(for instance, the intestines, blood-vessels) contract in two directions, in length and in breadth, the fibres of the muscles arrange themselves only in these two directions. In like manner, also, the more delicate structure of the nerves, the blood-vessels, the glands, etc., are adapted in the most suitable manner for their peculiar activity. Looked at from a purely mechanical point of view, the relations of their structure appear to be arrangements of the most perfect design for a given purpose that can be conceived; and yet they have been produced without any pre-ordained purpose, —in fact, in a purely mechanical manner, by means of the peculiar activity of the organs themselves in connection with their functional stimulus.

The very important principle of the functional selfformation of suitable parts, which Roux has explained so clearly, shows us that the actual, existing suitableness of the internal structure of the body has to be traced back to *teleological mechanism*. But even this can again be explained by the principle of *selection*; not, however, in Darwin's sense of the word, that it is produced by the struggle for existence between independent individuals, but in the sense in which Roux uses the word, and according to which the struggle is continually active in all the parts of the single organism.

Hence the selection of cells, which according to Roux takes place everywhere in the tissues, might be termed *Cellular Selection*, in opposition to the *Personal Selection* which Darwin first pointed out between independent individuals. The former principle would stand in the same relation to the latter as Virchow's Cellular Pathology stands to Personal Pathology, or my Cellular Psychology to Per-