Epenthesis in SC Onset Clusters in Persian- English Interlanguage: Linguistic and Extra-linguistic Factors

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Persian doesn't allow consonant clusters syllable-initially but does allow them syllable-finally (up to two consonants). These coda clusters exhibit varying sonority distances and even SSP violators. I investigated the perception and production of English /s/ + onset consonant clusters (sC) by Persian speakers. In particular, I examined the linguistic and extra-linguistic factors that condition the perception and production of sC clusters in the interlanguage of Persian speakers. When Persian learners of English are faced with the sC onset sequences, they have a tendency to apply e- epenthesis (e.g., Karimi, 1987; Yarmohammadi, 1995). I examined Markedness (Eckman, 1977) and Redeployment (Archibald, 2005) to determine which would more accurately account for the Persian speakers' behavior. The hypothesis based on onset markedness was that Persian learners will perceive and produce /sl/ better than /sn/, and then /st/. This is because in English /st/ violates the universal pattern of sonority and is more marked than /sn/ and /sl/ (following Cardoso et al, 2007). Redeployment theory predicted no special order of development in these clusters. If Persian speakers are able to redeploy their grammatical representation of sonority differential in Persian codas into English onsets, they can acquire the clusters at the same time since all onset clusters are licensed by the L1 coda properties. I also looked at two extra-linguistic factors: proficiency and task formality. Fewer errors were expected as L2 proficiency increases. Regarding the degree of task formality, it is predicted that the frequency of e- epenthesis will be higher in less formal tasks conforming to Major's (2001) Ontogeny Phylogeny Model.

Fifteen native Persian speakers of English took both perception (identification and ABX discrimination tasks), and production tests (formal reading, and picture-based interview tasks). The results showed that participant were significantly more accurate in perception than in production (85% vs. 48%, p=. 004). These results are suggesting that although Persian speakers continue to epenthesize in L2 production, they are very accurate in perceiving L2 sC onset clusters. There was also a significant difference between the three clusters in perception (/st/=/sn/>/sl/, p=. 036) showing that /sl/ is perceived less accurately than the other two clusters. However, there was no significant difference between the clusters in production (/sl/=/sn/=/st/, p=. 368). Disconfirming markedness predictions is observed in some other studies as well, such as Cardoso (2007) who showed that perception and production of the sC clusters may have different orders (sl, sn

> st in production, and st > sl > sn in perception) and that markedness may only explain production while other factors such as input frequency may better explain perception. The extra-linguistic factor of proficiency had no significant impact on perception (p=. 170), but had a significant effect on production (p=. 008). Comparing these results to those of languages that lack any clusters (e.g. Chinese), or the Brazilian Portuguese participants in Cardoso's study who performed the perception tasks less accurately (50.9% in beginners), we can argue that Persian subjects are *redeploying* their L1 coda knowledge of SSP violating strings to their perception of L2 sC onsets. This finding is pointing to the fact that Persian ESL speakers are better at perceiving the clusters than producing them, because the clusters are present in Persian grammar and even if articulatory factors influence their accurate production, Persian ESL learners still maintain the mental ability to identify and discriminate between the /s/ and /es/ counterparts even at a beginner level (75%). Considering the fact that perception is a better window to learners' competence, the epenthesis by Persian learners cannot be interpreted as a result of consistent misperception but only as a communication strategy to enhance the intelligibility of the data (Abrahamsson, 1991). Regarding the extra-linguistic factor of task formality, there was no significant difference between the two formal and informal tasks (sentence reading and picture-based interview, p=. 116). This finding that formality is not correlated with greater accuracy disconfirms the OPM hypothesis and contradicts some previous studies such Cardoso (2007), Boudaoud & Cardoso (2009). However, it is supporting other studies such as Lin (2001) who suggested that in situations that are more formal and require more attention to form than to content, in order to make the target consonants audible, the use of epenthesis increases as a result of hypercorrection.

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