

where such researches as may be considered desirable will be pursued by certain of the members.

7. To publish the *Annales de l'Institut Psychologique International de Paris*, which will comprise a summary of the work in which members of the Institute have taken part, and which may be of a character to contribute to the progress of the science.

The foregoing sketch is but an outline of the plan and is subject to modification. The site of the Institute will be in Paris, the office of the secretary being in the Hotel des Sociétés Savantes, 28 rue Serpente. All psychological and psychical societies are requested to enter into relation with the Institute, and readers are requested to forward to the secretary, M. Youriévitich, the names of all people who take an interest in these subjects. The International Society which will support the Institute will consist of three classes of members: (1) Founders, (2) Donors, and (3) Ordinary Members; the founders consisting of members who subscribe 10,000 francs or more, the donors consisting of members who subscribe 1,000 francs or more or pay an annual subscription of 100 francs or more, and the ordinary members consisting of those who pay an annual subscription of 20 francs.

Dr. Morton Prince, of the City Hospital, Boston, has undertaken to organise the American branch.

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A NEW PHILOSOPHICAL WORK BY KURD LASSWITZ.¹

Dr. Lasswitz is known as a philosophical and scientific writer of both ingenuity and talent, and his newest contribution to a popular theory of the world and conduct will doubtless render his name as familiar to the general reading public of Germany as it has been made in science by his well-known history of atomism. The book is made up of some twenty-six short chapters. The first three chapters are historical in character and bear the titles: "The Discovery of Law," "From the Soul of the World to the Ether of the World," and "The Soul of the World and Natural Law." In the latter, the author's theory is roughly delineated, and the twenty chapters following develop the same. These chapters treat of such subjects as nature's glassy essence, objectivity and subjectivity, consciousness and nature, energy, physical and psychical parallelism, the law of the threshold, the sentiment of freedom, personality, the idea of freedom, laws and ideas, the notion of adaptiveness, the boundaries of feeling, religion and ethics, religion and nature, the end of the world, the possibility of error, etc. Three other articles on the more volatile subjects of dreams and mysticism are added.

By "realities" (*Wirklichkeiten*) Dr. Lasswitz understands conditions that are *effective*, the German word for realities being synonymous with effectiveness. These conditions are such as determine things to be as they are, that determine the power of the thinking, willing, and feeling human intellect to be what it is, while wishing itself to be otherwise and imagining other states of things. The various domains of realities make, support, order—and even confound—our life. It is these domains that we must seek and sunder, keeping them separate as to the value of their realities, discovering our self again in their unity and collectivity, understanding our life by reference to the idea of the life of humanity at large, and by a knowledge of that civilisation which is rendered intelligible only by its being conceived as an aim in itself.

¹ *Wirklichkeiten. Beiträge zum Weltverständnis.* Von Kurd Lasswitz. Berlin: Verlag von Emil Felber. 1900. Pages, 440. Price, 5 marks.

This union in the idea of humanity by separation of the effective real laws of the world was, according to Dr. Lasswitz, accomplished by the German thinkers of the end of the eighteenth century. But there is no living person at the end of the nineteenth century whose creative genius is able to give to critical thought the stamp and faculty of directive moving power. This cannot be done by aphorisms or ingenious intellectual pleasantries; neither can it be effected by fettering the souls of men by authority. The freedom of the human intellect can be attained and fostered only by the systematic advancement of reason, and it is our own thought in which we must learn to have unbounded confidence. And so each of us must struggle to acquire so far as he can the inheritances which have been handed down from our fathers, and must rediscover and repossess it amid the boundless accumulations of materials which the passing century has amassed.

The main philosophical problem for Dr. Lasswitz is the relation of Nature to the individual mind. How do I get at the Nature which I experience? Am I myself that Nature? How does it happen then that I cognise it as something different from myself?

