

the fissure of Sylvius passes upwards and with only a slight inclination backwards on the cranial surface of the hemisphere, its length being regulated by the length of the Sylvian convolution which bounds it. In Man and Apes, more especially the Anthropoids, it is longer than in the Carnivora, and passes upwards and with a marked inclination backwards; its backward direction being more decided in Man than in the highest Apes.

Up to this point there does not seem to be much difficulty in finding a morphological correspondence between the fissures and convolutions in the brains of these orders of Mammals, but beyond this stage many difficulties undoubtedly present themselves. In the human brain, for example, the magnitude and direction of the convolutions of the frontal lobe, the fissure of Rolando, the parieto-occipital fissure, the definite occipital lobe lying behind that fissure, the calcarine fissure, the elongated convolutions of the temporo-sphenoidal lobe, and the convolutions of the insula are all characteristic features, which are repeated though in a less pronounced form in the brains of Apes except that in the latter the distinctness of the occipital lobe is more accentuated. In the Carnivora and Pinnipedia again the presence of three or four tiers of convolutions with their intermediate fissures surmounting the fissure of Sylvius, the existence of a crucial fissure, and also in many genera of a præcruciate fissure and ursine lozenge, are noticeable characteristics, and at first sight seem so divergent from the human arrangement as to be apparently irreconcilable with it.

In the Human cerebrum four elongated convolutions running obliquely from above downwards and forwards intervene between the fissure of Sylvius on the cranial surface and the gyrus and lobus hippocampi on the tentorial surface; viz., the superior, middle, and inferior temporo-sphenoidal convolutions, and the occipito-temporal convolution. In the Ape's brain the differentiation of the three temporo-sphenoidal convolutions is more or less distinct in various species, but the occipito-temporal convolution is frequently not differentiated from the inferior temporo-sphenoidal gyrus.

The apparently corresponding region in the brain of the domestic Cat is short and stunted, but in the larger brain of the Tiger it is more elongated; in the Dog's brain it is a little longer than in the Cat; in *Phoca*, *Macrorhinus*, and *Trichechus* it is also well marked and the convolutions are tortuous. In these Carnivora and Pinnipedia three convolutions lie behind the fissure of Sylvius on the cranial aspect of the hemisphere, for they are almost vertical in direction and the most posterior forms the boundary of the hemisphere at the junction of its cranial and tentorial surfaces. These convolutions are the posterior limbs of the tiers of convolutions which surmount and arch above the fissure of Sylvius. In the larger Carnivora and Pinnipedia a fourth convolution, varying in its degree of differentiation, but not recognisable in the brains of the smaller Carnivora, is situated on the tentorial surface peripherally to the hippocampal convolution, and separated from it by the splenial (limbic) fissure, which fissure is usually bridged by the retrolimbic convolution. In their relations to the Sylvian fissure on the one hand, and