakers are used to mapping /t^h/ to /t^s/ when learning L2s. In addition alphabetic interference from Pinyin is likely to trigger /t^s/ for pronouncing written <t>, since Danish <t> is usually pronounced /t^s/ in onset position. Like Chinese /ts/, Danish /t^s/ is a plosive followed by frication, but the duration of the frication is much shorter and closer to that of Chinese /ts^h/. Thus neither /t^h ts ts^h/ provide a perfect phonetic mapping, and Danish learners should be equally likely to use the familiar /t^s/ for either one or more of them.

Discrimination difficulties among Danish L2 learners of Chinese /t^h ts ts^h/ were recently tested by Ne et al. (submitted). Their AXB experiment showed that, from a perception point of view, Danish L2 learners did not have significant problems distinguishing the sounds from each other. However, a follow-up study showed that /t^h ts^h/ have some perceptual overlap (Sloos et al. forthcoming). This is likely to have consequences for production, which is the focus of the present paper. By analysing recordings of Danish university students from the first, second, and third year of Chinese, the duration of aspiration and frication in /t t^h ts ts^h/ at different levels of L2 Chinese is shown. The expected results show that it takes significantly longer for the students to learn to produce the distinction between /t^h ts^h/ than to produce the other contrasts. Moreover it is expected that differentiation in production takes longer than in perception.

Keywords: Chinese language learning, Phonology, L2 phonology

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