

have previously occurred, is merely a psychological expression of the psychological fact that lines of discharge become more and more permeable by use.

We thus see that the most fundamental of physiological principles—the association of ideas—is merely an obverse expression of the most fundamental of neurological principles—reflex action; and that such, in general terms, is the fact, seems to be proved beyond question by such instances as those above given of the sleeping waiter and Dr. Abercrombie's unconscious patient, &c.; for such cases prove that actions originally due to a conscious association of ideas may, by a sufficiently long course of ganglionic instruction, cease to be conscious actions, and therefore become in no way distinguishable from reflex actions.*

But the proof of the fundamental correlation between ganglionic action and mental action does not end even here. There is another line of evidence which, although perhaps not quite so definite, nevertheless seems to me most cogent, and even more interesting than the considerations already adduced. If we take ideation to be in the same sense an index of the higher or more complex nervous processes, as muscular movement is of the lower or less complex, we shall find evidence to show that the development of ideation, or mental evolution, implies a further and continuous development of the corresponding nervous processes, which is precisely the same in kind as that which on the lower plane (that of muscular movement) has led to the advancing development of muscular co-ordination. In other words, if we consent to change the index from muscles to ideas, we shall find evidence that the method of nervous evolution has throughout been uniform; we shall find that the progressive elaboration of nervous structures—which in the one case has found expression in the growing complexity of the muscular system, and in the other case has been reflected in the advancing phases of mental evolution—we shall find that this progressive elaboration has throughout been pervaded by the same principles of development.

* A good instance of this may be found in the fact that men always bring their knees together in order to catch a small falling object, such as a coin, while women always spread their knees apart. The reason of course is that the difference of dress has led to a difference of organized habit—the habit in each case having been originally due to intelligent adjustment, but now scarcely distinguishable from a reflex.