

I need not stay to point out how extremely arbitrary every part of this scheme is ; and how complex its machinery would be, even if it did account for the facts. It may be sufficient to observe, as others have done,<sup>7</sup> that the capacity of change, and of being influenced by external circumstances, such as we really find it in nature, and therefore such as in science we must represent it, is a tendency, not to improve, but to deteriorate. When species are modified by external causes, they usually degenerate, and do not advance. And there is no instance of a species acquiring an entirely new sense, faculty, or organ, in addition to, or in the place of, what it had before.

Not only, then, is the doctrine of the transmutation of species in itself disproved by the best physiological reasonings, but the additional assumptions which are requisite, to enable its advocates to apply it to the explanation of the geological and other phenomena of the earth, are altogether gratuitous and fantastical.

Such is the judgment to which we are led by the examination of the discussions which have taken place on this subject. Yet in certain speculations, occasioned by the discovery of the *Sivatherium*, a new fossil animal from the Sub-Himalaya mountains of India, M. Geoffroy Saint-Hilaire speaks of the belief in the immutability of species as a conviction which is fading away from men's minds. He speaks too of the termination of the age of Cuvier, "la clôture du siècle de Cuvier," and of the commencement of a better zoological philosophy.<sup>8</sup> But though he expresses himself with great animation, I do not perceive that he adduces, in support of his peculiar opinions, any arguments in addition to those which he urged during the lifetime of Cuvier. And the reader<sup>9</sup> may recollect that the consideration of that controversy led us to very different anticipations from his, respecting the probable future progress of physiology. The discovery of the *Sivatherium* supplies no particle of proof to the hypothesis, that the existing species of animals are descended from extinct creatures which are specifically distinct : and we cannot act more wisely than in listening to the advice of that eminent naturalist, M. de Blainville.<sup>10</sup> "Against this hypothesis, which, up to the present time, I regard as purely gratuitous, and likely to turn geologists out of the sound and excellent road in which they now are, I willingly raise my voice, with the most absolute conviction of being in the right."

<sup>7</sup> Lyell, B. III. c. iv.

<sup>8</sup> *Compte Rendu de l'Acad. des Sc.* 1837, No. 3, p. 81.

<sup>9</sup> See B. XVII. c. vii.

<sup>10</sup> *Compte Rendu*, 1837, No. 5, p. 168.