



**Digital Commons@**

Loyola Marymount University  
LMU Loyola Law School

---

Psychological Science Faculty Works

Psychological Science

---

1990

## Erratum: Hemispheric differences are found in the identification, but not the detection, of low versus high spatial frequencies

Joseph B. Hellige

*Loyola Marymount University*

Follow this and additional works at: [https://digitalcommons.lmu.edu/psyc\\_fac](https://digitalcommons.lmu.edu/psyc_fac)



Part of the [Psychology Commons](#)

---

### Digital Commons @ LMU & LLS Citation

Hellige, Joseph B., "Erratum: Hemispheric differences are found in the identification, but not the detection, of low versus high spatial frequencies" (1990). *Psychological Science Faculty Works*. 57.

[https://digitalcommons.lmu.edu/psyc\\_fac/57](https://digitalcommons.lmu.edu/psyc_fac/57)

This Article is brought to you for free and open access by the Psychological Science at Digital Commons @ Loyola Marymount University and Loyola Law School. It has been accepted for inclusion in Psychological Science Faculty Works by an authorized administrator of Digital Commons@Loyola Marymount University and Loyola Law School. For more information, please contact [digitalcommons@lmu.edu](mailto:digitalcommons@lmu.edu).

- and object perception. *Journal of Experimental Psychology: Human Perception & Performance*, **10**, 12-31.
- TREISMAN, A., & SOUTHER, J. (1985). Search asymmetry: A diagnostic for preattentive processing of separable features. *Journal of Experimental Psychology: General*, **114**, 285-310.
- ULLMAN, S. (1984). Visual routines. *Cognition*, **18**, 97-159.
- UNGERLEIDER, L. G., & MISHKIN, M. (1982). Two cortical visual systems. In D. J. Ingle, R. J. W. Mansfield, & M. A. Goodale (Eds.), *The analysis of visual behavior* (pp. 549-586). Cambridge, MA: MIT Press.
- VIEIRA, A., & TREISMAN, A. (1988). Automatic search: Changing perceptions or procedures [Abstract]. *Bulletin of the Psychonomic Society*, **26**, 515.
- WIJERS, A. A., MULDER, G., OKITA, T., MULDER, L. J. M., & SCHEFFERS, M. K. (1989). Attention to color: An analysis of selection, controlled search, and motor activation, using event-related potentials. *Psychophysiology*, **26**, 89-109.
- WIJERS, A. A., OKITA, T., MULDER, G., MULDER, L. J. M., LORIST, M. M., POIESZ, R., & SCHEFFERS, M. K. (1987). Visual search and spatial attention: ERPs in focussed and divided attention conditions. *Biological Psychology*, **25**, 33-60.
- WOLFE, J. M., CAVE, K. R., & FRANZEL, S. L. (1989). Guided search: An alternative to the feature integration model for visual search. *Journal of Experimental Psychology: Human Perception & Performance*, **15**, 419-433.
- WOLFE, J. M., & FRANZEL, S. L. (1988). Binocularity and visual search. *Perception & Psychophysics*, **44**, 81-93.
- WOODS, D. L., COURCHESNE, E., HILLYARD, S. A., & GALAMBOS, R. (1980). Split-second recovery of the P3 component in multiple decision tasks. In H. H. Kornhuber & L. Deecke (Eds.), *Motivation, motor, and sensory processes of the brain: Progress in brain research* (Vol. 54, pp. 322-330). Amsterdam: Elsevier/North-Holland.
- WOODY, C. D. (1967). Characterization of an adaptive filter for the analysis of variable latency neuroelectric signals. *Medical & Biological Engineering*, **5**, 539-553.

#### NOTES

1. This paradigm was chosen instead of the more common conjunction-search versus feature-search paradigm, for two reasons. First, serial

and parallel search modes can be produced with identical stimulus items by simply reversing target and distractor identities, and this partially controls for changes in the ERPs due to physical stimulus differences. Second, if conjunction targets are used to produce serial search, subjects may learn to utilize feature-specific filter mechanisms, thereby accomplishing a parallel search (Egeth et al., 1984; Wolfe, Cave, & Franzel, 1989). Whether conjunction targets or feature-absent targets are used, however, feature integration theory predicts the same sort of serial, self-terminating search process.

2. Since there was little P3 activity on the negative, feature-absent trials, the flat slope of the set size function for this measure should be viewed as indicating a lack of measurable P3 activity, rather than a lack of change in the duration of the cognitive processes indexed by P3.

3. It is conceivable, however, that additional processes may be interposed between the identification of a target item and the categorization of the entire stimulus array as a member of the target class. Since P3 latency might be sensitive to variations in the duration of such processes, we cannot completely rule out the possibility that the effects of set size are mediated in part by postperceptual, but precategorization, processes. Nonetheless, it is difficult to imagine a process occurring between target identification and stimulus categorization that would increase in duration linearly with the number of distractor items and produce a precise 2:1 ratio of slopes for negative as opposed to positive trials.

4. The reversed sequential effect for the response-locked averages can also be explained by local probabilities: The response-locked P3 activity on positive trials was due to the final, positive decision, and it was therefore smaller when the preceding trial also contained a positive decision.

5. It should be noted that a parallel search for alphanumeric stimuli is not necessarily inconsistent with feature integration theory. Treisman and her colleagues have proposed that items such as alphanumeric characters may be processed as features after extensive experience (cf. Treisman & Paterson, 1984; Vieira & Treisman, 1988).

(Manuscript received April 28, 1989;  
revision accepted for publication June 9, 1990.)

## Erratum

F. L. Kitterle, S. Christman, & J. B. Hellige. Hemispheric differences are found in the identification, but not the detection, of low versus high spatial frequencies. *Perception & Psychophysics*, 1990, **48**(4), 297-306—(1) On page 300, the last phrase of the third sentence under the heading "Reaction time data" should read "...although there is some suggestion that there are slightly faster RTs with LVF [rather than RVF] stimuli." (2) On page 305, in the Methods section of Experiment 5, the second sentence under "Stimuli" should read "The contrast of the gratings was .1, and the...."