

Repetition blindness (RB) refers to the failure to detect or recall repetitions of words in rapid serial visual presentation (RSVP). Experiment 1 showed that RB can be replicated with Chinese characters. Experiment 2 adopted a category monitoring task and showed that the response times to the second repeated targets were longer than the response times to the second unrepeated targets when the presentation rate was relatively fast (i.e., 117 ms/item), whereas the opposite was true when the presentation rate was relatively slow (i.e., 200 ms/item). The results of Experiment 2 were replicated in Experiment 3 in which only two critical items were presented in each trial. Experiment 4 showed that RB changed to repetition priming when the first critical items were not necessary to be responded to. Experiments 5 and 6 showed that discriminability between the two critical targets did not significantly affect the effect size of RB. Experiment 6 further showed that RB in terms of reaction times was observed in high frequency pairs only. The RB observed in the present study did not likely occur at storage or retrieval stages of operations. In addition, the reaction time data indicate that RB is not an all-or-none phenomenon. The relationship between RB and repetition priming and other methodological concerns are also discussed.