

# Working Memory Capacity Predicts Multiply-Constrained Problem Solving: An Examination of Potential Mediators for this Relation



## Potential Mediators for this Relation

Derek M. Ellis Gene A. Brewer  
Arizona State University

**MACLab**  
Memory & Attention Control Laboratory

### MULTIPLY-CONSTRAINED PROBLEM SOLVING

**Compound Remote Associates (CRAT)**  
Task: Find a word that forms a compound word or phrase with the three clues

**Clue 1** **Clue 2** **Clue 3**

**Solution**

**TriBond™**  
Task: Identify the thing that the clues have in common

**Clue 1** **Clue 2** **Clue 3**

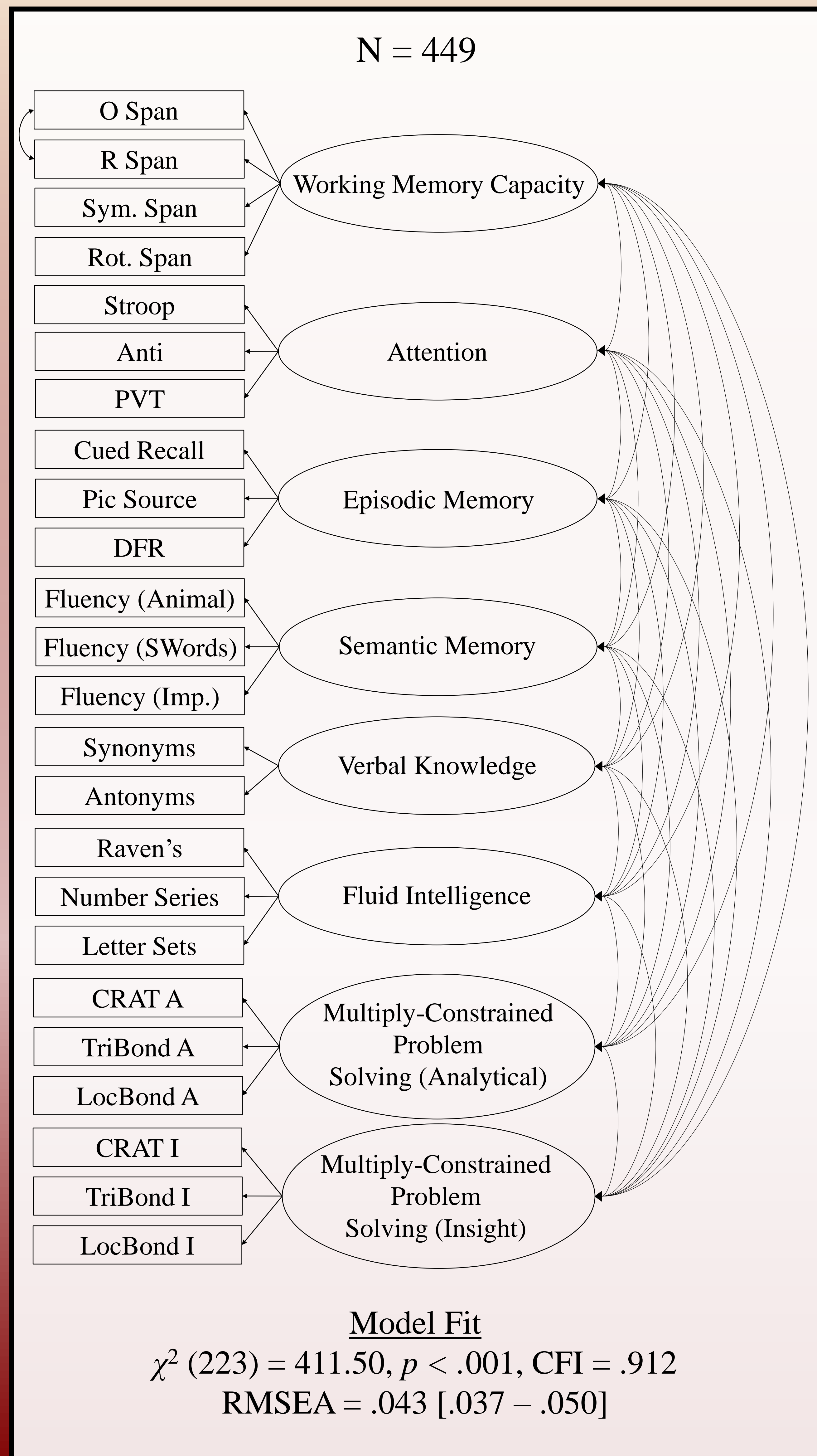
