ABSTRACT

PETER ANDREWS. A description of the Natqgu vowel system using ultrasound. (Under the direction of Dr. Jeff Mielke.)

The vowel system of Natqgu, an Oceanic language of the Solomon Islands, has two pairs of vowels that are described as being non-front rounded vowels at the same height (/ʉ/ and /u/, /ɞ/ and /ɔ/.) These represent potential counterexamples to phonological feature proposals such as that advanced by Duanmu (2016) which maintains that there are only two degrees of backness and therefore that non-front vowels must be distinguished by some feature other than backness. The lower of the two vowels in question has been described as sounding rhotic. Rhoticity is interesting because it is cross-linguistically rare among vowels, and additionally it could potentially distinguish /ɞ/ from its back counterpart. This study uses acoustic and articulatory methods to investigate the status of these central rounded vowels relative to their back counterparts as well as the reported rhotic quality of /ɞ/. Ultrasound and audio recordings were made of a native Natqgu speaker reading a wordlist containing all ten of Natqgu’s oral vowels in several phonological contexts The results indicated that the vowels described as central showed the same tongue advancement as the front vowels rather than the degree of advancement of the central vowel /ə/. Provided that this speaker is representative of the Natqgu-speaking community, a new transcription of /y/ and /œ/ is suggested for /ʉ/ and /u/, respectively. No acoustic or articulatory indicators of rhoticity were observed for /ɞ/. This study contributes to the documentation of Natqgu language and provides evidence that the Natqgu vowel system is not a counterexample to the claim that vowel systems can involve only two degrees of backness.