

# A reply to McKeever's "On Orenstein's and Meighan's finding of left visual field recognition superiority for bilaterally presented words"

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McKeever (1976) points out that our (Orenstein & Meighan, 1976) method did not control for central fixation (thereby perpetuating a "naive assumption"), and that, therefore, not surprisingly our results support the view concerning the role of well-established reading habits in perceptual processing of bilaterally presented words. His method (e.g., McKeever, 1971) appears to control for central fixation; i.e., the subject is required to read out a single, centrally fixated digit prior to reading out bilaterally presented information. However, since no attempt was made to independently monitor fixation, it is possible that both the digit and the word to its right actually fell in the right visual field. The typical result associated with McKeever's method is right visual field superiority and the typical explanation is that the left brain is functionally dissimilar from the right brain in terms of language specialization.

Yet a rather simple analysis of the demand characteristics of the McKeever procedure reveals that his result is not incompatible with an explanation based on overlearned reading habits. Since the subject is required first to report the centrally fixated digit, then, consistent with his reading response (i. e., left-to-right processing), the next (and probably least difficult) item to report would be to the right of the digit; hence, the right visual field recognition superiority. This agrees with the outcome of studies in which some stimuli are presented only to the right visual field. Under the latter stimulus conditions, the left-right bias and the "scan" in the direction of the left portion of the word are in accord, and facilitation of recognition results. Similarly, when the subject cannot predict the location of words (i.e., when uni- and bilateral trials are intermixed), one can assume that he adopts the optimum strategy of

fixating the approximate central location. Again, processing would ensue from the center in a left-to-right direction, with right visual field superiority as the result. Perhaps a better test would be to require the subject to read out a centrally fixated letter ("L" for left and "R" for right) which determines the only word to report (or the first of the two words to report).

Further attempts to verify these alternative explanations should, therefore, more clearly establish where the eyes are fixated at the onset of and during stimulation, as well as in what direction the eyes move once the stimulus is no longer physically present. Most importantly, however, it would be desirable to conduct a multi-factor experiment to assess the role of stimulus presentation factors and structural (e.g., ocular dominance) variables in determining laterality differences (White, 1969).

## REFERENCES

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