

Normative data on the execution age of action-related sentences in young and older adults

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Abstract

The enactment effect is a well-known mnemonic phenomenon that reflects better memory for action-related sentences when participants physically perform the described action compared to when these sentences are processed only at a verbal level, without enactment. To study this effect, it is essential to have appropriate materials that allow for manipulation and control by the experimenter. The aim of the present study was to obtain normative data on the subjective age of execution of action-related sentences in two population groups: young adults and individuals over 60 years old. A total of 536 action-related sentences from the study by Díez-Álamo et al. (2019) were used. Participants were asked to indicate the age at which they believed they had performed the action described in each sentence (e.g., “bite an apple”). The analyses revealed that participants over 60 years old assigned a later execution age ($M=9.37$) than university students ($M=6.28$). Additionally, correlational analyses were conducted with other sentence dimensions such as familiarity, emotionality, motor activity, memorability, and vividness. The results showed correlations in both groups between execution age and the dimensions of familiarity, motor activity, memorability, and vividness. Specifically, sentences with an earlier execution age were perceived as more familiar, more memorable, more vivid, and associated with lower motor activity. Emotionality showed a significant relationship in the group over 60 years old, indicating that this factor plays a relevant role in the perceived execution age of actions in this population. These normative data constitute a valuable resource for studying how actions affect cognition, particularly action-event memory, from the perspective of embodied cognition theory.

Keywords

Enactment-effect, embodied-cognition, action-related-sentences, execution-age

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