

INDIVIDUAL DIFFERENCES IN OBJECT-BASED ATTENTION

BY
SARAH ELIZABETH CREIGHTON

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AUTHOR: Sarah Elizabeth Creighton

SUPERVISOR: Dr. Allison Sekuler

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Abstract

Object-based attention theories suggest that objects guide how information is gathered from the visual environment. Evidence for this comes from the same-object effect – faster and/or more accurate performance when identifying multiple properties of a single object rather than different objects. Using Watson and Kramer’s (1999) paradigm, we examined individual differences in object-based attention. Subjects were briefly shown two wrench-shaped objects and responded whether only one target property (a bent wrench end or an open wrench end) was present or whether both target properties were present. Using bootstrapping, we found extensive variability in task performance across subjects: half showed no significant difference, a quarter showed differences in the expected direction (same-object benefit), and a quarter in the unexpected direction (different-object benefit). These findings suggest object-based attention may be less stable and pervasive than previously suggested, and highlight the importance of examining individual performance differences in perceptual and cognitive tasks.