

results. Really it is only infinitely small quantities that we are able to consider differentials or proportional to each other; while by the law of growth, arrived at by Weber, they are shewn not to be proportional. This argument adverse to Fechner's formula, is ably presented by M. Delboeuf. Another objection is brought, also, to the doctrine of "threshold." It is claimed that there is not a constant threshold for any of the senses, but that the minimum of sensation varies with the condition of the organism, the concentration of attention, etc. If this criticism should be shewn, however, to be valid, it would still be possible to establish a table of variations or a co-efficient of "personal equation" for individuals, and still preserve the principle of Weber. The objection formerly drawn from the fatigue of the organ under prolonged experiment, is now met by the principle called by Fechner, the "parallel law": if we perform the experiments at very close time intervals, we may consider the degree of exhaustion as approximately the same for any two successive excitations. Any modification, therefore, which either excitation undergoes from the element of fatigue, is corrected in the ratio between that and the other excitation. For example, the smallest perceptible difference DA above an excitation A , reached by adding a new excitation B , is expressed by the fraction $\frac{B}{A}$: but any modification which

affects both B and A to an equal degree does not alter their ratio.

The objection that Weber's law is as yet of very limited range loses its force in the presence of recent work. The senses to which it applies are the most accessible: but efforts are every day more successful in making the apparatus of experiment available also for the more delicate and involved sensations. It should be remembered that all research in physiology requires patient and prolonged experiment; indeed it is remarkable that so much positive work has already been done in this connection.