



Entire Set of Printable Figures For

Avian Visual Attention in Science and Culture

Shimp, Herbranson, and Fremouw

Figure 2. Humans' average reaction time to recognize and respond to a target location as a function of the time between cue and target. A symbolic cue preceded the target and predicted the target's location. Targets were likely to be in the predicted location (valid cues), unlikely to be in the predicted location (invalid cues) or were randomly predicted (neutral cues). Reaction times depended on cue validity and on the time between cue and target. See Figure 1 and related text in Posner, Nissen, and Ogden (1978) for additional details.

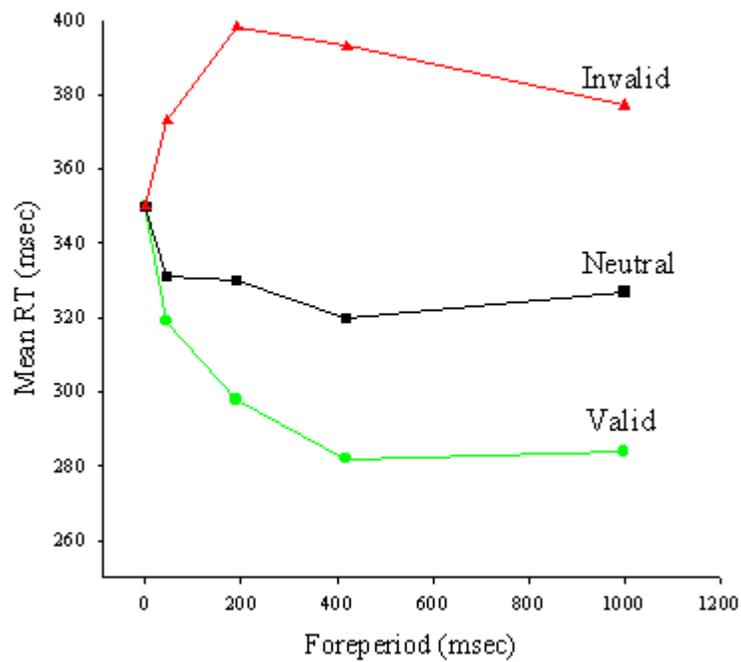
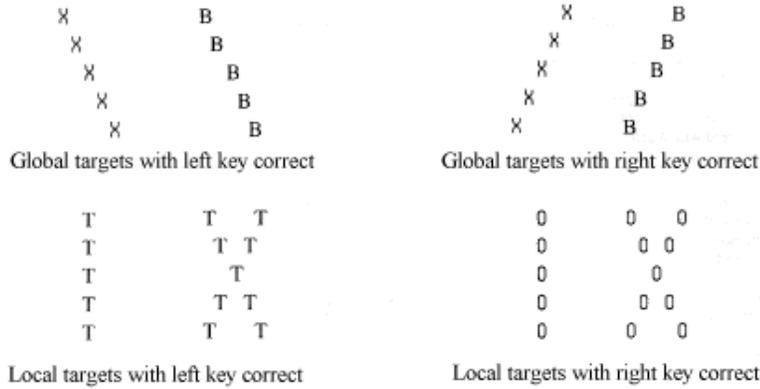
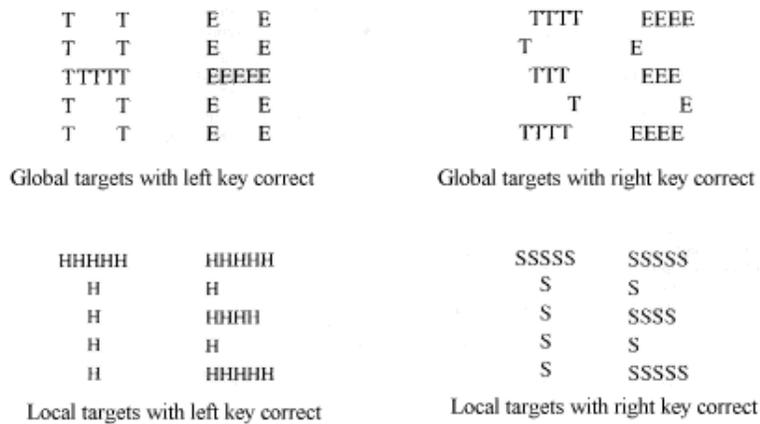


Figure 3. Pigeons viewed these complex stimuli with target stimuli at either the local or global level of perceptual analysis. See Figure 1 and related text in Fremouw, Herbranson, and Shimp (1998) for additional details.

