rapid, the tone too jaunty, the atmosphere too reminiscent of the University Extension lecture-room in which the book originated. Indeed, if the truth must be spoken, what Mr. Bosanquet has given us is rather a collection of lecture-notes than a book. And, notwithstanding his evident desire to understand and to state correctly the findings of scientific psychology, his no less evident desire to reconcile these findings with the teachings of philosophical idealism, combined with the long habit of the metaphysical attitude, has often prevented his distinguishing with the required precision the psychological from the philosophical aspect of the question.

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The Psycho-Physiology of the Moral Imperative. J. H. LEUBA.

Amer. Jour. of Psychol., July, 1897.

The author does not write from the standpoint of the descriptive psychologist, or from that of the speculative or historical ethical writer. He does not enter into the quest for the *summum bonum* or the criterion of conduct. He takes it for granted that such exists, pays to the moral imperative a high and lofty tribute, and then seeks to ascertain its psychological correlate. The thesis of the article is that "the moral imperative is the psychical correlate of a reflective, cerebro-spinal, ideomotor process, the efferent end of which is organized into motor tracks coördinated for a specific action." The *imperative* element of conscience is compared with the phenomena of insistent ideas and their physiological mechanism. The non-moral is, however, carefully distinguished from the moral insistent ideas. The *reflective* element is characterized by the fact that with the sense of moral obligation there is always felt an antagonism of associated processes of the reflex-arc type. There is a retinal rivalry of ideas and their incipient motor accompaniments, so to speak. In other words, there is deliberation or reflection. The antagonism of the motor coördinations is on the side of consciousness an antagonism of intentions or ends. The *ideo-motor* element is that which James has made familiar to all. Then, again, the moral imperative is, on the physical side, non-sympathetic, cerebro-spinal in its nature. The calm, passionless insistence of the moral dictate is due to its freedom from the affecto-emotional life of the vegetative life, to the absence of the stimuli and passions of the sympathetic nervous system. Thus the moral dictate is more or less free from the desires, cravings and feelings which are peculiarly self-ish or personal. Thus we obtain the autocratic, impersonal, pas-

sionless, universal, obligatory, insistent, categorical imperative—the Stern Daughter of the Voice of God.

The author's literary style is excellent. He has made a distinct contribution. He has placed the moral imperative as the psychic expression of a well-defined species of reflex-arc process, in its natural and legitimate place in the unified and uniformly acting psychic system of modern science. His suggestion is also good that, "if the 'endeavor' of the organism through its career of evolution is shown by comparative anatomy to have been towards the isolation of the sympathetic from the cerebro-spinal system, the greatest and most portentous *conscious* effort of the highest races during past milleniums has been to deliver the 'soul' from the influences of the 'body.'"

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Evolution Ethics and Animal Psychology. E. P. EVANS. New York, D. Appleton and Co. 1898. Pp. 386.

This book is divided into two parts, of which only the second is of immediate interest to psychologists. It alone, therefore, will be taken account of in this review.

Mr. Evans pushes to extremes the view of animal mind held by Romanes. Even the actions of the pike who, after being prevented from devouring fish by the interposition of a glass plate, failed to dart at them when later it was removed, are attributed by him to 'docility and discrimination,' and 'judgment.' The glass plate did not merely inhibit an instinct; it inculcated 'a definite idea.' In general, Mr. Evans exhibits very well the common failure of this type of writers about animals to know just what they are looking for, and just what the facts which they do get mean. He repeats, with some interesting additions, the traditional anecdotes of marvellous performances by animals and the customary asseverations that reason is needed to account for them. But he has apparently made no effort to discover the workings of animals' minds in those circumstances where they are systematically given a chance to show what reasoning or mentality of any sort they possess. He has, that is, neglected the field of actual experiment and of observation of the actions of animals in the hands of professional trainers. This neglect is unfortunate. If the time-worn stories had had enough meaning to give us an animal psychology that scientists could agree about, we should have had one without Mr. Evans' book. Future writers on animal intelligence ought to realize that salvation does not come from such a source.