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Understanding reading complaints in people with Parkinson's disease

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Introduction

Difficulty reading is a common complaint in people with Parkinson's Disease (PD), which negatively impacts quality of life. The process of reading involves a complex interaction of a variety of visual, visual perceptual and cognitive functions. However, little is known about the specific dysfunctions contributing to these complaints in people with PD. Using various visual, visual perceptual and cognitive tests this study attempts to create a more accurate account of the dysfunctions contributing to reading complaints in people with PD, by comparing people with and without reading complaints on these measures.

Method

The Screening Visual Complaints questionnaire (SVCq), designed to assess subjective visual complaints, including reading complaints, was administered to 74 people with PD seen at the visual rehabilitation center Royal Dutch Visio. Based on the reading item of the SVCq, the sample was divided into two groups: 55 people with reading complaints (often/always; mean age = 73 years, 71% male) and 19 people without/with infrequent reading complaints (never/hardly/sometimes; mean age = 70 years, 84% male). All individuals underwent an extensive assessment of visual functions, visual perceptual functions and cognitive functions, the results of which were compared between the two groups.

Results and conclusion

Functions that demonstrated the largest difference between the two groups are the visual functions visual acuity ($g = .54$), contrast sensitivity ($g = .76$), and reading vision ($g = .66$), and the visual perceptual functions visual motor speed/mental flexibility ($g = .56$), and lateralized attention/spatial cognition ($g = .58$). Cognitive functions showed only small effect sizes. People with PD and reading complaints showed poorer functioning than people without reading complaints on 29 of 38 tests.

So, some specific functions seem to contribute more to reading complaints than others, but a wide range of visual, visual perceptual and cognitive dysfunctions occur in people with PD and reading complaints. In general, these dysfunctions are to a lesser extent present in people without reading complaints. However, there seems to be no one-to-one relationship between reading complaints and specific functions. Therefore, standardized and regular questioning is advised for timely recognition and treatment of reading complaints in PD to prevent loss of quality of life and participation in society.

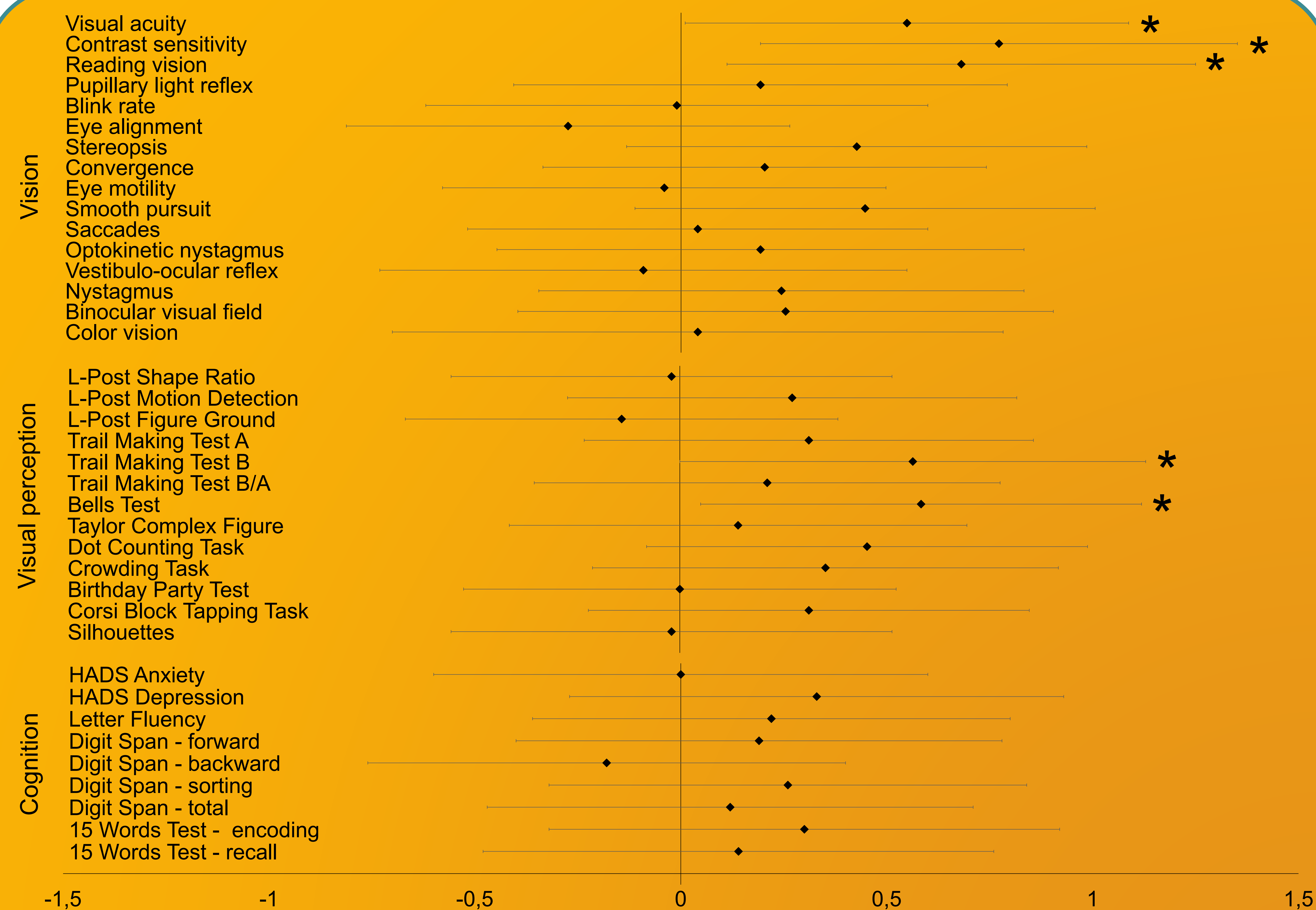


Fig. 1 Effect sizes (Hedges' g) and 95% confidence intervals of the differences in visual, visuo-perceptual and cognitive functions between people with Parkinson's disease with and without reading complaints. * Effect size > .5