ter as a mathematical function whose variables are the states of the individual neurons and whose constants are to be obtained through a translation from neurohistological (and physiological) data. Attempts at such a translation were made in this laboratory for the cerebellar cortex (Braatenberg, '61; Braatenberg and Ocete, '30) and for the cerebral cortex of man (Braatenberg and Lauria, '30). It is in this spirit that we take up again the problem of local variation of fiber patterns in the cerebral cortex of man, in order to obtain some additional information for a theory of the function of the cortex.