

# **Not all Errors are the Same: The Role of Cognitive Effort in Cross-Situational Word Learning**

**Katherine Snelling**

Queen's University, Kingston, Ontario, Canada

**Sydney Thib**

Queen's University, Kingston, Ontario, Canada

**Stanka Fitneva**

Queen's University, Kingston, Ontario, Canada

## **Abstract**

Errors are usually viewed as detrimental to learning. Yet, recent proposals suggest that errors may create desirable difficulties and thereby improve learning. We evaluated these proposals in the context of cross-situational word learning. During each learning trial, adults saw two images and heard two words. In the Error1 condition, the first word was unexpected based on prior experience and the second was expected. The referent of the unexpected word could only be established after hearing the expected word. In the Error2 condition, the expected word came first, which made it easier to learn the mapping of the subsequent unexpected word. There was no difference between the conditions; however, expected words were only learned significantly better than unexpected words in the Error2 condition. This suggests that the structure of the learning environment modulates the impact of errors.