Infants’ early words are phonologically similar (Vihman, 2016). Deuchar and Quay (2000) show that 13/20 of a bilingual (English-Spanish) child’s first words are produced with a CV structure, and many are identical: car, clock, casa ‘house’ and cat are produced as /kæ/, and papa ‘daddy’, pájaro ‘bird’ and panda as /pa/. Network analysis can account for similarity in early phonological acquisition (Fourtassi et al., 2020; Siew & Vitevitch, 2020), whereby similarity between forms determines their connectivity within a network. This approach draws on two possible models: preferential attachment (PAT; new words resemble the most well-connected forms in the existing network) and preferential acquisition (PAQ; new words attach to multiple similar forms). These existing studies test networks of target forms, generating mixed results; it may thus be more revealing to analyse networks of infants’ actual productions (i.e. target car /kɑɹ/ ~ clock /klɑk/ ~ cat /kæt/ versus actual /kæ/ ~ /kæ/ ~ /kæ/). I propose that PAT offers a more plausible model for phonological development of actual forms, given that infants tend to adapt early words to fit established production routines (Vihman, 2019).

In this talk, I use network analysis to observe the connectivity between 9 French- and English-learning infants’ target and actual word productions. I analyze word production between 0;11 to 2;6, accounting for phonological distance between each actual form and i) the target form (e.g. clock, /kæ/ vs. /klɑk/) and ii) all other words produced by the child (cat /kæ/ vs. dog /dæ/). Results show that PAT is a better predictor of lexical acquisition (p<.001, both target and actual forms). Furthermore, actual forms provided a better fit to this model than target forms (β= -.22, p<.001); infants’ actual forms provide stronger evidence of systematicity than we would expect from analysis of targets alone.