

RELATIONSHIP BETWEEN OCULAR FUNCTIONS AND READING ACHIEVEMENT/REPLY

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Abstract

Hall and Wick point out some of the disagreement in the literature among methodologically sound studies researching a visual basis for reading problems.¹ In both their paper and Helveston et al's² study which is quoted in their conclusion, stereopsis is one of the ocular functions tested. Since reading is largely a two-dimensional task, it follows this is used as a measure of suppression. This would, I believe, be consistent with Helveston's grouping of stereopsis with the Worth 4-dot suppression test implying its use as such. Hall and Wick tested non-strabismic students by design; Helveston's test population was 96% nonstrabismic.

My study³ showed that in non-strabismic, nonamblyopic patients, stereopsis will diagnose about 12% of intermittent suppressions. An additional 1% is gained with the Worth 4-dot. Both tests have well-documented usefulness in strabismus, but are essentially useless in Hall and Wick's methodology of testing non-strabismics if finding any suppression is the goal. Excluding studies with this same improper testing, the literature tends to support intermittent suppression as a probable disruptive factor in reading.

Our knowledge of intermittent suppression as a visual confusion producing condition is certainly limited. That confusion is an impediment, a "hurdle" to reading, perception, and dynamic eye/body activities such as driving and sports. It probably does not in every case produce "dyslexia" as such. The presence or absence of dyslexia should not necessarily then be the determinant for therapy. Similarly, Ludwig van Beethoven's deafness did not stop his work, although we can still presume it had some effect on his lifestyle. And, few of us would reject the notion of correcting it, given the chance. Given Hall and Wick's (and Helveston's) probable error in testing, great care should be taken to not generalize their results to imply ocular function is not related to reading.

REFERENCES

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