

A new paradigm combines attentional cuing and rapid serial visual presentation to disentangle the effects of perceptual filtering and location selection. Ss search successive, superimposed arrays, in which feature values are alternated, for a target number among letters. Two dimensions, size (small/large) and color (red/green) are tested. Selective attention to feature values is jointly manipulated by instructions, presentation probabilities, and payoffs. In Expt. 1, the attended feature provides temporal, not spatial information: Ss show no attentional costs or benefits in response accuracy. In Expt. 2, the attended feature indicated a unique location: Ss show consistent attentional costs and benefits. Conclusion: Selective attention to a particular size or color fails to cause perceptual exclusion or admission of items containing that feature; it acts by guiding search processes to spatial locations that contain the to-be-attended feature.