

SECT. IV.
OF THE IMPROVEMENT OF MEMORY.
ANALYSIS OF THE PRINCIPLES ON WHICH
THE CULTURE OF MEMORY DEPENDS.

Dugald Stewart (1753 - 1828)

Note: this short insightful excerpt about human memory is taken from the 1877 edition of the Scots philosopher Dugald Stewart's multi-volume work The Elements of the Philosophy of the Human Mind. This part of Stewart's work was originally published in 1793, and is available as part of the Google-books project. Because few researchers today know of Stewart's work and its many insightful observations on human cognition, I thought it would be useful to provide this brief sample.

Robert Sekuler, Brandeis University (vision@brandeis.edu)

The improvement of which the mind is susceptible by culture is more remarkable, perhaps, in the case of Memory than in that of any other of our faculties. The fact has been often taken notice of in general terms, but I am doubtful if the particular mode in which culture operates on this part of our constitution has been yet examined by philosophers with the attention which it deserves.

Of one sort of culture, indeed, of which memory is susceptible in a very striking degree, no explanation can be given, I mean the improvement which the original faculty acquires by mere exercise; or, in other words, the tendency which practice has to increase our natural facility of association. This effect of practice upon the memory seems to be an ultimate law of our nature; or rather, to be a particular instance of that general law, that all our powers, both of body and mind, may be strengthened by applying them to their proper purposes.

Besides, however, the improvement which memory admits of, in consequence of the effects of exercise on the original faculty, it may be greatly aided in its operations by those expedients which reason and experience

suggest for employing it to the best advantage. These expedients furnish a curious subject of philosophical examination: perhaps, too, the inquiry may not be altogether without use; for although our principal resources for assisting the memory be suggested by nature, yet it is reasonable to think that in this, as in similar cases, by following out systematically the hints which she suggests to us, a farther preparation may be made for our intellectual improvement.

Every person must have remarked, in entering upon any new species of study, the difficulty of treasuring up in the memory its elementary principles, and the growing facility which he acquires in this respect as his knowledge becomes more extensive. By analyzing the different causes which concur in producing this facility, we may perhaps be led to some conclusions which may admit of a practical application.

1. In every science, the ideas about which it is peculiarly conversant are connected together by some particular associating principle; in one science, for example, by associations founded on the relation of cause and effect; in another, by associations founded on the necessary relations of mathematical truths; in a third, on associations founded on contiguity in place or time. Hence one cause of the gradual improvement of memory with respect to the familiar objects of our knowledge; for whatever be the prevailing associating principle among the ideas about which we are habitually occupied, it must necessarily acquire additional strength from our favourite study.

2. In proportion as a science becomes more familiar to us, we acquire a greater command of attention with respect to the objects about which it is conversant; for the information which we already possess gives us an interest in every new truth and every new fact which have any relation to it. In most cases, our habits of inattention may be traced to a want of curiosity; and therefore such habits are to be corrected, not by endeavouring to force the attention in particular instances, but by gradually learning to place the ideas which we wish to remember in an interesting point of view.

3. When we first enter on any new literary pursuit, we are unable to make a proper discrimination in point of utility and importance among the ideas which are presented to us; and by attempting to grasp at everything, we fail in making those moderate acquisitions which are suited to the limited powers of the human mind. As our information extends, our selection becomes more judicious and more confined; and our knowledge of useful and connected truths advances rapidly, from our ceasing to distract the attention

with such as are detached and insignificant.

4. Every object of our knowledge is related to a variety of others; and may be presented to the thoughts, sometimes by one principle of association, and sometimes by another. In proportion, therefore, to the multiplication of mutual relations among our ideas, (which is the natural result of growing information, and in particular, of habits of philosophical study,) the greater will be the number of occasions on which they will recur to the recollection, and the firmer will be the root which each idea, in particular, will take in the memory.

It follows, too, from this observation, that the facility of retaining a new fact or a new idea will depend on the number of relations which it bears to the former objects of our knowledge; and, on the other hand, that every such acquisition, so far from loading the memory, gives us a firmer hold of all that part of our previous information with which it is in any degree connected.

It may not, perhaps, be improper to take this opportunity of observing, although the remark be not immediately connected with our present subject, that the accession made to the stock of our knowledge, by the new facts and ideas which we acquire, is not to be estimated merely by the number of these facts and ideas considered individually, but by the number of relations which they bear to one another, and to all the different particulars which were previously in the mind; for “new knowledge,” as Mr. Maclaurin has well remarked, “does not consist so much in our having access to a new object, as in comparing it with others already known, observing its relations to them, or discerning what it has in common with them, and wherein their disparity consists: and therefore, our knowledge is vastly greater than the sum of what its objects separately could afford; and when a new object comes within our reach, the addition to our knowledge is the greater, the more we already know; so that it increases, not as the new objects increase, but in a much higher proportion.”

5. In the last place, the natural powers of memory are, in the case of the philosopher, greatly aided by his peculiar habits of classification and arrangement. As this is by far the most important improvement of which memory is susceptible, I shall consider it more particularly than any of the others I have mentioned.

The advantages which the memory derives from a proper classification of our ideas, may be best conceived by attending to its effects in enabling us to conduct with ease the common business of life. In what inextricable

confusion would the lawyer or the merchant be immediately involved, if he were to deposit in his cabinet promiscuously the various written documents which daily and hourly pass through his hands?