

The Font Size Effect Does Not Extend to Math Problems

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Overview

- ❖ Prior research shows that participants give higher judgments of learning (JOLs) to words presented in large (48 pt.) font than to words in small (18 pt.) font. However, recall typically does not differ as a function of font size, a finding called the *font size effect* (Rhodes & Castel, 2008).
- ❖ Our lab previously found that participants gave higher JOLs to 3-digit number strings presented in large font than to those in small font, suggesting font size effects might also extend to numeric stimuli.
- ❖ The present study explored whether font size effects would be observed with more ecologically valid materials --modular arithmetic problems.
- ❖ Our focus was whether individuals' ease of solving (EOSs) ratings, problem solving accuracy, and retrospective confidence judgments (RCJs) would differ as a function of font size, difficulty, or fluency.

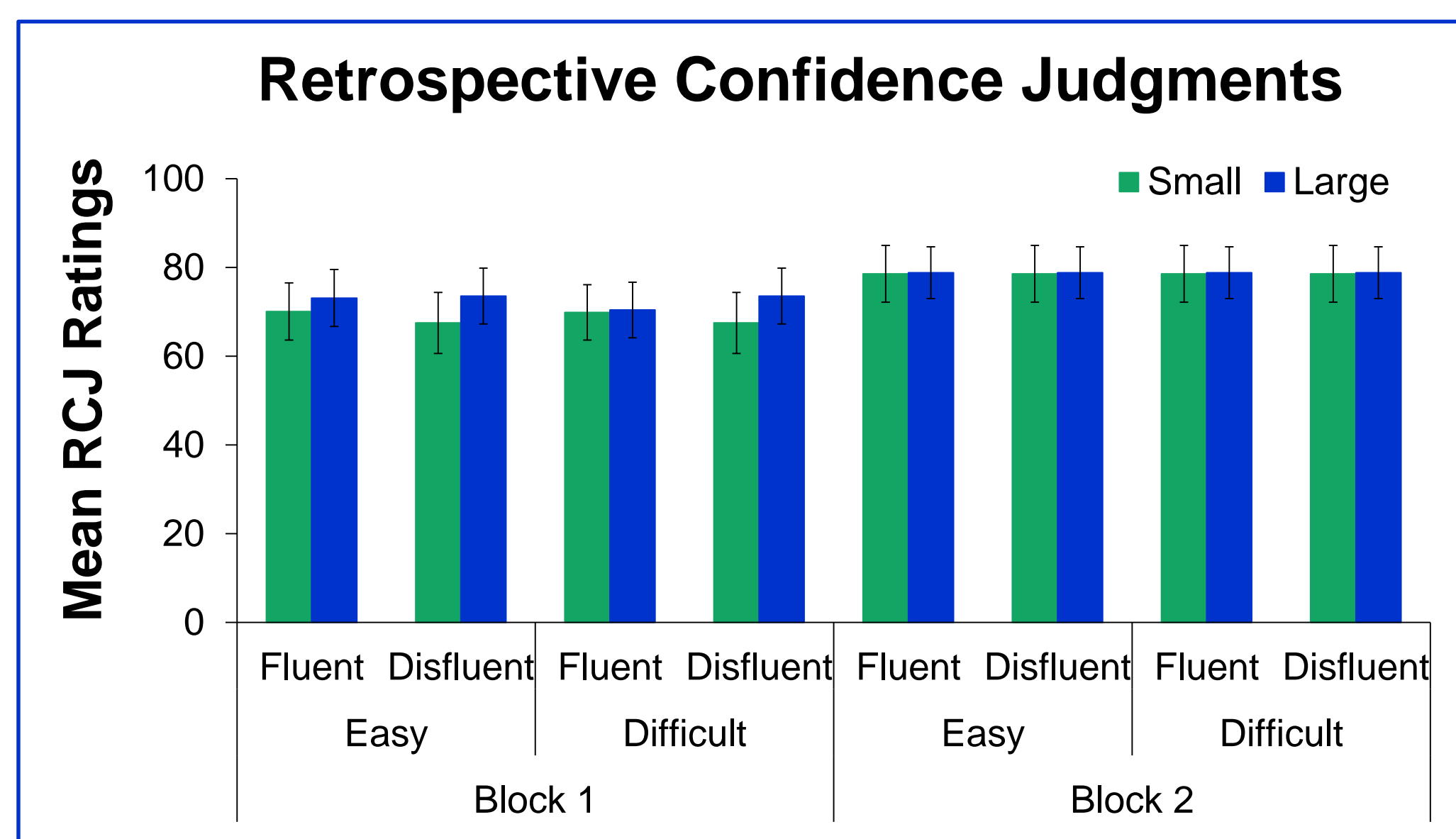
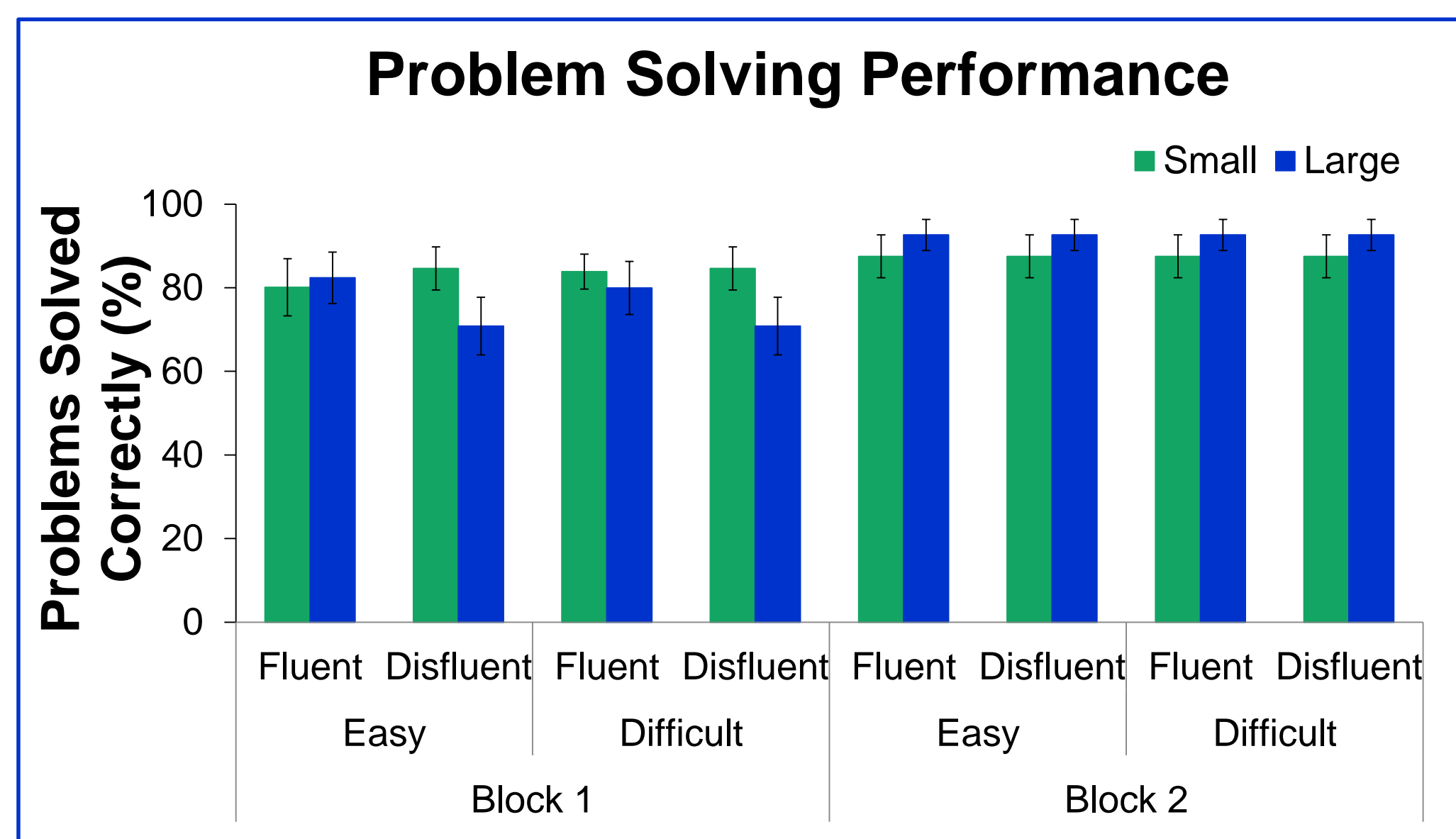
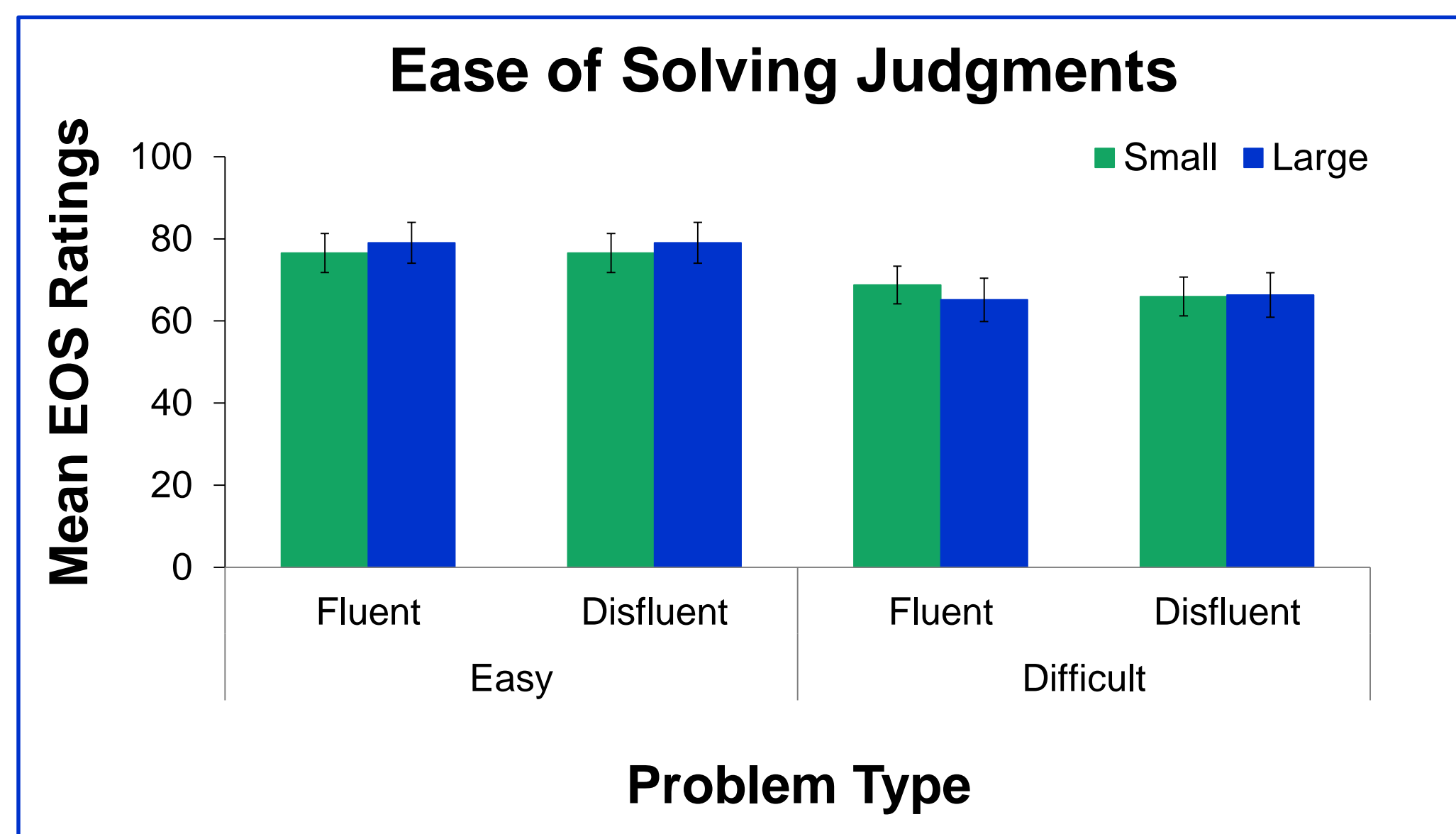
Examples of modular arithmetic problems

	Easy	Difficult
Fluent	$9 = 6 \pmod{3}$	$50 = 10 \pmod{5}$
Disfluent	$5 = 1 \pmod{3}$	$43 = 18 \pmod{8}$

Explanation

- ❖ Ease of solving judgments and RCJs were sensitive to difficulty of problems.
- ❖ Problem solving performance increased across blocks.
 - ❖ Better performance for easy problems
 - ❖ Performance higher for disfluent problems in Block 1, with the opposite pattern in Block 2.
- ❖ Font size did not affect judgments or performance in any case
 - ❖ Suggests that the nature of stimuli may determine whether font size effects are observed or not.

Key Findings



Impact

Future research should focus on the educational implications of presenting difficult math problems in a more fluent manner.

Acknowledgements

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