Unconscious auditory information can prime visual word processing: A process-dissociation procedure study

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Created 2/2/2011
By deouell February 2, 2011

Lamy, D, Mudrik L, Deouell LY. 2008.

Abstract:

Whether information perceived without awareness can affect overt performance, and whether such effects can cross sensory modalities, remains a matter of debate. Whereas influence of unconscious visual information on auditory perception has been documented, the reverse influence has not been reported. In addition, previous reports of unconscious cross-modal priming relied on procedures in which contamination of conscious processes could not be ruled out. We present the first report of unconscious cross-modal priming when the unaware prime is auditory and the test stimulus is visual. We used the process-dissociation procedure [Debner, J. A., & Jacoby, L. L. (1994). Unconscious perception: Attention, awareness and control. Journal of Experimental Psychology: Learning, Memory, and Cognition, 20, 304-317] which allowed us to assess the separate contributions of conscious and unconscious perception of a degraded prime (either seen or heard) to performance on a visual fragment-completion task. Unconscious cross-modal priming (auditory prime, visual fragment) was significant and of a magnitude similar to that of unconscious within-modality priming (visual prime, visual fragment). We conclude that cross-modal integration, at least between visual and auditory information, is more symmetrical than previously shown, and does not require conscious mediation. (C) 2007 Elsevier Inc. All rights reserved.

Journal:
Consciousness and Cognition

Volume:
17

Pagination:
688-698

Notes:
Times Cited: 1
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