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Title: Feature-guided attentional capture cannot be prevented by spatial filtering

Authors: Nick Berggren, Martin Eimer

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Running Head: FEATURE-BASED ATTENTIONAL CAPTURE**Feature-guided attentional capture cannot be prevented by spatial filtering**

Nick Berggren* and Martin Eimer

Department of Psychological Sciences, Birkbeck College, University of London,
Malet Street, London WC1E 7HX, UK

* Corresponding Author:

Phone: 0044 20 76316522

Fax: 0044 20 76316312

Email: nbergg01@mail.bbk.ac.uk

Highlights:

- Attentional guidance by search templates for target features is spatially global
- We demonstrate attentional capture by target features at irrelevant locations
- Capture at irrelevant locations persists even when attention is narrowly focused
- Spatial filtering processes cannot prevent spatially global feature-based capture

ABSTRACT

Feature-based control processes guide attention towards objects with target features in visual search. While these processes are assumed to operate globally across the entire visual field, it remains controversial whether target-matching objects at task-irrelevant locations can be excluded from attentional selection, especially when spatial attention is already narrowly focused elsewhere. We investigated whether probe stimuli at irrelevant lateral locations capture attention when they precede search displays where targets are defined either by a specific feature (colour or orientation) or by a colour/orientation conjunction by measuring N2pc components (an electrophysiological marker of attentional target selection) to these

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