UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

On the road to . . . somewhere? Change-blindness in event description tasks isinformative about the interrelation between visual perception and languageplanning

Permalink

https://escholarship.org/uc/item/8bt592v8

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 39(0)

Author

Gerwien, Johannes

Publication Date

2017

Peer reviewed

On the road to ... somewhere? Change-blindness in event description tasks is informative about the interrelation between visual perception and language planning

Johannes Gerwien

Heidelberg University, Heidelberg, Germany

Ines Marberg

Heidelberg University, Heidelberg, Germany

Abstract: The visual processing of complex event stimuli and the planning of utterances to describe them happen rapidly and partly overlap in time, posing a challenge to researchers on vision and language: How exactly do the processes interact? As a test case we investigate how sudden content-changes in visual scenes affect speakers of different languages. In a novel approach, we elicit event descriptions from naturalistic video stimuli of motion events consisting of two segments (240ms each), each followed by a mask (80ms). A potential change-blindness situation regarding the presence/absence of the goal of motion is created. We exploit typological differences between French and German regarding the verbal encoding of goal-orientation. Analyses of the linguistic data (content and timing) reveals a language-specific effect regarding how subjects accommodate to seemingly unnoticed changes (e.g., distribution of hesitations, temporal onsets of words). Furthermore, we find differences in overt change detection frequency depending on conditions.