

additional interest from the fact that Shaftesbury was acquainted with this author and speaks of him with esteem in his 'Letters of a Noble Lord to a Young Man at the University.' The important points in Shaftesbury's account of human nature are: (1) His championship of a social 'herding' instinct; (2) his claim that happiness depends upon having the generous affections strong, and that to have the private affections too strong is to be miserable; (3) the immediacy of the approval or disapproval which we pass on moral acts. This immediate approval is made analogous to the æsthetic feeling, or sometimes to the sensuous reactions of smell and taste. All these doctrines are explicitly stated by Barrow. The first appears in the following from sermon 62: "Nature implanted in our constitution a love for society and aversion from solitude . . . a generosity innate to serve the public and promote the benefit of society." One of the two aspects of the second doctrine is contained in this sentence from the same sermon: "Even a true regard to our own private good will engage us not inordinately to pursue self-interest."

The third doctrine, that of immediate approval by a 'sense,' is stated in the following, and from the fact that the passage is found in at least two sermons (26 and 28), the doctrine was evidently a favorite with its author: "The practice of benignity, of courtesy, of elemency, at first sight, without any discursive reflection, doth obtain approbation and applause from us; being no less grateful and amiable to the mind than beauty to our eyes, harmony to our ears, fragrance to our smell and sweetness to our palate; and to the same mental sense, malignity, cruelty, harshness, all kinds of uncharitable dealing, are very disgustful and loathsome."

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DISCUSSION

PROFESSOR PIERCE ON SPACE PERCEPTION

I CAN not understand Professor Pierce's allusion to what he supposes has been established since 1897, unless it means to refer to the discussion between Professor Stratton and myself that year on the problem of 'upright vision' in the *Psychological Review*. But if he assumes that my article meant to deny that it is a problem of vision he has wholly mistaken it. It was my main purpose to show in that paper that whatever tactual 'uprightness' may exist, there is also a visual 'uprightness' which is convertible with the inversion

of the relation between the retinal image and the object, according to the laws of optics. If he thinks that Professor Stratton made out his point in the case I can only say that he has read my paper in vain. No doubt the conception of 'upright' as ordinarily used is a synthesis of visual and tactual experiences involving association, but each sense has its own problem, and if we do not wish to use the term 'upright' to denominate that of vision, the fact does not eliminate the inversion of the relation between the retinal image and the perceived object, as conceived by the laws of optics. Hence I must consider the problem as one of vision, whatever may be said about touch.

As to the rest of the case, my whole argument conducted in the paper on binocular vision in the memorial number of the *American Journal of Psychology* was an *ad hominem* one. I was not concerned with any questions of the retinal image as a fact, nor with any special interpretation of Hume's 'impressions,' nor with any cortical action. I do not care what these may be. I was dealing with the usual assumptions about these and their consequences. So far as I know, they may be wholly false. In fact, I profess entire ignorance as to what goes on in the cortex and in the retina. Further, I shall say that I do not believe that any physiologist or psychologist knows anything about what goes on in the cortex. We have plenty of theories about it based upon analogies with sense experience, which are just as good and just as bad as all talk about the retinal image. You can not get any belief in the existence of the cortex without assuming the transcendency of perception. If you mean to be sceptical about objective perception you must not talk about cortical facts of any kind unless they are treated as hypothetical. For all that we know directly, the cortex has no spacial qualities at all, either bidimensional or tridimensional. The free speculations on it and its functions, in so far as immediate knowledge is concerned, are only so much theory which we tolerate because we do not wish to substitute idealistic speculation for physiology. But granted that we know all about the cortex as a spacial object, how do its processes explain space perception? What are its processes and how are we to conceive them? We talk very glibly about them in our physiology and psychology, and are taken to have knowledge of them, but what else are our conceptions but the most abstract and speculative? When dealing with epistemological questions, I for one shall not allow myself to be fooled by all this speculation about cortical phenomena. They may be anything you please. I do not care what they are. I am and was concerned only with the question of consistency and clearness in the Berkeleyian conception of vision. If it were shown by psychology and physiology that we

have had false notions of the retinal image and of Hume's 'impression,' my *ad hominem* argument with Berkeley would not apply, but I should be left with my conclusion quite as intact as before, since there would be no basis for that school at all.

As to Hume's 'impression' and 'sense experience,' I can discuss them when we are clearly told what they are. I have never yet seen any more definite or clear idea of these than I have found in the usual hotch-potch of philosophic abracadabra. I would like to know what they are. I merely observe that all recent philosophy talks about 'experience' in a way that sometimes implies its inclusion of everything, and sometimes its Lockean limitations, which are generally negatively defined. The former conception makes the term useless in philosophy and the latter leaves us where Locke was. I do not pretend to discuss the epistemological problem in any *ad rem* fashion from either point of view. Hence I try neither to transcend 'experience' nor to remain within it, until I know what it is. My discussion in the paper reviewed by Professor Pierce had no reference to the nature of 'impressions,' but to certain conceptions of them, and these not my own. I can touch upon the question whether perception makes additions to sense experience—actual conscious sense experience—only when I have found out what this is. I have never yet seen any intelligible statement of what it is. All the transcendency that I have in mind is that which has to be admitted when we talk about cortical existence and processes, and was designed to justify any talk about them at all.

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REVIEWS AND ABSTRACTS OF LITERATURE

Studies in Logical Theory. JOHN DEWEY. The Decennial Publications of the University of Chicago. 2d Series, Vol. XI. Chicago, The University of Chicago Press. 1903. Pp. xiii + 388.

This book is first of all an account of the nature of knowledge, but it soon becomes a theory of experience and even of reality. Taken as a whole its thesis is, in the words of Professor Dewey (preface, x), that "knowledge . . . must be . . . reconstructive or transformatory (of experience); since Reality must be defined in terms of experience, judgment appears . . . as the medium through which the consciously effected evolution of Reality goes on." The first ten chapters are devoted mainly to the theory of knowledge and experience, and the last chapter mainly to the philosophic aspects of the theory. As the book has attracted much attention in America its contents will be summarized very briefly here, that I may pass at once to a criticism of its fundamental positions.