The solution is in part found in the familiar psychological law of the threshold of excitation and the doctrine of physical and psychical parallelism. "The least limit which must be reached in order to produce a modification of the organic system accompanied by consciousness, is called the threshold of excitation. The threshold varies in magnitude for different sense-organs and for different excitations, as for sound, light, heat, pressure, etc., and it even varies with individuals and with their moods and conditions. If we compare two different stimuli, each of which alone is perceptible, for example, a pressure of thirty and of thirty-five grammes exerted on the palm of the hand, we shall not notice that the two stimuli are different. The difference between the two must reach a certain magnitude (in our example, some ten grammes), before we are aware that we are dealing with two different excitations. The least limit in this case is called the threshold of change of excitation. It is generally proportional to the magnitude of the stimuli, so that, for example, in order to perceive any increase in a pressure of three hundred grammes, the pressure must be augmented to four hundred grammes. These two experimental facts, the existence of the threshold of excitation and of the threshold of change of excitation, are together called the law of the threshold."

These conclusions then follow: "The individual mind is a system which, by the law of the threshold, is cut off as a finite unity from the infinite workings of the world. The extremely small rise in temperature, for example, which the moon produces, is physically determinable, yet no man is ever directly aware of it. Doubtless it has its effects upon our body as much as upon any other; but it is not present as sensation. It thus happens that we are finite minds which, as compared with a universal consciousness, have experience of fragments of the world only. In this manner our perception is restricted, more unsafe, and erring. In this manner the content which we term our ego, is undetermined. In this manner nature becomes an infinite problem for us, whose broad conformability to law we can never approach more than approximately. In this manner our subjective knowledge of nature is distinguished from objective conformability to law, which we presuppose in nature. But on this very fact, which shuts us off as finite minds from the universe, hinges our existence as conscious beings. The law of the threshold protects us against the constant and endless inundations of stimuli that flood the universe. In the structure of the organism they are gathered together into a law-determined system which by its very restrictedness is able to be preserved as a dis-

crete unit, such as has been developed by the interaction of cosmic stimuli. In virtue of all these we are an ego, and recognise ourselves as such in contrast to nature.

"Here, too, the difference between nature and individual mind as a mere difference of contents is emphasised. In nature we have a content in which each part is determined by all the relations which it bears to all the other parts. The moon is determined by all its relations to the earth and to all the heavenly bodies and by its relations to its own parts (that is, in its chemical and physical composition), and by its relations to all nervous systems wherever and however existing; and so forth. Thus the moon is exhaustively and necessarily determined, and that is objective nature. On the other hand, we have in our ego a content which is determined solely by a limited number of relations, namely, by such possibilities of interchange of energy as pass the threshold of this particular nervous system of mine; and thus this ego is not exhaustively determined, and thus it remains subjective experience, appurtenant to me especially, and subject to untold contingencies."

The bearing of this conclusion on the problem of personal freedom is evident, but it is further enforced by considerations drawn from the doctrine of physical and psychical parallelism, or, as we might express it, of the one-to-one correspondence between physiological function and psychical function. The author says: "The term 'parallelism' is not supposed to imply that the analogy prevailing between physical and psychical phenomena is a thoroughgoing one. The fact is, that where unity is presented in the psychical (as in subjective sensation and feeling), in the physical the process is extremely complicated; and where indeterminateness is met with in the psychical, in the physical determinateness prevails. We cannot, accordingly, refute the theory of parallelism, by showing that no analogy prevails between the two aspects. The unconscious or non-psychical denotes nothing but separation from my individual consciousness, and not separation from the determinations of the content of a universal consciousness. Here forms of determination abide which rank above the phenomenal world, empirically known to us in individual minds; physical and psychical events in time and space may be conceived as the co-ordinated means by which the free self-determination of persons is developed under the guidance of reason. In this way the critical view meets the requirements of scientific cognition by exhibiting nature both in physical and psychical respects as a necessary system determined by law, while it also preserves intact the freedom of persons."

Space will not permit us to enter into details as to Dr. Lasswitz's religious and ethical views. Their trend and their scientific *pièces justificatives* may be gathered from the foregoing specimens of his procedure. They involve a practical personal philosophy which presents many points of interest and in many of its aspects is very ingeniously worked out.

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NOTICEABLE MATHEMATICAL, TEXT-BOOKS.

The *Elements of Geometry*¹ of Professors Phillips and Fisher, of Yale University, which forms one of the recent volumes of the Phillips-Loomis Mathemat-

¹*Elements of Geometry.* By Andrew W. Phillips, Ph. D. and Irving Fisher, Ph. D., Professors in Yale University. New York, Cincinnati, Chicago: American Book Company. 1896. Pages, viii, 540. Price, \$1.75.