

Forward and Backward Causal Relations in Narrative Text

Lindsay Anderson, Stephen Briner, & Sandra Virtue

During story comprehension, readers often make connections between different events in a text. For example, readers make inferences about the causes and effects that occur in a story (e.g., Trabasso & Wiley, 2005). In narrative text, the cause is typically described before the effect (i.e., a forward cause). However, a cause may be described after the effect in a text (i.e., a backward cause). Because comprehension is often disrupted when events are presented out of chronological order (Fleishman, 1990), readers should respond differently to forward and backward causes in a text. Therefore, in the current study, we investigated how readers process text containing forward and backward causes. Participants read sixty-four sets of narrative text containing: a forward cause, a backward cause, a forward control, or a backward control condition. In the forward causal condition, the events in the second sentence caused those in the first sentence (i.e., *I dropped the cup. It lay in pieces*). In the backward causal condition, events in the second sentence caused the events in the first sentence (i.e., *The cup lay in pieces. I dropped it*). In the control condition, there was no causal relation between the events. After reading each text, participants were presented with related targets and indicated whether each target was a word or nonword (i.e., a lexical decision task). The current results showed faster response times to targets in the forward cause condition than in the forward control condition, and faster response times in the backward cause condition than in the backward control condition. Importantly, response times were

faster for targets in the forward cause than in the backward cause condition. These findings suggest that readers generate both forward and backward causal inferences, although additional cognitive effort may be needed during the processing of backward causes in a text.

References

- Fleischman, S. (1990). *Tense and narrativity: From medieval performance to modern fiction*. Austin: University of Texas Press.
- Trabasso, T., & Wiley, J. (2005). Goal plans of action and inferences during the comprehension of narratives. *Discourse Processes*, 39, 129-164.