

Sentence processing and aging

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Over the last century, the average human lifespan has nearly doubled, rendering the effects of aging on cognition, including language, a vital research topic. Yet the study of the developmental trajectory of language processing has largely focused on comparing linguistic abilities between children and young adults, and has for the most part ignored changes between early adulthood into old age. This holds especially for sentence processing, which has received even less attention than word processing. This is despite the fact that examining changes in language processing during aging, and what underlies those changes, may also open windows into the neurocognitive underpinnings of language processing more generally.

In this talk I will present research on sentence-level processing across the lifespan, with a particular focus on the computation of dependencies between sentence constituents, as is found, for example, during agreement computation and pronoun resolution. This work suggests that syntactic processing can remain largely immune to aging, but that declines typically occur when the involved processes depend importantly on other cognitive functions that are themselves affected by aging. In particular, when grammatical processing depends strongly on working memory or processing speed, it appears to show weaknesses in the elderly as compared to younger adults. On the flipside, some recent work suggests the potential for improvements with increasing age, likely as a consequence of lifelong exposure.

In conclusion, I will suggest that age differences in sentence processing may be at least partly explained by age-related changes in other aspects of cognition.