

Dreiser, Theodore. "The Training of the Senses." Unpublished manuscript (University of Pennsylvania, Annenberg Rare Book & Manuscript Library, Theodore Dreiser Collection, Folder 12433). Reprinted with the permission of the Trustees of the University of Pennsylvania. Edited to correct a minor factual error.

THE TRAINING OF THE SENSES **Theodore Dreiser.**

In science and philosophy, there has always existed the faith that mind is illimitable and that the senses are capable of much greater development. This thought has heretofore lingered in the realm of speculation like a fascinating will-o'-wisp, leading the scientific worker most steadily on. But now there comes the individual who declares directly for the proof of this wonderfully fascinating dream and calls mankind to witness that the senses can be educated to a much higher degree of accuracy. He is ready to avow *that* the method is even now at hand, and, in proof, he submits a system, which, for its educational value and broad scientific illumination, is one of the most fascinating demonstrations of brain power that the world has ever seen.

The individual who makes this interesting assertion, and submits the proof, is Prof. Elmer Gates, the head of the Gates Laboratory of Psychology and Psychurgy at Washington, an institution which is entirely unique and individual in the world of science. We have, the able investigator declares at least nine, instead of five senses, and these may all be separately and rapidly trained to an acuteness and power of discrimination hitherto unknown. The greatest pianist, the most delicate painter, he who can astound the senses by swift jugglery or who possesses any marvelous power in the sensory realm is but the forerunner—the chance example of what the commonest mortal may some day be, and do, but with an acuteness higher than possessed by anyone now living. He declares that it is necessary only to show the method by which the separate senses of the mind shall be distinguished and reached with special training, and the greatest results can be readily accomplished. He is ready to demonstrate that this discrimination has already been made and he has proved that the senses so discriminated can be rapidly sharpened.

Perhaps the best proof that nine senses have been recognized, one distinctly from the other, is contained in the method adapted to reach and train each separately. Everyone knows that hearing, seeing, tasting and smelling constitute four distinct senses, but it is

not so generally known that touch comprises the separate senses of touch, pressure, warmth and cold, constituting four senses instead of one. To this list we must add that of muscular feeling, making nine senses of value in observing objects scientifically. The joint sensations, the sensations of tickling, etc., are not deemed of sufficient importance to be trained. Each one of these nine senses enumerated are, he declares, just as important in a complete course of training, as any of the others and should be as carefully discriminated between, since the whole intellectual progress of the race depends primarily on this perfect sensory development.

"For," he says, "if the sensory data are true — that is, if they are accurate and complete, then, out of them may arise an accurate intellectual development of images, concepts, ideas and thoughts; and out of a normal intellectual development will arise normal emotions; and out of true knowledge and normal emotions will arise normal motives, motives which, when carried out into conduct, lead to desirable results. False knowledge, abnormal emotions, all result from the false or weak registration of sensations, images, concepts and ideas."

In the laboratory at Washington is a small and very simple device, composed of a pulley and cord, which is used not only to detect, *but* train one of the senses, namely, that of the feeling: of muscular energy. This instrument is known as the Myergesthesiometer, and is calculated to accurately measure the mind's power to discriminate differences in the feeling of muscular energy which accompany slight differences in the dynamic energy required to move the lever or string. The pupil takes hold of the handle and repeatedly pulls the cord, which unwinds from a pulley. Owing to the nature of the mechanism, the pull requires a uniform amount of energy throughout the whole length of the motion, and it is by moving this cord to and fro that the pupil first becomes aware of the energy-feeling of muscular motion as distinguished from the speed-feeling or the direction-feeling of muscular movement. This is so because in this device the energy-sense is not confused with the speed-sense or anything else.

In other devices for measuring muscular energy, the faster you move a given weight, the more energy is required to move it; hence, muscular energy-feeling cannot be tested with springs or elastic cords, because it would be necessary either to measure the speed or to move the arm at an absolutely uniform speed, which is difficult. Besides, springs become harder to move as they become more and more tightly stretched. With this instrument, however; which requires a uniform amount of energy throughout the entire motion, at any speed the student may feel *energy-effort* without noticing speed-effort and without increase or decrease—a stable, actual thing, steadily repeated and impressed. By the variation of

