Overview: The goal of this study is to investigate the reason why certain types of mora can be deleted for the adjustment to the moraic meter in Ryuuka (琉歌), the classic Okinawan poetry written in Shuri dialect. Such morae are: (a) word-initial geminates and (b) long vowels (/ee/ and /oo/). The deletability of word-initial geminates can be explained by Steriade's (2003) P-map hypothesis because the degemination of initial-geminates makes relatively little changes in perceptibility. Long vowels /ee/ and /oo/can be shortened because the long-short contrast of these vowels is not distinctive in Shuri Okinawan.

Initial Geminates: Geminates in both word-initial position (e.g. kkwa "child") and word-medial position (e.g. ittu "first") have moraicity in Shuri Ryukyuan, and can be counted as a mora in Ryuuka. Kinjo (2012) found that while word-medial geminates are always counted as a mora, word-initial geminates are sometimes degeminated and not necessarily counted as a mora for the sake of the moraic meter in Ryuuka. This fact can be explained by Steriade's (2008) P-map hypothesis. According to the P-map, the difference between underlying form and output must be minimal in perceptibility. When it comes to the singleton-geminate distinction, the primary acoustic/perceptive correlate is a difference in constriction duration-closure duration for plosives and frication duration for fricatives. Shuri Okinawan has only voiceless plosive geminates. Since singleton-geminate distinction is disappear when they are located at a phonological phrase boundary because the silence before the release does not have any starting point. In contrast, the distinction of the singleton-geminate in closure deletion is always significant in word-medial position. Therefore, the P-map predicts that only word-initial geminates can be degeminated because the singleton-geminate contrast is smaller than word-medial geminates.

Vowel Deletion: Kinjo (2012) also reports the examples where long vowels are shortened for the adjustment to the moraic meter in Ryuuka:
(1) /mee/ "front" $\rightarrow / \mathrm{me} /$, /samuree/ "Samurai" $\rightarrow /$ samure/, /mutee/ "flourish" $\rightarrow$ /mute/
(2) /oozi/ "fan" $\rightarrow$ /ozi/, /toohu/ "tofu" $\rightarrow$ /tohu/, /zjoo/ "gate" $\rightarrow /$ zjo/

This can be understood as a natural consequence of the Shuri Okinawan phonological system. As (1) and (2) shows, shortened long vowels are limited to /e/ and /o/. Unlike $/ \mathrm{i} /$, /a/ and /u/, /e/ and /o/ almost always appear as long form in Shuri Okinawan, hence, they don't have the long-short contrast. Therefore, /ee/ and /oo/ can be freely shortened.

## References:

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