

Abstract of thesis entitled:

Pooled response hypothesis revisited: Evidence from inter-trial effects

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In visual search tasks, when trials with targets defined by various perceptual dimensions are mixed within a block, search is often slower when the target-defining dimension of its preceding trial is different. This time cost is often interpreted as the time needed for shifting attention across dimensions. In three experiments, it is demonstrated that this inter-trial effect disappears when location information or focused attention is necessary for a search. Implications to the two-stage visual search framework (Treisman & Sato, 1990; Wolfe, 1994) are discussed. It is suggested that response routines may be initiated by early feature analysis modules, and attentional guidance in guided searches is generally insensitive to perceptual dimensions.

在一個混合了多個目標知覺維的視覺搜尋實驗環節內，如果先前一次試驗與本次試驗的目標維是不同的話，搜尋速度通常會較慢。這時間成本通常被解釋為在不同的知覺維之間轉移注意力所需要的時間。在三個實驗裡，我展示了當位置資訊或焦點注意力為當前搜尋工作所必需時，這個跨試驗效應便會隨之消失。

在本論文裡，我討論了這視象對「二段視覺搜尋理論框架」(Treisman & Sato, 1990; Wolfe, 1994) 的含意。其中，我建議單憑早期特徵分析模組已足以啟動行為反應。另外，在導向搜尋中的注意力導向過程並不對知覺維的分別敏感。