

has become still freer than in Lizards; and secondly, the head moves independently of the neck, which was not yet the case in Lizards. With this structural condition, the foundation is laid for a higher and more conscious relation to the surrounding mediums than is observed in Lizards. The ability to move the head freely upon the neck furnishes a larger horizon for the senses, which are situated in the head, and by this a more extensive and more accurate perception of the surrounding world may be obtained than we can suppose in those animals in which the neck is buried in the body, as in Fishes and Snakes, or in which the head at least is buried in the neck, as in Lizards. But even the legs, which, as in Lizards, seem to be subservient only to locomotion, perform in addition, in Turtles, functions which we would hardly suppose in these animals. Professor Jeffries Wyman had once the rare opportunity of watching two *Chrysemys picta* while making love, and he saw the male caressing and patting the head of the female with its fore feet for several minutes. Thus among Reptiles the fore feet have become, in Turtles, organs for sympathetic motions; but we are not aware how far this is extended to the whole order. Moreover, the voice of Turtles is superior to that of Lizards, which are only able to emit that hissing sound which is common to all Reptiles.

In conformity with this higher psychical endowment of the Turtles, their brain is much more developed than in the other Reptiles, particularly the large hemispheres.¹ Still it is true, that Turtles are in some respects more insensible than other Reptiles, or at least than Lizards. They resist hunger and thirst, and the effect of wounds, easier than Lizards. This shows, no doubt, a slower process of change in the materials of which the body is built up, and accordingly also a lower vital energy generally. But, on the other hand, we must not forget that our observations of the habits of Turtles have for the most part been made upon individuals kept in captivity. If we walk along our ponds, and watch our *Emydoidæ*, sunning themselves on the shore, or on logs floating upon the water, they are by no means so slow and lazy as they are so generally supposed to be. They may, on the contrary, be seen attentively looking around and stretching out their neck to the utmost, as if listening. At the slightest noise of our steps, and with a quick motion of their paddles, they disappear under the surface of the water. If, now, in captivity, the same animal becomes more or less awkward and slow, we ought to remember, that the higher an animal stands, the more it feels the privation of its liberty; and my long experience with Turtles has satisfied me that they do feel the change, when confined in narrow enclosures.

¹ See above, Sect. 8, p. 274.