Children's construal of intermediary instrumental causal chains from the perspective of event integration

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Based on two configurations of intermediary instrumental causal chains and inspired by Michotte's (1946/1963) visual causality models, we propose three models of instrumental onset causal chains and two models of instrumental extended causal chains:

IECC1: (Agent \rightarrow Instrument) \rightarrow Patient, IECC2: Agent \rightarrow (Instrument \rightarrow Patient);

IOCC1: (Agent \rightarrow Instrument) \rightarrow Patient, IOCC2: Agent \rightarrow (Instrument \rightarrow Patient),

IOCC3: Agent \rightarrow Instrument \rightarrow Patient

(Instrumental onset causal chains (IOCC); Instrumental extended causal chains (IECC))

The degree of clause integration will be taken as indicative of the degree of event integration (Givón 2001). According to event integration theories, in both onset causation and extended causation, a whole causal sequence of events may be conceptually integrated as a single macro-event owing to spatial proximity and the temporal sequence between the causing event and the caused event, and syntactically integrated into a single clause-structure construction (Talmy 2000). However, different degrees of spatio-temporal proximity of the causing event and the caused event in instrumental causal chains result in various patterns of event integration. So we hypothesize that the degree of event integration of instrumental extended causal events would be higher than that of instrumental onset causal events. In a video description task, 30 Chinese-speaking undergraduates and 20 Chinese-speaking 7-year-olds are asked to describe what happens in the videos and judge how many events are included in each stimulus.

Finally, (1) Both the adult and children participants' data showed that the degree of event integration for instrumental extended causal chains is higher than that of instrumental onset causal chains linguistically and conceptually. However, analyzing only the verbal encoding, the children group's performance indicates the degree of event integration of different types of causal chains in the following sequence: IECC1>IOCC2>IOCC1>IECC2>IOCC3, showing great deviation. This can be explained based on various theoretical aspects, including metacognition, children's phases of cognitive development, perspective taking, and lexicon. (2) Both the adult group and the children group preferred to use serial verbal constructions to represent either instrumental onset causal events or instrumental extended causal events.

References

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