

# Individual Differences in College Students' Processing of Apparently Contradictory Text

Laura U. DeWynngaert, Linda Baker, Ceyda Basal, Sean Herrin, Chioma Ihgebe, Irene Javier, Werkernu Kingstron, & Kendra Kontchou

## INTRO

Comprehension monitoring, or evaluating and regulating one's comprehension, plays an important role in inferential processing. When skilled readers realize that something does not make sense (evaluation), they often try to establish coherence by making an inference (regulation) (Baker, 2017; Kendeou, van den Broek, & Karlsson, 2014).

The purpose of this study was to examine college student performance on a comprehension monitoring task and its relation to individual differences in reading, vocabulary, and executive functioning.

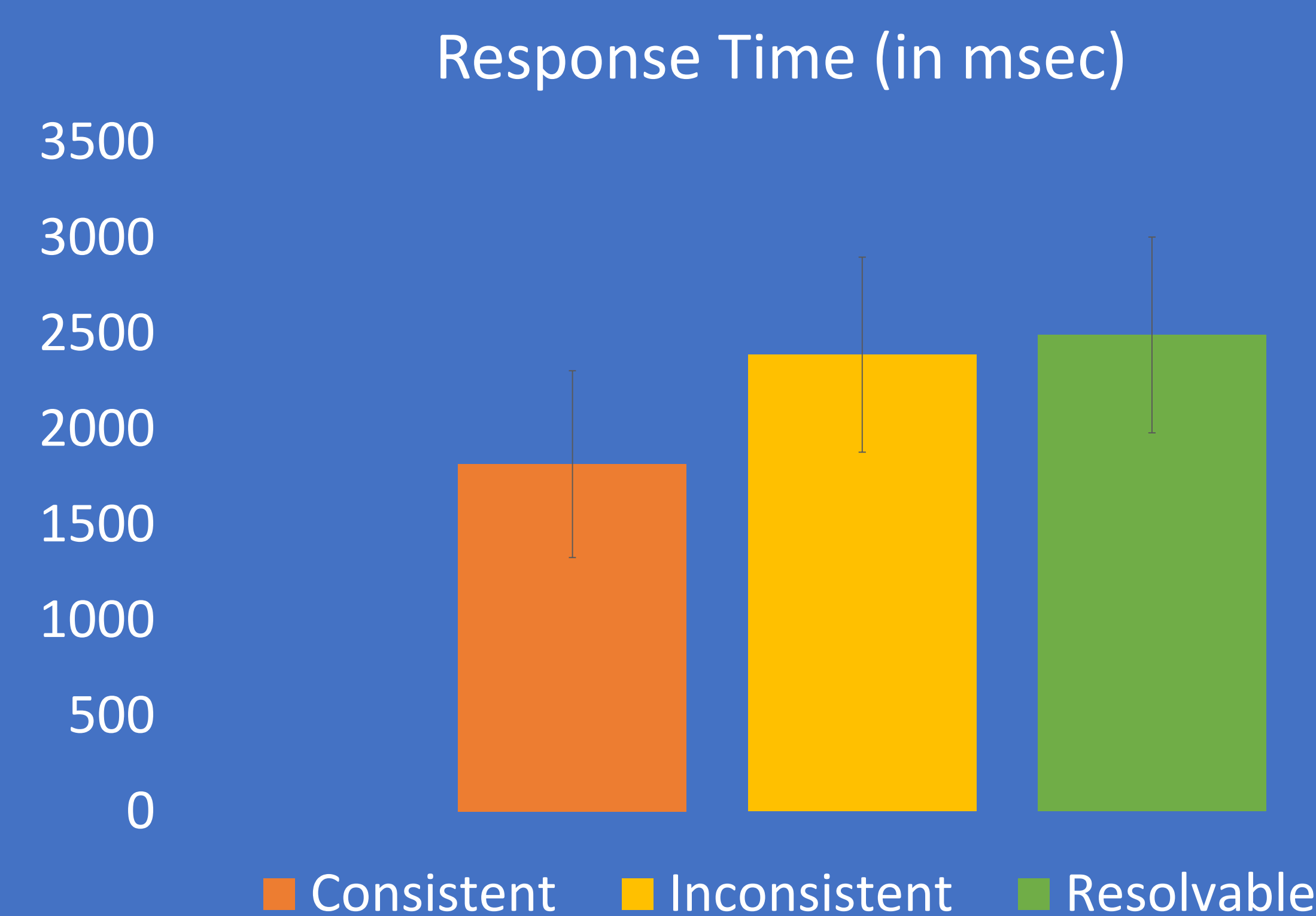
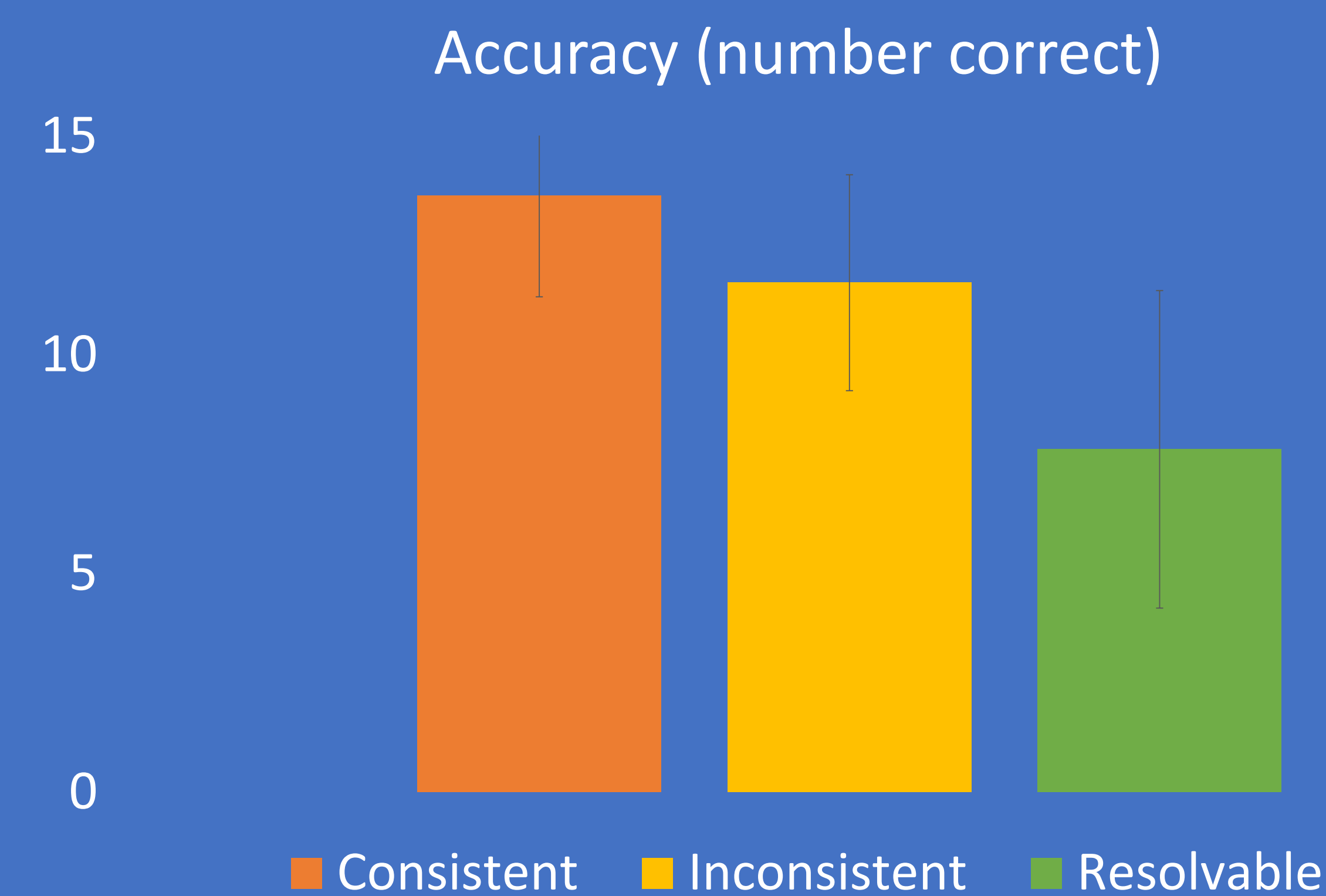
## METHODS

