

call one particular kind of molecular arrangement "white," another kind "green," another kind "black," or "violet" or any other arbitrary name we may adopt, applying the general name of "color" to all of the various arrangements.

There, then, are various combinations of the exterior particles of different objects causing different velocities or amplitudes of the ether-waves that happen to impinge upon them, producing the various effects we cognize as the color of the object we behold. Now are we not as fully warranted in designating the surface conditions of an object that produces a certain state of consciousness as "white," or "green" or "yellow," as we are in thus denominating the effect said conditions have upon our consciousness? Does the primary cause of these effects not consist of their variegated molecular surface conditions? And is the secondary cause of these effects not in the ether-waves which depend for their velocities upon the molecular arrangements of the particles of the thing perceived?

Well then, here we have two distinct causes in the nature of actual entities, which combined, contain all the essential elements of what is really "color" in itself through such combination of entities. Yet we are asked to ignore these entities and to recognize only the psychic effects they have upon our perceptive faculties! Thus, in the recognition of what constitutes color, Idealism ranks the sense-impressions above the objective realities that produce them—"placing the cart before the horse;" subordinating the greater to the lesser, the real to the unreal!

The various objective realities in which all the elementary conditions and properties of what we term "color" are combined, existing independent of psychic cognition, invalidates the idealistic claims that color does not exist outside of, or apart from, the sensations it produces. Science sustains us in asserting that an orange is yellow, grass is green, etc., whether they make any psychic impressions or not. The conscious states to which the molecular conditions of the object perceived, in connection with the ether-waves emanating from it, give rise, are but the luminous ethereal reflections upon our sensorium of the color-conditions or qualities resident in the thing itself.

There is nothing in this contention to sustain the charge of Mr. Underwood that Materialism holds that the qualities of a thing are objective realities. We claim that the qualities constitute the nature of the thing perceived and as such cannot be dissociated from, or regarded separate from it. To use Mr. Underwood's own words in sustentation of these views: "We know and distinguish objects by the states of consciousness which,

through the senses, they produce in us." Admitting in these words that we know the object: i.e., the thing in itself, through our senses, do we not, therefore, also know what the thing is when no "state of consciousness" is produced? Do not a banker know about how much money he has in his vaults, and if it is silver, gold or paper, whether he sees it or not? What difference can it make to the thing itself, or how can it affect its condition when it makes an impression upon our senses? Thence by determining its nature and qualities with the aid of our senses we know just what it is apart from them.

All objective realities are so indissolubly associated with, or united to, their properties that to consider them apart from each other is out of the question. Yet upon the assumed position of such an utter impossibility the idealistic philosophy is based. The properties of a thing constitute its very essence; how then can they be dissociated from the thing itself? If it cannot be different outside or independent of cognition than it is with cognition it must always be just exactly as we perceive it to be.

"By their fruits: i.e., qualities, shall ye know them," holds as good in this case as in any other. Will any practical physicist take exception to it? It means: determine the properties of a thing and you know the thing itself. If one were to ask a chemist what do you suppose are the qualities of a thing apart from the thing itself, or outside of the psychic states to which it gives rise, he would first of all demand that you produce the thing separate from its qualities. This would enable him to analyze one at a time—the "noumenon" or "thing itself" first, and its properties afterwards. Any wonder that Science takes no notice of the vaporings of Idealism?"

Mr. Underwood continues further: "The external world, as we conceive it through our forms of perception and modes of thought, may have no resemblance whatever to the absolute reality. Between the internal and external order there is congruity, but resemblance cannot be affirmed." Admitting that to the "internal order" of our consciousness produced through the action of ether-waves of light upon our visual organism the outside world appears luminous, while to the external order, i.e., to all outside of those organs, there is total darkness, our knowledge of the things thus affected is in no way curtailed, since we then know that in one case they are within, and in the other case, outside of the sphere of luminosity. That is all the difference there can be in regard to the question of resemblance of the interior and exterior order of conditions. No other dissimilarity is conceivable, hence there can be none.

