

cited here. Of the 100 persons to whom the right disc appeared larger, 76 were right-handed, 8 ambidextrous, 16 left-handed. Of the 45 persons to whom the left disc appeared larger, 15 were right-handed, 3 ambidextrous, 27 left-handed. These results can not be considered final; but, they do seem to indicate a tendency to a relationship between the peripheral perception of size and right- and left-handedness.

Granted that such a difference in the perception of size does certainly exist between the central and peripheral parts of the retina, the sensory motive, so to call it, which in the discussion of the part played by the left hemisphere, seemed necessary to initiate right-handed movements, would be furnished. Objects situated in the right half of the field of vision of a left-hemisphered infant would, by appearing larger, attract its attention. The eyeballs would then turn, reflexly, to receive the attractive object on the fovea. Eye movements would, probably, lead to head movements, and head movements to arm movements. Just the reverse of this would happen with a right-hemisphered infant. The fact that the predominant use of the right hand is developed by trial and error, is against the assumption that there is a "natural prepotency in the paths to discharge into the right arm." If it were merely reflex, there would be no period of uncertainty in which both arms are used. A fact which supports the view suggested here is that the time (seven months) at which a pronounced right-handedness developed in Baldwin's¹ child was but little later than the time (five months) at which Raehlmann² found that an object was recognized when its image fell on the periphery of the retina.

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TERTIARY DEPOSITS OF NORTHEASTERN MEXICO

THE work done in the Tertiary deposits

¹ "Mental Development, Methods and Processes," p. 64.

² Cited, without reference to the original, by Schaefer, "Text-book of Physiology," Vol. II, p. 759.

along the Rio Grande border of Texas by Dr. R. A. F. Penrose, Jr., and myself, and described in the First Annual Report of the Geological Survey of Texas and in a later paper entitled "Geology of Southwestern Texas," has been extended southward during the past year by Professor W. F. Cummins as far as the Conchas River.

He finds that the same general divisions which we have described in Texas are easily recognizable for this entire distance of more than one hundred miles, but also finds that, while a large number of the familiar forms of the Texas fossils are found in the various divisions, there are others which were not recognized there. Among these is the occurrence of a *Venericardia*, which Dr. Dall states is allied to *potapacensis* of the Maryland Eocene, in beds that are stratigraphically the continuation of the Marine stage of the Texas section. A number of other new forms were also found, which have not as yet been studied.

The beds of the Fayette stage which are exposed on the Rio Grande between Carrizo and Roma extend southward to Mendez on the Conchas and are characterized by the large *Ostrea alabamensis* var. *contracta* Conrad and other forms.

The beds of the Frio stage which overlie the Fayette here, as farther north, are better exposed in this region than in Texas and carry a very distinctive fauna. Some of the forms collected at San Fernando on the Conchas River were examined by Dr. Dall, who writes that they comprise *Pecten*, *Arca*, *Clementia*, etc., and are with little doubt Oligocene. This series of beds, which Professor Cummins calls the San Fernando, was traced by him to the extreme southern limit of the Tertiary, some forty miles south of the mouth of the Soto Marina River.

Very few fossils were found in the Frio deposits in Texas and such as were determinable seemed to warrant its reference to the Eocene, but Professor Cummins's later discoveries show this to be incorrect and in place of being of Lower Claiborne age, it should be placed with the Oligocene.

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