

Author's Accepted Manuscript

Rapid top-down control over template-guided attention shifts to multiple objects

Anna Grubert, Johannes Fahrenfort, Christian N.L. Olivers, Martin Eimer



PII: S1053-8119(16)30424-4

DOI: <http://dx.doi.org/10.1016/j.neuroimage.2016.08.039>

Reference: YNIMG13397

To appear in: *NeuroImage*

Received date: 7 June 2016

Revised date: 18 August 2016

Accepted date: 18 August 2016

Cite this article as: Anna Grubert, Johannes Fahrenfort, Christian N.L. Oliver and Martin Eimer, Rapid top-down control over template-guided attention shift to multiple objects, *NeuroImage* <http://dx.doi.org/10.1016/j.neuroimage.2016.08.039>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain

Rapid top-down control over template-guided attention shifts to multiple objects

Anna Grubert¹, Johannes Fahrenfort², Christian N. L. Olivers², Martin Eimer¹¹Department of Psychological Sciences, Birkbeck, University of London²Department of Experimental and Applied Psychology, VU University

*Corresponding author. Martin Eimer, Department of Psychological Sciences, Birkbeck, University of London, Malet Street, London WC1E 7HX, UK. E-mail: m.eimer@bbk.ac.uk

Abstract

Previous research has shown that when observers search for targets defined by a particular colour, attention can be directed rapidly and independently to two target objects that appear in close temporal proximity. We investigated how such rapid attention shifts are modulated by task instructions to selectively attend versus ignore one of these objects. Two search displays that both contained a colour-defined target and a distractor in a different colour were presented in rapid succession, with a stimulus onset asynchrony (SOA) of 100 ms. In different blocks, participants were instructed to attend and respond to target-colour objects in the first display and to ignore these objects in the second display, or vice versa. N2pc components were measured to track the allocation of spatial attention to target-colour objects in these two displays. When participants responded to the second display, irrelevant target-colour objects in the first display still triggered N2pc components, demonstrating task-set contingent attentional capture while a feature-specific target template is active. Critically, when participants responded to the first display instead, no N2pc was elicited by target-colour items in the second display, indicating that they no longer rapidly captured attention. However, these items still elicited a longer-latency contralateral negativity (SPCN component), suggesting that attention was oriented towards template-matching objects in working memory. This dissociation between N2pc and SPCN components shows that rapid attentional capture and subsequent attentional selection

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات