appear as one, and it is this fictitious object, formed by the fusion of the two pictures by the apparatus itself, which the two eyes are able to fix in binocular vision.

When a person with normal sight looks through a stereoscope he is able to adjust it by means of his binocular vision so that the object appears as one.

In squint there is absence of binocular vision. It is doubtful whether adjustment is ever accurate, and the stereoscope fails as a means of treatment.

The binoscope, by presenting to both eyes in the central part of the field of vision, which is unscreened, the same actual objects, instead of the fictitious substitute employed in the stereoscope, induces binocular vision without difficulty and succeeds as a means of treatment. In using the binoscope the screened lateral parts of the field of vision bring about simultaneous vision with both eyes; and binocular vision of objects in the central unscreened part of it readily follows in most cases of squint, so that the squint at once disappears for the time, and its permanent disappearance is effected by systematic daily use. In a few cases, perhaps one in ten, there is diplopia at first, which the use of the binoscope distinguishes from binocular vision. A number of school children with squint, who were being treated by means of the amblyoscope, were thus tested by means of the binoscope. They showed a much larger percentage of diplopia. It was present in about half the cases tested. In squint, training with a separate picture for each eye thus appears to induce diplopia, not binocular vision.

FUNCTIONAL DIPLOPIA IN A SCHOOLBOY

BY

ALLISTER M. MACGILLIVRAY

SURGEON TO THE DUNDEE EYE INSTITUTION, ETC.

The following is an interesting and unusual case of duplication of letters, words and figures in a schoolboy, without any discoverable organic cause. As far as can be ascertained, no similar case has been reported, and no mention of the condition can be found in the text books of ophthalmology.

John D, aged 8 years, a healthy, highly intelligent boy, was brought by his mother for consultation on account of periodic attacks of double vision of some six months' duration. Latterly the attacks had recurred with greater frequency, the double vision
becoming more pronounced and inconvenient. On investigation it was discovered that the double vision was of a very unusual character. When asked to read the letters and figures of Snellen’s test types with the right eye alone, the patient proceeded to do so rapidly and without stumbling, but each letter was read twice, viz.: T, T; N, N; E, E; etc., the vision being 6/6. Precisely the same occurred when the right eye was covered up and the left used alone, the patient again reading T, T; N, N; E, E; etc., to 6/12. With both eyes open the letters and figures were again read duplicated, as had occurred when they were read with each eye separately, viz.: T, T; N, N; E, E; etc.

Reading from a book, the patient saw two words instead of one, each word standing clearly alongside the other, without overlapping. Until a short time before he had been able to read fluently and correctly by ignoring one of the images, but the double vision had become so marked that he was experiencing great difficulty in continuing to do this. His teacher reported that on a recent occasion when told to copy the figure 6 from the blackboard he had put two sixes on his slate instead of one. This appears to have been the only occasion when the double vision had made itself manifest to his teacher.

There was no suggestion of word or figure blindness and he was able to write easily to dictation. Any element of malingering was eliminated as far as possible by prolonged and searching tests.

The refraction was practically normal, there being only a low degree of hypermetropic astigmatism, equal in amount in each eye. Nothing abnormal, such as corneal nebulae, could be seen externally and the fundi were normal in all respects. The lenses were in their usual position, there being no trace of subluxation. The extrinsic muscles of each eye were in a state of orthophoria. The only abnormality that could be found was a definite red-green colour blindness.

No treatment was prescribed, but the child was assured that the trouble would completely disappear in a short time. The mother was warned on no account to discuss the double vision in any way with the patient, or in his presence. Six weeks later the child was again examined, when it was found that all trace of the double vision had disappeared. A year later he was re-examined. No recurrence of the trouble was reported. The vision of each eye was then 6/5.

In the absence of any discoverable organic cause, one was led to the conclusion that the condition was of a purely functional nature. It is impossible to say what the factor was that suggested the symptom to the child. As far as could be ascertained, no mention of double vision had ever been made in the boy’s presence, nor had he ever had any opportunity of reading about it.
FUNCTIONAL DIPLOPIA IN A SCHOOLBOY
Allister M. MacGillivray

doi: 10.1136/bjo.12.11.588

Updated information and services can be found at:
http://bjo.bmj.com/content/12/11/588.citation

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/