Stimuli in Experiment 1 for Birds 1 and 2



Stimuli in Experiment 1 for Birds 3, 4 and 5



Sound files can't be printed

Figure 4. Top panel: Bivariate normal distributions represent the likelihoods that various rectangles were presented as exemplars of fuzzy categories A or B. Each point in the space over which the distributions are defined corresponds to a possible rectangle displayed to a pigeon. Any rectangle could be presented as an exemplar of either category, but most rectangles were more likely to belong to one category than to the other.

Bottom panel: Contours of equal likelihood and the corresponding linear optimal decision bound, according to which a rectangle should be categorized as an A or a B depending on whether the rectangle is taller than wide or wider than tall, respectively. See Figure 1 and related text in Herbranson, Fremouw, and Shimp (1999) for additional details.

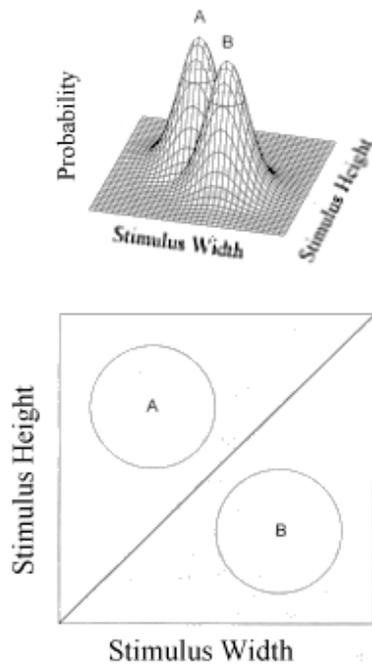


Figure 5. Representation of a divided attention task corresponding to that used by Ashby and Gott (1988) with human participants. Here, however, pigeons categorized rectangles depending on whether they were taller than wide or wider than tall. The task required attention to both dimensions of a rectangle. Means of categories A and B are shown in the bottom panel. See Figure 2 and related text in Herbranson, Fremouw, and Shimp (1999) for additional details.

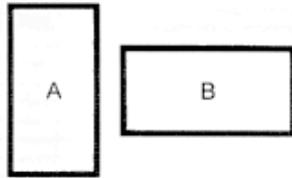
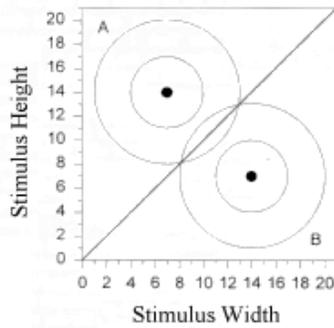


Figure 6. Filled circles and x's represent individual categorizations by a single human participant of two-dimensional stimuli in a divided attention task. Filled circles and x's tend to cluster on opposite sides of the optimal decision bound, showing that the person divided attention in a nearly optimal manner between the two dimensions. See Figure 7 and related text in Ashby and Gott (1988) for additional details.