That all physicists are far from agreed that there is no light where there is no eye, is seen in this quotation in Prof. A. E. Dolbear's work on "Matter, Ether, Motion". In calling attention (on page 168) to the fact that "other animals, such as rats, mice, owls, bats, etc., can see where it appears to us to be pitch dark", he concludes that: "If our eyes were sufficiently sensitive . . . there would be no such condition as darkness. That is the same as saying that darkness is in us, RATHER THAN BEING A CONDITION EXTERNAL TO US." (Emphasis mine.)

In what plainer terms can my contention be affirmed that the presence of ether waves radiated from a luminous object illuminates all objects upon which they impinge, regardless of whether they arouse a HIGHER luminosity through the agency of visual organism or not. Thus, when luminous ether-waves affect visual organisms, producing that sensitivity we cognize as light, this is only a higher form of light, an intensification and exaltation of the light existing out of organisms. And to this LOWER form of light, I contend, plants and the lower orders of animal life, in which no visual organs are as yet developed, are susceptible, and probably perceive its presence through their specially adapted organism as distinctly as we perceive that higher form of light for the reception of which our organism was specially adapted.

No one contests Prof. Huxley's contention that: "All phenomena are, in their ultimate analysis, known to us only as facts of consciousness" (quoted by Mr. Underwood). That is to say: We do not see or perceive the thing itself, but only as it produces certain states of consciousness within us. Thus, when we see a tree, we only perceive its reflection, or image, and not the tree itself, upon our sensorium. When we smell a rose, we perceive its emanations, not the entire rose itself, upon our senses. When we feel a splinter in our flesh, its effects are conveyed to our cerebral seat of consciousness, not the splinter itself. These sense-impressions are phenomenal—psychic—in their nature, and in their final analysis reducible to facts of consciousness. No Materialist has ever disputed these relations of the external world with the "internal order" of sentiency.

Exception may, however, be taken with the term "only" in Prof. Huxley's proposition, on the ground that a fact of consciousness is as indisputable a fact as the judgment associated therewith can make it. Such a fact is all-sufficient for positive knowledge. Admit a fact (on both sides) and it is beyond controversy. This admission Prof. Huxley made, hence why qualify or modify it with the word "only"?

What more than an admitted fact is conceivable regarding what constitutes our knowledge of a thing? What more could he demand or expect?

Note that Prof. Huxley stated that phenomena are facts of consciousness. Well, a tree or a man is not a phenomenon, but a very concrete reality! Such realities he must have regarded as very indisputable facts—whether of consciousness or in themselves.

But while Prof. Huxley asserts that "All phenomena are known to us as facts of consciousness," Idealism takes the converse view, holding that the external world as we perceive it through our perceptions may have no resemblance whatever to the absolute reality, thus denying the reliability of what Prof. Huxley admits to be facts of consciousness, and that they are known to us as such facts. Now pray tell me, if any one can, on what grounds the belief is based that there may be no resemblance between these facts of consciousness and the thing in itself that produced them, or why these facts do not deserve to be placed in the category of definitely ascertained knowledge!

Again, the noumenon being admitted by Idealists to be an unquestionable fact in that it is the objective reality of our subjective psychic states, it only remains to subject it to a chemical analysis, and then, associating the facts of consciousness produced thereby with the judgment connected therewith, we have a tolerably approximate conception of what the thing really has been or is in itself with all its qualifications.

"What are phenomena?" asks Mr. Underwood, answering: "What appears; the appearance of the real; the effects upon consciousness of that which is." The real, or that which is, being admitted, why question its reality? What difference does it make to a reality whether its appearance is phenomenal in its nature or not? Conceding the appearance of a phenomenon, concedes the reality of that which appeared, for something unreal could certainly never have produced the phenomenon.

He further avers: "That which is, is the thing in itself—that which is independent of the perceiving self." So far very good—all things are independent of the perceiving self. The Materialistic position could not have been laid down in plainer terms. But he qualifies this proposition with the rather incongruous assertion that: "This is the 'unknowable', the 'inscrutable', the 'unpicturable', the 'essence of being'." Incongruous because the admission that "that which is independent of the perceiving self", concedes its independent existence, and if we know it exists, it must be placed in the realm of the knowable.

Concluded on 6th page.