1. Participants : 115 ethnically diverse college students (82% female, M age 23.4)
2. Comprehension monitoring task: Participants judged whether each of 45 brief passages was internally consistent, blatantly inconsistent, or resolvable through inferencing . Only when the third sentence was presented via E-Prime could consistency be evaluated. Speed and accuracy were measured.

	Consistent	Inconsistent	Resolvable
<b>Sentences 1 and 2</b>	The new symphony was played today. The orchestra played superbly.	Amina played in the basketball game. She didn't make a single basket.	Josh had an art project due. He spilled juice on his painting.
<b>Sentence 3</b>	The audience loved the performance	Amina was the lead scorer.	His teacher loved his work.

1. Individual difference measures :
  - The Broad Reading Cluster of the Woodcock Johnson III
  - The PPVT vocabulary test
  - The BRIEF, a self-report survey of executive function

The experimental component of this study adds to the literature in showing that **inferencing is a critical component of effective comprehension monitoring.**



The correlational component replicates previous evidence that **better literacy skills predict better comprehension monitoring even at the college level and extends the literature in showing a role of executive functioning (particularly cognitive flexibility).**

## RESULTS and DISCUSSION

- Two repeated measures ANOVAs revealed that participants were fastest and most accurate on consistent passages, slowest and least accurate on resolvable passages, and in-between on inconsistent passages.
- Three regression analyses examined the role of individual differences in reading skill, vocabulary knowledge, and self-reported EF in predicting how many passages of each type would be classified as intended.
- Individual differences accounted for more variance on resolvable and inconsistent passages than on consistent ones ( $R^2 = .32, .30, \text{ and } .14$ , respectively).
- The effect of the decision time covariate was positive for resolvable passages and negative for the other two types.
- Participants who responded more slowly on resolvable passages were more likely to identify the passages as resolvable, an indication that they made an inference to resolve the apparent inconsistency.
- They also scored higher on the BRIEF scale that taps cognitive flexibility. To recognize items as resolvable requires the ability to go beyond the seemingly inconsistent information to infer new information that would make the item sensible.