Messungen der Augenbewegungen bei MKH-Kreuztest-Prismen, Teil 1

Was genau messen wir da eigentlich? Begrifflichkeiten neu interpretiert

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Literatur

[1] Howard IP. Perceiving in Depth; Basic Mechanisms. 1. Oxford, Oxford University Press; 2012.

[2] Kwiatkowski A, Eisenbarth W. Eye Tracking - Geschichte, Messtechniken und Modelle. Deutsche Optikerzeitung. 2016;3:OPTO 58-63.

[3] Gerling J, Ball M, Bömer T, Bach M, Kommerell G. Fixationsdisparation am Pola-Zeigertest: nicht repräsentativ für die Augenstellung unter natürlichen Sehbedingungen. Klinische Monatsblätter für Augenheilkunde. 1998: 212:226-33.

[4] Kromeier M, Schmitt C, Bach M, Kommerell G. [Prism correction in vision disparity based on the „H. J. Haase measurement and correction methodology"]. Klinische Monatsblätter für Augenheilkunde. 2002;219(12):859-61.

[5] Kromeier M, Schmitt C, Bach M, Kommerell G. [Do prisms according to Hans-Joachim Haase influence ocular prevalence?]. Klinische Monatsblätter für Augenheilkunde. 2002;219(12):851-7.

[6] Blythe HI, Liversedge SP, Joseph HS, White SJ, Findlay JM, Rayner K. The binocular coordination of eye movements during reading in children and adults. Vision Research. 2006;46(22):3898-908.

[7] Jainta S, Blythe HI, Liversedge SP. Binocular advantages in reading. Current biology: CB. 2014;24(5):526-30.

[8] Jainta S, Blythe HI, Nikolova M, Jones MO, Liversedge SP. A comparative analysis of vertical and horizontal fixation disparity in sentence reading. Vision Research. 2015;110(Pt A):118-27.

[9] Kirkby JA, Blythe HI, Drieghe D, Liversedge SP. Reading text increases binocular disparity in dyslexic children. PLoS One. 2011;6(11):e27105.

[10] Kirkby JA, Webster LA, Blythe HI, Liversedge SP. Binocular coordination during reading and non-reading tasks. Psychological bulletin. 2008;134(5):742-63.

[11] Liversedge SP, White SJ, Findlay JM, Rayner K. Binocular coordination of eye movements during reading. Vision Research. 2006;46(15):2363-74.

[12] Nikolova M, Jainta S, Blythe HI, Jones MO, Liversedge SP. Vergence responses to vertical binocular disparity during lexical identification. Vision Research. 2015;106:27-35.

[13] Heller D, Radach R. Eye movements in reading: Are two eyes better than one? In: Becker W, Deubel H, Mergner T, editors. Current oculomotor research: Physiological and psychological aspects. New York; Plenum Press: 1998.

[14] Nuthmann A, Beveridge MEL, Shillcock RC. A binocular moving window technique to study the roles of the two eyes in reading. Visual Cognition 2009;22(3-4):259-82

[15] Nuthmann A, Kliegl R. An examination of binocular reading fixations based on sentence corpus data. Journal of Vision. 2009;9(5):31 1-28.

[16] Jainta S, Dehnert A, Heinrich SP, Jaschinski W. Binocular coordination during reading of blurred and nonblurred text. Investigative Ophthalmology & Visual Science. 2011;52(13):9416-24.

[17] Jainta S, Hoormann J, Kloke WB, Jaschinski W. Binocularity during reading fixations: Properties of the minimum fixation disparity. Vision Research. 2010;50(18):1775-85.

[18] Jainta S, Jaschinski W. "Trait" and "state" aspects of fixation disparity during reading. Journal of Eye Movement Research. 2010;3(3):1-13.

[19] Jainta S, Jaschinski W. Individual differences in binocular coordination are uncovered by directly comparing monocular and binocular reading conditions. Investigative Ophthalmology & Visual Science. 2012;53(9):5762-9.

[20] Jainta S, Jaschinski W, Wilkins AJ. Periodic letter strokes within a word affect fixation disparity during reading. Journal of Vision. 2010;10(13):2.

[21] Jainta S, Kapoula Z. Dyslexic children are confronted with unstable binocular fixation while reading. PLoS One. 2011;6(4):e18694.