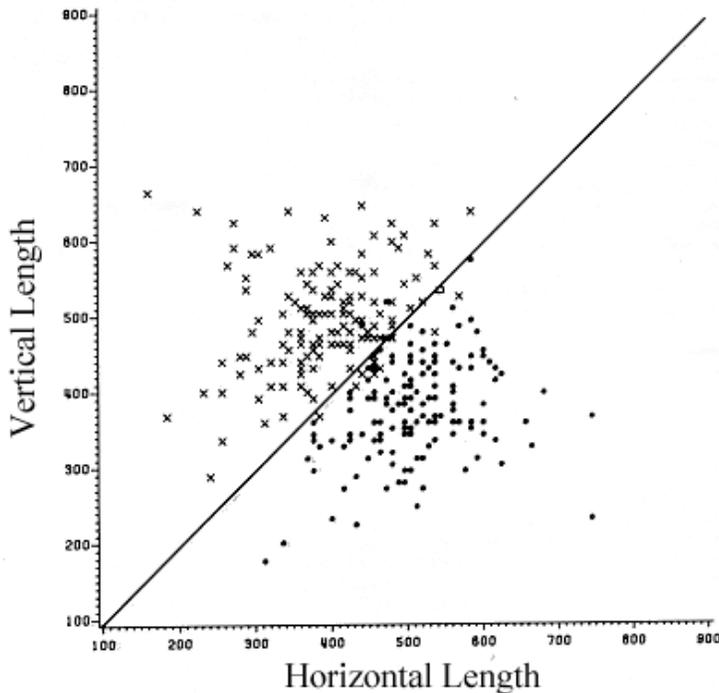


Figure 7. Representation of a selective attention task in which a pigeon categorized rectangles depending on whether they were narrower or wider than a fixed criterion width. Top panel: Two contours of equal likelihood are shown for each category. For each category, the smaller and larger circular contours are 1 and 2 s.d.'s from the mean (filled circle) of the corresponding normal bivariate distribution. Bottom panel: The two exemplars corresponding to the means of categories B and A, respectively. See Figure 3 and related text in Herbranson, Fremouw, and Shimp (1999) for additional details.

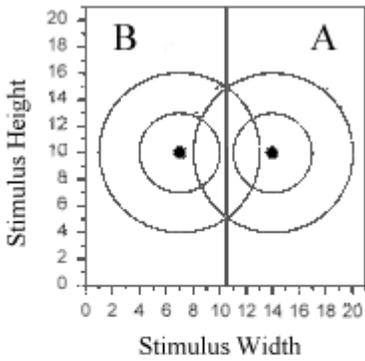


Figure 8. Filled circles and x's represent individual categorizations by a human participant of two-dimensional stimuli in a selective attention task. The categorizations tend to cluster on opposite sides of the optimal decision bound, showing that the person selectively attended in a nearly optimal manner to just one of the two dimensions. See Figure 8 and related text in Ashby and Gott (1988) for additional details.

