Influence of distracting items on target response accuracy in the Attentional Blink

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Abstract

The attentional blink (AB) phenomenon refers to our inability to identify two target stimuli embedding in a rapid sequence of distracting items displayed in rapid serial visual presentation (RSVP). Studies have shown that response accuracy of the first target is nearly perfect, yet that of the second target is seriously dropped, particularly if the second target is presented less than about 500ms after the first one. The present study focuses on the influence of the preceding distracting items on subsequent target responses accuracy during the AB, particularly on the processing of two successive items which were displayed immediately after the first target. There were 3 main results: First, the reported accuracy of the middle item, that is, the item presented after the first item, was dependent on the categories of this middle item and the distracting item, in other word, on whether this middle item belonged to a novel category within the RSVP stream. Second, the correct identification of the second target was independent on the response accuracy, or the necessity of reporting the middle item. Third, the variety of the distracting items may influence the reported accuracy of the second letter. I would compare the TLC hypothesis and the resource-based models with respect to the current findings.