

Coherence and cohesion in children's written narratives

The early stages of writing development start with the mastery of producing letters and basic spelling, as well as motor coordination required for handwriting. Most research has focused on these transcription-level factors, as they can account for a large part of the variance encountered in children's written compositions. However, to acquire adult-level writing skills, children need to move beyond this mere transcription stage and learn to approach the text as a whole. This developmental stage is particularly relevant, since it involves moving attention from a mere consideration of transcription factors to an elaboration of composition and text generation skills, important for the content and organization of the text (Flower & Hayes, 1980). Global coherence and textual cohesion are known to contribute significantly to the organization of a text and are considered strong predictors of overall writing quality (e.g. Bamberg, 1984; Halliday & Hassan, 1976; van Dijk, 1980).

Although it has been recognized that the acquisition of composition level factors contributes significantly to writing development, few research has focused on the different linguistic, cognitive and neuropsychological factors underlying the composition level of discourse. There is, however, general agreement that multiple cognitive systems (e.g. linguistic, emotion, memory, executive functioning) are integral to maintaining the multilevel organization involved in telling a story (e.g. McCutchen, 1996; Hartly & Jensen, 1991; Glosser, Brownwell, & Joannette, 1993; Alexander, 2006). The nature of these cognitive systems and the degree to which they influence the writing process remains largely unknown until now.

This study adopted a process-oriented approach to discourse coherence which focused on the production-internal cognitive, neuropsychological and linguistic processes involved in the establishment of textual cohesion and global coherence, hypothesizing that there are a variety of cognitive processes underlying the choice for certain patterns of cohesion and coherence in a text. A picture description task was used to elicit written narratives of children aged 10 years (Expression, Reception and Recall of Narrative Instrument; Bishop, 2004). By this age, children have acquired and automatized to a great extent most transcription-level processes, so attention can be directed towards higher-level processes of idea generation and organization. The written narratives were then analyzed according to a four-factor model of global coherence, which assumes that several components contribute in a different but complementary way to overall coherence, and according to the model of textual cohesion proposed by Halliday & Hassan (Halliday & Hassan, 1976). Furthermore, a developmental model of executive functioning and working memory was applied to investigate possible correlations with the components of coherence and cohesion. This developmental model included four distinct but integrative, functional domains, i.e. attentional control, cognitive flexibility, goal setting and information processing (Anderson, 2002). Apart from these executive functions, also measures of linguistic abilities, general intelligence and capacities involving Theory of Mind and logical reasoning were collected and included in the analyses.

References

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