



Commentary

The many facets of speech production and its complex effects on phonological processing

Tania SZamuner^{1*}, H. HennyYeung² and MyriamDucos¹

¹Department of Linguistics, University of Ottawa, ON, Canada

²Department of Linguistics, Simon Fraser University,

2 3

In our commentary, we discuss two additional points about developmental speech production. First, we suggest that more precision is needed to accurately describe 'speech production' processes, and we suggest that hierarchical constructs from the adult literatures on articulatory phonology and speech motor control may be applicable to infants as well. Second, we discuss the implications from data that indicate that the effects of production are subject to task-, attentional-, linguistic-, and experience-related demands.

6 5

Vihman (this issue) provides a novel perspective on phonological and lexical development, bringing together the fields of infant speech perception and early word production. In her article, she draws from a variety of fields including attention and memory, face discrimination, self-action, and motor development which highlights the complexity of language learning, a task where multiple sources of information need to be integrated

incoming auditory signal will not yet have firmly established links to corresponding motor commands. However, if the speech stream contains sounds that young children have previously produced or acquired in production, links between the incoming auditory signal and motor commands would already be established, and the processing of the auditory signal would reflect a more advanced stage of processing, perhaps engaging higher-level encoding of the auditory signal (McAllister Byun & Tessier, in press). While such models are speculative, future work along these lines may help us understand why production sometimes facilitates, and sometimes impairs phonological processing.

Conclusions

In order to more accurately describe early speech production and its effects on phonological processing in early development, we must take a closer look not only at the physical changes undergone over the first years of life, but also at motor parameters of speech production on multiple levels. Moreover, some research shows that the benefits of production on perception are not systematic: depending on various factors, production effects can be interrupted, and even reversed, if speakers (both children and adults) do not benefit from enough prior perceptual experience.

References



UNCORRECTED PROOF