

# The time course of colour guidance in realistic scene search

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**Abstract:** Colour is a source of attentional guidance and object segmentation when viewing a scene. In an eye-tracking study, we examined its role during search of targets placed in consistent or inconsistent locations within realistic scene contexts. Both the target template and the whole scene were presented in full colour or grayscale. Colour presence did not influence early search, considering latency, direction or gain of the first saccade, but affected later phases, with longer scene scanning and more fixations required to locate the target in the grayscale condition, which also lengthened verification of template-object matching. These effects were enhanced in inconsistent scenes. Our results suggest that observers may not utilise colour cues when initiating scene inspection during search but also that colour information modulates efficiency of the search process in terms of attentional selection and object recognition, in particular when the context of the scene does not provide reliable high-level guidance.