

Struthers gives the following instance: in the first generation an additional digit appeared on one hand; in the second, on both hands; in the third, three brothers had both hands, and one of the brothers a foot affected; and in the fourth generation all four limbs were affected. Yet we must not over-estimate the force of inheritance. Dr. Struthers asserts that cases of non-inheritance and of the first appearance of additional digits in unaffected families are much more frequent than cases of inheritance. Many other deviations of structure, of a nature almost as anomalous as supernumerary digits, such as deficient phalanges,²⁹ thickened joints, crooked fingers, &c., are, in like manner, strongly inherited, and are equally subject to intermission, together with reversion, though in such cases there is no reason to suppose that both parents had been similarly affected.³⁰

Additional digits have been observed in negroes as well as in other races of man, and in several of the lower animals, and have been inherited. Six toes have been described on the hind feet of the newt (*Salamandra cristata*), and are said to have occurred with the frog. It deserves notice, that the six-toed newt, though adult, preserved some of its larval characters; for part of the hyoidal apparatus, which is properly absorbed during the act of metamorphosis, was retained. It is also remarkable that in the case of man various structures in an embryonic or arrested state of development, such as a cleft-palate, bifid uterus, &c., are often accompanied by polydactylism.³¹ Six toes on the hinder feet are known to have been inherited for three generations of cats. In several breeds of the fowl the hinder toe is double, and is generally transmitted truly, as is well shown when Dorkings are crossed with common

²⁹ Dr. J. W. Ogle gives a case of the inheritance of deficient phalanges during four generations. He adds references to various recent papers on inheritance, 'Brit. and For. Med.-Chirurg. Review,' Ap. 1872.

³⁰ For these several statements, see Dr. Struthers, 'Edinburgh New Phil. Journal,' July, 1863, especially on intermissions in the line of descent. Prof. Huxley, 'Lectures on our Knowledge of Organic Nature,' 1863, p. 97. With respect to inheritance, see Dr. Prosper Lucas, 'L'Hérédité Nat.,' tom. i. p. 325. Isid. Geoffroy, 'Anom.,' tom. i. p. 701. Sir A. Carlisle, in 'Phil. Transact.,' 1814, p. 94. A. Walker, on 'Intermarriage,' 1838, p. 140, gives a case of five generations; as does Mr. Sedgwick, in 'Brit. and Foreign Medico-Chirurg. Review,'

April, 1863, p. 462. On the inheritance of other anomalies in the extremities, see Dr. H. Dobell, in vol. xlvi. of 'Medico-Chirurg. Transactions,' 1863; also Mr. Sedgwick, in op. cit., April, 1863, p. 460. With respect to additional digits in the negro, see Prichard, 'Physical History of Mankind.' Dr. Dieffenbach ('Jour. Royal Geograph. Soc.,' 1841, p. 208) says this anomaly is not uncommon with the Polynesians of the Chatham Islands; and I have heard of several cases with Hindus and Arabs.

³¹ Meckel and Isid. G. St. Hilaire insist on this fact. See, also M. A. Roujou, 'Sur quelques Analogies du Type Humain,' p. 61; published, I believe, in the 'Journal of the Anthropologist, Soc. of Paris,' Jan. 1872.