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The status of planets: development and transmission of Philadelphia short-a

This sociolinguistic study of preschool-aged children and their parents addresses the questions and predictions posed in the literature on the Philadelphia short-a tensing pattern. Specifically, these include providing the present status of tensing environments previously identified as changes in progress, taking a more detailed look at transmission by studying four preschool peers and their parents, and quantitatively exploring the degree of children's tensing and its impact on comparing adults' and children's speech.

Based on findings by Labov (1989) and Roberts and Labov (1995), the projected results for 2008 in South Philadelphia would be increased tensing both before /l/ and before intervocalic nasals. Surprisingly, however, while the environment before /l/ has indeed progressed in tensing, the environment for intervocalic nasals has not (Fig. 1). Tensing before intervocalic nasals has peaked at one word: *planet* (Fig 2). Figure 1 (for which *planet* is excluded) and Figure 2 combined show that *planet* was not the leading edge of diffusion. Its crystallization halted advancement in the environment before intervocalic nasals rather than opening the gate to diffusion as in the case of preceding /l/, revealing a split that a theory of change must account for.

Roberts and Labov (1995) first asked how children acquire variables undergoing change in progress and found that overall children accurately acquire the short-a pattern by preschool age. T-tests on the quantitatively-measured formant data from the three families (Alex 4;4 and mother Angela, Corina 4;11 and mother Cristina, Delilah 4;4, brother Daniel 3;3 and parents Diana and David) proved that the four children in this study indeed acquired the two short-a phonemes and overall matched their parents' patterns. Each of the three families' distributions of short-a are distinct, however, and therefore a complex picture of the acquisition of changing variables emerges (Fig 3). For the change in progress in tensing before /l/, the child acquired full tensing if the parent fully tensed, the child acquired variable or categorical tensing if the parent tensed variably, and the child acquired variable tensing if the parent did not tense at all in that environment. The youngest child, Daniel (3;3), offers a clear case of overregularization: he acquired the tense/lax distinction but has not yet learned the morphological distinction between the lax verb in *I can* versus the tensed noun in *tin can*, incorrectly producing both as tensed. Yet while Daniel and Corina (4;11) acquired more tensing before /l/ than their parents, a form of overregularization in the direction of the community norm found in the preschool and the surrounding South Philadelphia region, Delilah (4;4) acquired her mother's variable tensing. These results raise questions about both the nature and scope of overregularization as well as the age at which the social force of speech communities can influence individuals to increment changes.

While the children have acquired a perceptible tense/lax phonemic distinction, results from a Neary normalization of the children's and mothers' data support the claim that children's productions are less focused than adults. As a group, the children are higher/fronter for tensed short-a and lower/backer for lax. T-tests confirm that the children's and mothers' grouped formants are significantly different at $p<.01$ for F1 and F2 of lax and tensed short-a, even after normalization. Thus, as the children are learning the complex pattern of what to tense they are also learning the degree of tensing, showing parallel behavior in overregularization and target overshoot. In conclusion, this study brings new data to bear on our understanding on the current status of the short-a pattern in South Philadelphia, the transmission of changing linguistic variables, and quantitative methodologies for comparing children's and adults' speech.

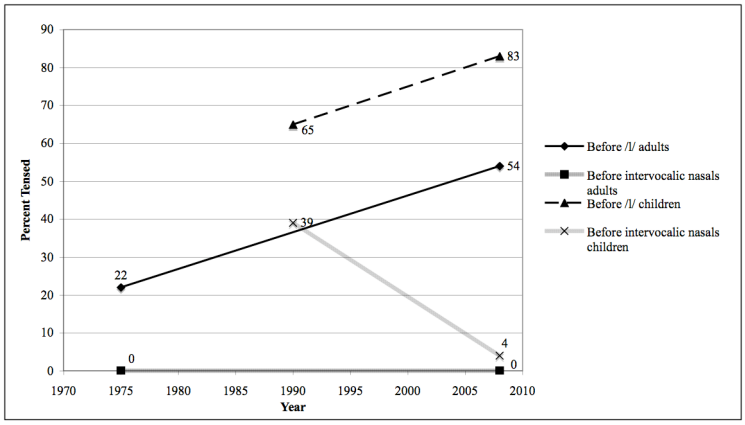

Figure 1. Short-a tensing before /l/ and before intervocalic nasals over time

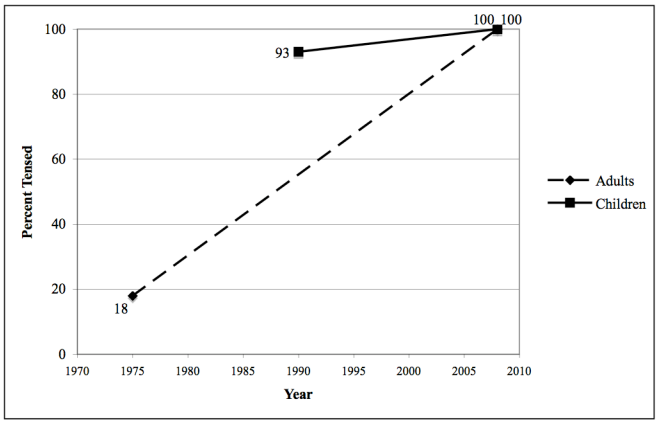

Figure 2. Tensing of *planet* over time

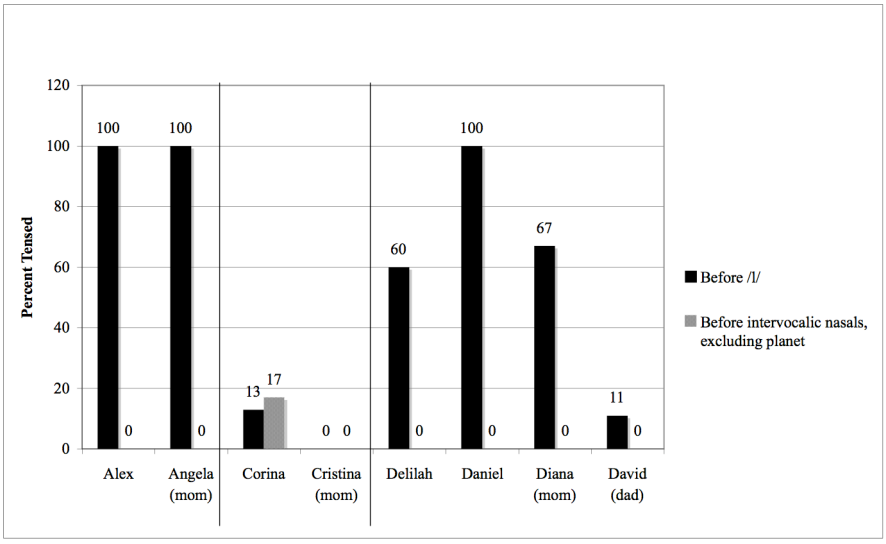

Figure 3. Percent tensed short-a for children and parents

References

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