Disorders of Ocular Movement in a Case of Simultanagnosia

BY

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I. INTRODUCTION

In a previous paper (Luria, 1959), one of the present authors communicated a case in which marked disorders of "simultaneous perception" (simultanagnosia) resulted from bilateral occipital brain injury. As in earlier cases of the same type (Balint, 1909; Holmes and Horrax, 1919; Paterson and Zangwill, 1944; Hécaen and Ajuriaguerra, 1954) the patient was able to perceive only one object at a time irrespective of the angular size of its retinal image. This defect of perception was combined with severe impairment of oculomotor co-ordination—a kind of "optic ataxia"—and the patient was quite unable to perform manual operations based on the visual analysis of spatial relations. The question arises as to whether this "optic ataxia" is directly due to the perceptual derangement or whether it constitutes an independent executive disability. We shall attempt to answer this question in the present paper.

A simple method of photographic recording of eye movements was devised by one of the present authors (Yarbuss, 1961). A rubber bulb carrying a small mirror was attached to the cornea and a thin pencil of light thrown on to the mirror and reflected on to a sheet of photographic paper (fig. 1). This simple technique permits scanning movements of the eyes to be registered in a variety of everyday tasks, e.g. looking at a

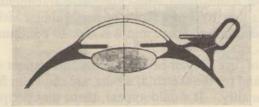


Fig. 1.—Method of recording eye movements.

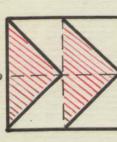
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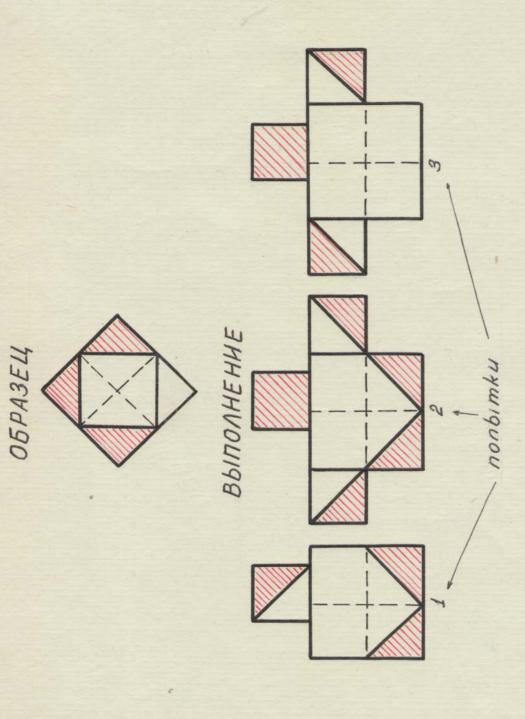




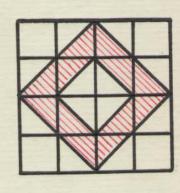


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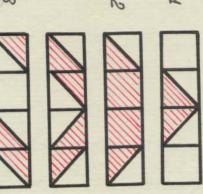
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