

PSYCHIC GRADATIONS

chology of the last forty years has entirely dissipated. The higher vertebrates (especially those mammals which are most nearly related to man) have just as good a title to "reason" as man himself, and within the limits of the animal world there is the same long chain of the gradual development of reason as in the case of humanity. The difference between the reason of a Goethe, a Kant, a Lamarck, or a Darwin, and that of the lowest savage, a Veddah, an Akka, a native Australian, or a Patagonian, is much greater than the graduated difference between the reason of the latter and that of the most "rational" mammals, the anthropoid apes, or even the papiomorpha, the dog, or the elephant. This important thesis has been convincingly proved by the thoroughly critical comparative work of Romanes and others. We shall not, therefore, attempt to cover that ground here, nor to enlarge on the distinction between the reason and the intellect; as to the meaning and limits of these concepts philosophic experts give the most contradictory definitions, as they do on so many other fundamental questions of psychology. In general it may be said that the process of the formation of concepts, which is common to both these cerebral functions, is confined to the narrower circle of concrete, proximate associations in the intellect, but reaches out to the wider circle of abstract, more comprehensive groups of associations in the work of reason. In the long gradation which connects the reflex actions and the instincts of the lower animals with the reason of the highest, intellect precedes the latter. And there is the fact, of great importance to our whole psychological treatise, that even these highest of our mental faculties are just as much subject to the laws of heredity and adaptation as are