Relations between syllable constituent identification and sentence perception for 212 hearing-aid users with age-related hearing loss.

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Abstract: Previous work based on initial results, prior to extensive training, on subsets of 59 and 57 of the present set of 212 has been published (Miller, J. D *et al*., 2017) or submitted to JASA (Miller, JD *et al.,* Provisionally Accepted). Here data will be presented based on 212 hearing-aid users tested after initial familiarization to the procedures, tested again after extensive training on these tasks, and tested again for retention after a three-month hiatus in training. The relations described in our earlier papers between syllable constituent identification in quiet and noise are confirmed in the larger data set. Indeed, training does not seem to change this relation but does lead some to improve performance in both quiet and in noise while maintaining the same relation between the two. Poor resolution of syllable constituents in noise is related to relatively poor resolution of syllable constituents in quiet. This implies improvements in constituent identification quiet will lead to improvements in constituent identification in noise. We have also developed a model allows description of listener's performance on a sentence task, the SPATS sentence task, in terms of each listener's abilities to identify syllable constituents and to use two kinds of context, situational context and speech-inherent context. Improvements in performance on the sentence task appears be associated with improvements in these three skills. Individual differences in these three skills appear to be very large and deserve attention. Possible implications hearing-aid fitting and speech-perception testing will be discussed. **End of Abstract**

Podium Only