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Sommario/riassunto	Binocular vision is achieved by five neurovisual systems originating in the retina but varying in their destination within the brain. Two systems have been widely studied: the retino-tectal or retino-collicular route, which subserves an expedient and raw estimate of the visual scene through the magnocellular pathway (Isa, 2002), and the retino-occipital or retino-cortical route, which allows slower but refined analysis of the visual scene through the parvocellular pathway (Espinosa & Stryker, 2012). But there also exist further neurovisual systems: the retino-hypothalamic, retino-pretectal, and accessory optic systems, which play a crucial role in vision though they are less understood ...The focus of this issue is to review the most recent findings in brain imaging and neurophysiology of binocular vision and coordination in humans and animals with frontally-placed eyes. The emphasis will be put on studies that enable transfer of knowledge toward visual training programs targeting binocular functional disorders (e.g., amblyopia) and visual field defects (e.g., hemianopia).