Attention and Amblyopia. An Approach by Way of Electro-Encephalography

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In connection with a paper last year in which it was shown that in the occipital response to light flashes photopic and scoto-pic components can be differentiated, further evidence is now discussed.

As a result of the findings in total achromatopsia and judging by the topographical differences in the occipital response of a normal testee, the hypothesis is advanced that the respective components represent the foveal and extra-foveal systems. Apparently paying attention to the light flash favours the foveal system at the cost of the extra-foveal system. To put it electrophysiologically, amblyopia would seem to be the same as looking without attention.

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Discussion

Wacirdenburg: For years we have known about complete and incomplete congenital achromatopsia. Are you of the opinion that in the complete forms some of the cones of the peripheral retina continue to function? In only three out of more than thirty cases was I able to observe any colour perception over large surfaces. None of the others had any.

van Balen: All the cases of achromatopsia we saw had some colour perception in the periphery (large surfaces).