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

• 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