*Are You Paying Attention? The Cognitive Costs of Speech Perception Adaptation*

*Abstract*

Spoken language is highly variable despite being one of the most prevalent forms of daily human communication. However, listeners often understand newly encountered talkers when hearing them speak in a shared language for the very first time. Here we investigate how attention mediates a listener’s ability to perceive a talker’s speech through a novel dual-talker paradigm. If the malleability of a listener’s speech perception is contingent on the allocation of attentional resources, then listeners should learn a talker’s speech patterns if and only if the listener is directing their attention towards that talker’s verbal stream. In the first portion of this experiment, participants were exposed to simultaneous verbal streams produced by two distinct simulated talkers who produced contrasting pronunciation variants. Participants were instructed to direct their attention towards one of these talkers, and report if they heard a word or a nonword in a series of lexical recognition tasks. In the second portion of the experiment, we gauged listeners’ perception of both talkers’ production variants through a set of lexical discrimination tasks. Unexpectedly, we found a lack of significant learning of either talkers’ speech, suggesting our paradigm inhibited perceptual recalibration towards both talkers. Potential explanations for this result are discussed further.

*Keywords:* speech perception, perceptual adaptation, attentional resources, cognitive load

*Word count: 202 (maximum: 250)*

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*Introduction*

Language is primarily a social tool. For most, spoken language plays a critical role in our ability to communicate throughout our daily lives.

[Maybe cite a few points here about acquisition, L2 learning, social conformity, and ingroup signaling? → follow reasons for variability with an explanation of the necessity for flexible models and the utility of expectations. Then proceed starting at the third sentence in draft about automaticity and conscious effort. This will establish a stronger niche in the existing lit. + also bridge well with my PhD project proposal(s)!!]

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*Notes:*

*I want to expand on the analyses performed on the collected data, I think I can do better and I have all the raw data. Maybe some post-hoc analyses related to fig. 11. I Also* ***need*** *to expand on the discussion: suggest replicating the experiment with a different phonetic cue per Chigusa’s suggestion (fricative energy judgement is easily attributed to noise) + potential modifications to the paradigm (maybe adding s/sh ambiguous words during exposure?). This may also hold implications for the perceived utility of cues and how that information is stored… ← also related to what I’d like to do for my PhD; would be nice to tie the two together with a proposal for a set of experiments*