

Three experiments examined the necessity of awareness in producing the repetition blindness (RB) effect. This was done by using a novel procedure in which three orthographically similar items appeared in the RSVP stream (e.g., mine, mile, file). On these trials participants would often be unaware of the second similar item, so report of the third similar item served as an index of how often RB occurs when participants are unaware of the second similar item. Results give no indication that RB can occur without awareness of the preceding similar item. Additional comparisons revealed that RB late in the RSVP stream was significantly smaller than RB occurring early in the RSVP stream. These results are discussed in terms of current RB theories. It is suggested that awareness often co-occurs with RB because both processes rely on encoding effectiveness. It is also proposed that encoding effectiveness determines the magnitude of RB.