

it be called soul, reason, or instinct, it presents in the whole range of organized beings a series of phenomena closely linked together; and upon it are based not only the higher manifestations of the mind, but the very permanence of the specific differences which characterize every organism. Most of the arguments of philosophy in favor of the immortality of man apply equally to the permanency of this principle in other living beings. May I not add, that a future life, in which man should be deprived of that great source of enjoyment and intellectual and moral improvement which result from the contemplation of the harmonies of an organic world, would involve a lamentable loss, and may we not look to a spiritual concert of the combined worlds and all their inhabitants in presence of their Creator as the highest conception of paradise?

## SECTION XVIII.

### METAMORPHOSES OF ANIMALS.

The study of embryology is of very recent date; the naturalists of the past century, instead of investigating the phenomena accompanying the first formation and growth of animals, were satisfied with vague theories upon reproduction.<sup>1</sup> It is true

taneously and with logical sequence in accordance with these perceptions. There is a vast field open for investigation in the relations between the voice and the actions of animals, and a still more interesting subject of inquiry in the relationship between the cycle of intonations which different species of animals of the same family are capable of uttering, which, as far as I have as yet been able to trace them, stand to one another in the same relations as the different, so-called, families of languages (SCHLEGEL, (Fn.,) Ueber die Sprache und Weisheit der Indier, Heidelberg, 1808, 1 vol. 8vo. — HUMBOLDT, (W. v.,) Ueber die Kawi-Sprache, auf der Insel Java, Berlin, 1836-39, 3 vols. 4to. Abh. Ak. d. Wissensch. — STEINTHAL, (IL.,) Grammatik, Logik und Psychologie, Berlin, 1855, 1 vol. 8vo.) in the human family. All the *Canina* bark; the howling of the wolves, the barking of the dogs and foxes, are only different modes of barking, comparable to one another in the same relation as the monosyllabic,

the agglutinating, and the inflecting languages. The *Felidæ* mew: the roaring of the lion is only another form of the mewing of our cats and the other species of the family. The *Equina* neigh or bray: the horse, the donkey, the zebra, the dromedary, do not differ much in the scale of their sounds. Our cattle, and the different kinds of wild bulls, have a similar affinity in their intonations; their lowing differs not in kind, but only in the mode of utterance. Among birds, this is, perhaps, still more striking. Who does not distinguish the note of any and every thrush, or of the warblers, the ducks, the fowls, etc., however numerous their species may be, and who can fail to perceive the affinity of their voices? And does this not indicate a similarity also in their mental faculties?

<sup>1</sup> BUFFON, (G. L. LECLERC DE,) Discours sur la nature des Animaux, Genève, 1754, 12mo.; also in his Oeuvres complètes, Paris, 1774-1804, 36 vols. 4to.