[22] Jainta S. Lesen – wie sich beide Augen bewegen und binokulare Vorteile zeigen. Optometrie. 2015;(1):57-60.

[23] Brautaset RL, Jennings JA. Measurements of objective and subjective fixation disparity with and without a central fusion stimulus. Med Sci Monit. 2006;12(2):MT1-4.

[24] Fogt N, Jones R. Comparison of the monocular occlusion and a direct method for objective measurement of fixation disparity. Optometry and Vision Science. 1997;74(1):43-50.

[25] Kertesz AE, Lee HJ. Comparison of simultaneously obtained objective and subjective measurements of fixation disparity. American Journal of Optometry and Physiological Optics. 1987;64(10):734-8.

[26] Simonsz HJ, Bour LJ. Covering one eye in fixation-disparity measurement causes slight movement of fellow eye. Documenta Ophthalmologica. 1991;78(3-4):141-52.

[27] Jaschinski W. Individual objective and subjective fixation disparity in near vision. PLoS One. 2017;12(1):e0170190.

[28] Jaschinski W, Jainta S, Hoormann J, Walper N. Objective versus subjective measurements of dark vergence. Ophthalmic and Physiological Optics. 2007;27:85-92.

[29] Jaschinski W, Jainta S, Kloke WB. Objective vs subjective measures of fixation disparity for short and long fixation periods. Ophthalmic and Physiological Optics. 2010;30(4):379-90.

[30] Schroth V, Joos R, Jaschinski W. Effects of Prism Eyeglasses on Objective and Subjective Fixation Disparity. PLoS One. 2015;10(10):e0138871.

[31] Svede A, Treija E, Jaschinski W, Krumina G. Monocular Versus Binocular Calibrations in Evaluating Fixation Disparity With a Video-Based Eye-Tracker. Perception. 2015;44(8-9):1110-28.

[32] Goersch H. Wörterbuch der Optometrie. Heidelberg: DOZ-Verlag Optische Fachveröffentlichung; 2001.

[33] Haase H-J. Zur Fixationsdisparation. Heidelberg: DOZ-Verlag Optische Fachveröffentlichungen; 1995.

[34] Haase H-J. Winkelfehlsichtigkeiten mit Fixationsdisparation. Heidelberg: DOZ-Verlag Optische Fachveröffentlichung 1999. 248 p.

[35] IVBS. Mess- und Korrektionsmethodik nach H.-J. Haase: Richtlinien zur Anwendung der MKH: Internationale Vereinigung für Binokulares Sehen; 2012.

[36] London R, Crelier RS. Fixation disparity analysis: sensory and motor approaches. Optometry (St Louis, Mo. 2006;77(12):590-608.

[37] Methling D. Bestimmen von Sehhilfen (Inhaltsverzeichnis). Stuttgart: Ferdinand Enke Verlag; 1992.

[38] Schmid L. Reaktionen des Vergenzsystems auf MKH-Prismen – eine methodische Pilotstudie. Berlin: Beuth Hochschule; 2017.

[39] Schroth V. MKH in Theorie und Praxis. Heidelberg: DOZ-Verlag; 2012.

[40] Wissenschaftlicher Rat D. Mannheim: Dudenverlag; 2006.

[41] Evans BJW. Pickwell's binocular vision anomalies. London: Butterworth; 2002 Jul.

[42] Mallett RJF. The investigation of heterophoria at near and a new fixation disparity technique. Optician. 1974;148:547-51.

[43] Sheedy JE, Saladin JJ. Validity of diagnostic criteria and case analysis in binocular vision disorders. In: Schor CM, Ciuffreda KJ, editors. Vergence Eye Movements: Basic and Clinical Aspects. Boston: Butterworths; 1983. p. 517-40.

[44] Ogle KN, Martens TG, Dyer JA. Oculomotor imbalance in binocular vision and fixation disparity. Philadelphia, PA: Lea & Febiger; 1967 May.

[45] Diepes H. Was ist Fixationsdisparation. Deutsche Optikerzeitung. 2001;10:42-8.

[46] Jaschinski W. Sehbeschwerden und Aspekte der Fixationsdisparität. Z prakt Augenheilkd. 2005;26:282-6.