

Detrimental Effects of Seductive Details on Multiple Text Inference Generation

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STUDY GOALS

- Extend seductive details (SD) effect to multiple text context
 - Explore impact on inferences across texts
- Test explanations using reading time predictions¹
 - Reduced Attention: less time spent on main text in SD condition
 - Coherence Break: longer time on sentences following SDs
 - Inappropriate Schema: *no timing predictions*
- Examine influences of learner characteristics
 - Interest, prior knowledge, vocabulary, and need for cognition (NFC)

¹ Lehman et al. (2007). Processing and recall of seductive details in scientific text.

METHOD

- Two texts about weather patterns in typical and El Niño seasons²
 - Presented sentence-by-sentence for reading times
 - Seductive details based on pilot ratings of interest and importance
- Intertextual Inference Verification Task (IIVT)²
 - Judge whether 18 provided inferences could be made by combining information across both texts
- Learner characteristics
 - Interest, prior knowledge, vocabulary, & NFC

² Braasch et al. (2014). *Incremental theories of intelligence predict multiple document comprehension.*

RESULTS

- Worse IIVT performance for those receiving text with seductive details
 - Seductive Details ($M = 8.71$, $SD = 2.61$) < Control ($M = 9.84$, $SD = 2.66$)
- Mixed results for learner characteristics
 - Vocabulary and NFC were significant predictors of IIVT performance
 - No interaction with condition
 - Neither interest nor prior knowledge significant (p 's > .6)
- Reading Times (*non-parametric tests used*)
 - No significant difference in main text reading times between conditions ($p = .49$)
 - Sentences following seductive details not significantly longer ($p = .14$)

DISCUSSION

- Seductive details effect observed with multiple text inference task
 - Seductive details detrimental for inferences across texts
- General benefits to IIVT performance from vocabulary and NFC
- Interest and prior knowledge not significant
 - Prior knowledge questions may have been too easy relative to inference ability
 - Interest may reflect general weather (e.g., tornadoes), rather than climate
- Reading time predictions all in correct direction, but not significant
 - Further research with larger sample may support these predictions