**Solution**

**Location Bond (LocBond)**  
Task: Identify the location indicated by the three clues

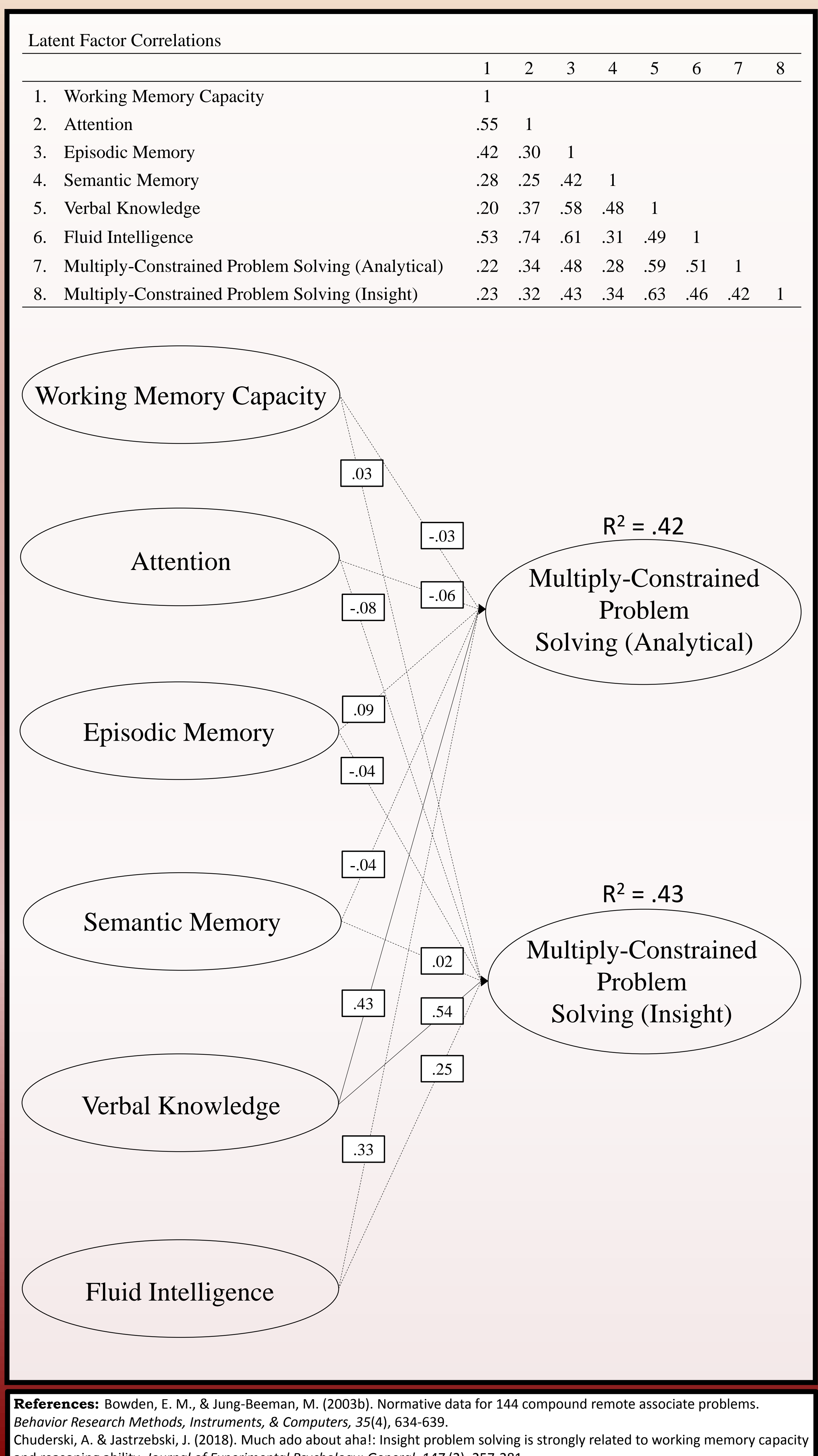
**Clue 1** **Clue 2** **Clue 3**

**Solution**

### CONFIRMATORY FACTOR MODEL



### STRUCTURAL MODEL



**References:** Bowden, E. M., & Jung-Beeman, M. (2003b). Normative data for 144 compound remote associate problems. *Behavior Research Methods, Instruments, & Computers*, 35(4), 634-639.  
Chuderski, A. & Jastrzebski, J. (2018). Much ado about aha!: Insight problem solving is strongly related to working memory capacity and reasoning ability. *Journal of Experimental Psychology: General*, 147 (2), 257-281.