

in his 'Materials for the Study of Variation,' a remarkable specimen of the historical treatment of the problem. But the aspect we are at present specially interested in is the other one which, in the course of Mr Galton's studies, has presented itself to him with increasing clearness, namely, the bearing which the general laws of averages and statistics have on the facts of inheritance. Thus, in his second main contribution to the subject, which appeared in 1889, twenty years after the earlier work, the statistical problem comes out much more clearly, and quite separated from the mechanical or the historical one. The hypothesis of Pangenesis is retained only as a general scheme which suggested "the idea though not the phrase of particulate inheritance." It was felt to be no longer necessary, for the purpose of the problem, "to embarrass ourselves with any details of theories of heredity beyond the fact that descent either was particulate or acted as if it were so."¹ And what is meant by "particulate" (*i.e.*, "bit by bit") is illustrated in the following expressive manner:² "Many of the modern buildings in Italy are historically known to have been built out of the pillaged structures of older days. Here we may observe a column or a lintel serving the same purpose for a second time, and perhaps bearing an inscription that testifies to its origin; while as to the other stones, though the mason may have chipped them here and there and altered their shape a little, few if any came direct from the quarry." "This simile gives a rude though true idea of the exact meaning of Particulate Inheritance—namely, that each piece of the new structure

41.
Mr Bateson's
historical
treatment.

42.
"Particulate"
descent.

¹ 'Natural Inheritance,' p. 193.

² *Ibid.*, p. 8.