The power of action and knowledge in episodic memory for school-aged children

av

Farzaneh Badinlou

Akademisk avhandling

Avhandling för filosofie doktorsexamen i psykologi, som kommer att föras offentligt
V24 den 15 juni 2018 kl. 13.15,
L3, L-huset, Örebro universitet, Örebro

Opponent: Professor Agneta Herlitz
Karolinska Institutet, institutionen för klinisk neurovetenskap,
psykologi
Stockholm, Sverige

Örebro universitet
Institutionen för juridik, psykologi och social arbete
70182 ÖREBRO
Abstract

Developmental and cognitive research suggests that there are age-related differences in children’s episodic memory across school ages due to the development of knowledge, which in turn affects memory strategy use and information processing over time. However, there are controversial findings related to developmental patterns and factors involved in children’s episodic memory function.

This dissertation studies action memory, a form of episodic memory, across school ages to explore developmental differences and children’s memory performance as related to different encoding conditions, retrieval modes, materials, and events. In study I, the effects of different encoding conditions (i.e., verbal tasks, VTs; experimenter-performed tasks, EPTs; and subject-performed tasks, SPTs) and memory tests (i.e., recall and recognition) were examined across school ages. This study found that the developmental pattern of action memory was more pronounced for enacted encoding than verbal encoding, the most pronounced in recall test than in recognition test. In study II, the recall period of enactment effects and the effects of task difficulty were investigated as functions of age and encoding conditions in school-aged children. The results revealed that enacted encoding not only outperformed verbal encoding but also that the response speed increased over the recall period, the effect being more noticeable in older than younger children. Moreover, the level of task difficulty can be regarded as an important factor affecting the pattern of memory output among school-aged children. Study III explored the effect of children’s declarative knowledge on memory performance by presenting knowledge-based cues such as objects and semantic integration items. Providing cues related to children’s prior knowledge in the encoding and test phases improved memory performance, especially in older children. The overall results indicated clear-cut developmental differences in episodic memory across school ages. Episodic memory functions differed as functions of age, encoding, testing instructions, and type of event. SPTs and EPTs can improve memory function, this improvement was more pronounced in SPTs than in EPTs. The positive impact of action memory on memory performance is discussed in terms of the cognitive mechanism, memory strategies, and information processing involved.

Keywords: Episodic memory, action memory, enactment effect, subject-performed tasks, experimenter-performed tasks, verbal tasks, school-aged children, memory strategies, information processing.

Farzaneh Badinlou, School of Law, Psychology, and Social Work Örebro University, SE-701 82, Sweden