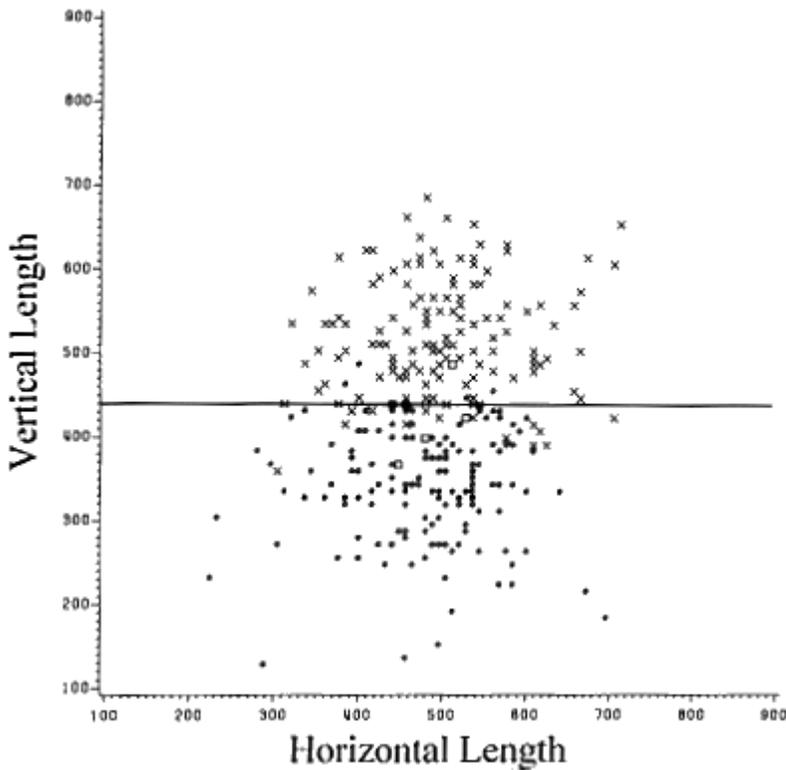
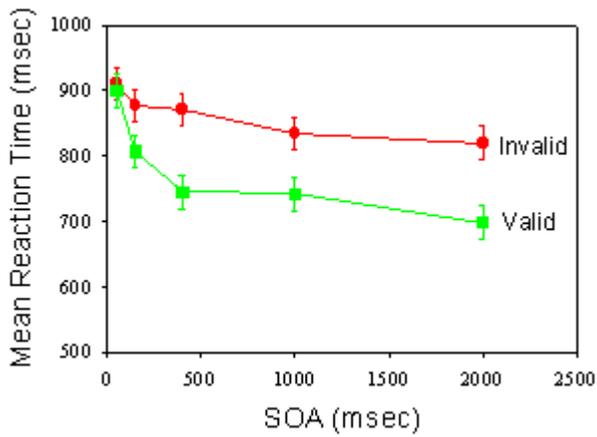
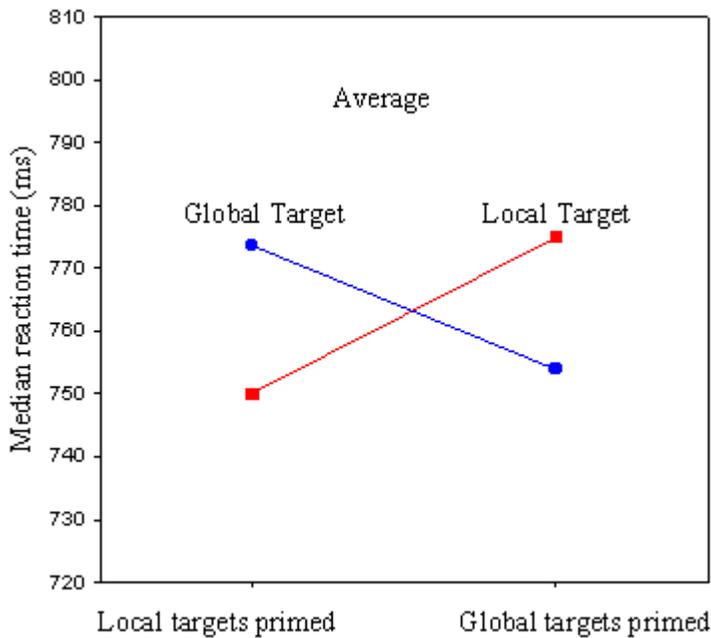


Figure 9. Pigeons' average reaction time to peck a target location as a function of time between cue and target, for valid and invalid cues (see also Figure 2 above). See Figure 1 and related text in Shimp and Friedrich (1993) for additional details.



Demo can't be printed

Figure 10. Pigeons' average reaction time to recognize a target at either a local or global level of perceptual analysis, as a function of which level was primed. See Figure 2 and related text in Fremouw, Herbranson, and Shimp (1998) for additional details.



Demo can't be printed

Figure 11. Filled and open circles represent categorizations by a pigeon of individual rectangles, as either taller than wide or wider than tall, respectively. The categorizations are well described by the optimal decision bound. See Figure 4 and related text in Herbranson, Fremouw, and Shimp (1999) for additional details.

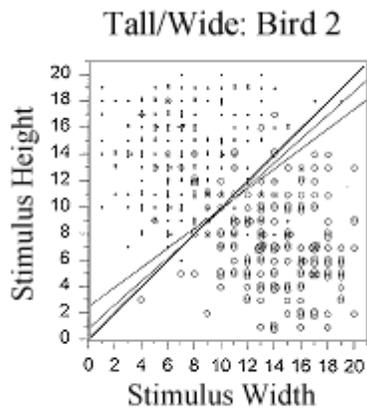


Figure 12. Filled and open circles represent categorizations by a pigeon of individual rectangles, as either wider or narrower than a fixed criterion, respectively. The categorizations show some control by the irrelevant dimension of height, but show considerable conformity to the optimal decision bound defined in terms of selective attention to width. See Figure 5 and related text in Herbranson, Fremouw, and Shimp (1999) for additional details.

