

Variation in Scottish /r/ in child speech The production of Scottish English /r/ has been known to be variable for a long time ranging from (rare) trills, to apical taps and postalveolar, retroflex and bunched, approximants (Johnston 1997). The production of Scottish /r/ has also demonstrably changed at least since the late 19th century. On the one hand, there has been a general shift from taps to approximants; on the other, and especially in populous Central Scotland stretching from Edinburgh to Glasgow, there has been a phonotactically, and socially-constrained process affecting coda /r/. This involves lenition to auditorily 'weak', pharyngealized/uvularized variants with delayed tongue-tip-raising gestures in working-class speech, alongside fortition to auditorily strong, bunched /r/ in middle-class speech (Stuart-Smith/Lawson 2017). Most research on Scottish /r/ has focussed on adult, or adolescent, speech though the first study reporting 'r-lessness' was on 24 Edinburgh 6-10 year-old children (Romaine 1978), and Scobbie et al (2015) report allophonic onset/coda tongue-shape variation in 53 Scottish 6-10 year-old children. Questions remain as to the current distribution of allophonic variants for Scottish /r/ in child speech, with respect to: onset/coda position; Scottish dialect region; child gender; and children's development as they progress through elementary school. This paper reports the results of an auditory analysis of /r/ from children recorded for the Variability in Child Speech (VariCS) project, whose goals are to describe variability in typical child speech development and to establish reference acoustic measures across speech subsystems, including articulation. The children were recorded four times at six-monthly intervals. Here we focus on Sweep 1, recorded from 275 children (147 female), aged 5;0-11;0, in three age groups. The recordings were made using a unidirectional head-mounted Shure SM25 microphone in 23 schools across seven Scottish councils, representing urban and rural areas across central and southern Scotland. Productions of /r/ occurred in the following words: *ring, bridge, car, spider, helicopter, scissors*, drawn from two tasks, a bespoke picture-elicitation word-naming task, produced three times by each child, and a standardised articulatory and phonology screening test (Dodd et al 2002). After analysing auditory results by phonological context, speaker gender and age, and dialect region, we interpret our findings in the context of existing studies of Scottish /r/, and in particular considering the role of children in the possible trajectories of previously-observed sound changes in progress.

References Dodd, B., Zhu, H., Crosbie, S., Holm, A., &

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Jane Stuart-Smith¹, Eleanor Lawson², Lucy Gibson², Mridhula Murali², Amy Smith², Lauren Taylor², Joanne Cleland², Anja Kuschmann²

¹University of Glasgow, Glasgow, United Kingdom. ²University of Strathclyde, Glasgow, United Kingdom

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