justice we may credit to Homer, and also the practical fruits that came from this passion, including the influence that Athens has had upon the whole civilized world. When we add to this, that Homer, with the prophets prepared the way for Christianity, we begin to understand how great a moral and religious power he has been, and still is, indirectly, though his ideals have been mistakenly identified for centuries with those of Vergil.

When these points become clear, we must revalue Homer, and assign him the foremost place among poets, a place very near to the prophets, so giving to him the honor that the middle ages gave to Vergil by mistake. If there was a pagan-prophet and herald of Christianity, it was Homer.

## MISCELLANEOUS.

## DOES SCIENCE UNDERSTAND NATURE?

(An appreciative footnote to Mr. H. R. Vanderbyll's articles on "Intellect,
Religion and the Universe" in the *Open Court* for
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## BY HARDIN T. MCCLELLAND.

PEOPLE as a rule live from day to day without the least venture of speculation as to what keeps their bodies alive and healthy, and their minds conscious and rational. Work and food and sleep, and the occasional pastime of conversation make up the principal items of interest in practically any home or community within our public observation. Even in the private studios and laboratories where intellect and mechanical devices are less ephemerally concerned but more directly in contact with the obstinate facts of Reality, the same physical and mental functions of our vital economy are largely in the ascendent. The scientist has the same senses and faculties as the man in the street, but he exacts greater accuracy and more patient effort from the use to which he puts them. While the latter conceives life to be little other than a turbulent zone of livelihood and ephemeral utility, the former regards it as a clearing-house for functional values and phases of development.

What degree of spirituality then is actually and durably present in human nature? What proportion of our intelligence is devoted to the non-utilitarian investigation of the hows and whys of Life. Do those whom we dignify with the name of scientists really deserve this dignity through having obtained any actual understanding of Nature? And is there any possible way of adequately verifying this understanding in view of the fact that practically all our so-called knowledge is empirical, sensual, dative and hypothetical? Such questions as these have fired the imaginations of philosophers for years. The very audacity of such inquiries is what piques our self-sufficiency and we join in the general clamor for debate and possible solution.

But is a solution of any determinable degree of accuracy possible? We do not even know this. All we can do therefore is to continue theorizing, searching, experimenting, and analyzing. No current synthesis is final; no syncretism, however elaborate and inclusive, is truly universal and pantological. All such systems of generalization, even when rationalized to the degree of harmony with every known science, are yet finite surveys of life in the natural world, and of Nature in the vast infinitude of the Universe. What bond of philosophical validity can be said to exist between the human mind (as the subjective instrument of inquiry and understanding) and this universal infinitude (as the external object of such inquiry and understanding)? This is the pivotal question in practically every philosophical attempt from Anaxagoras to Bertrand Russell; and especially does it take on an unusual significance in the cosmological approach to Dr. Boutroux's very suggestive volume on the "Contingency of the Laws of Nature."

Some thinkers even complicate the question further by pointing out that even the elements of one person's inner life constitue part of the external world for some other person. And I would emphasize also that any hypothesis of existence is still finite through being derived from that co-ordinated series of human viewpoints called consciousness. For no one, at any certain moment, is conscious of everything. Hence it may be argued that what passes for science is but a refined sort of nescience which has been systematized and indexed, while what is usually called understanding is only a group-reflex of instinct and vital impulse. The series may be progressive, but the ratios are constant and the sum is always finite.

Even our concepts of Nature are limited to the space of this earth's superficial crust, supplemented by a few observations on starlight and atmospheric phenomena. Nature herself, showing forth so shyly within our narrow ken, is but one of the provinces of Reality (i. e., the material province); while Reality (including so far as we know matter, mind, spirit, law, etc.) is but one of the categories of phase in the Universal Infinitude. Another turn of the wheel of cosmic existence will probably reveal an altogether strange and dissimilar form of life and law and purpose—for example, that possible after-life to which physical death is the transition. Were this not so we would have no anticipations of change, no tychastic theories of human destiny. Our knowledge of Nature would not then, as now, depend so largely on physical experience and intellectual lucubrations of empirical data. In

view of a little respect for simple metaphysical possibility, any element of bigotry in the realm of science is quite unwarranted.

We are all acquainted with the English scientists during the Boer War who could not cope with fevers and natural conditions nearly so confidently well as did the ignorant (?) and superstitious natives. Then there are the many unaccountable miracles of occult workers who cannot be said to mock natural law all the time with their apparent magic and fraud. Now comes the Polish mathematician, Count Korzybski, repudiating our "animal theories" and propounding a dimensional system of conceiving life and spirit in the world. What he claims for the time-binding faculty of man is but a preface to what might be claimed its sequel and superior—the Nature-binding power of God or (practically) of any superhuman form of intelligent existence.

If the divine is but a sublimation of the best that is possible of attainment in human nature, what super-Nature (to us quite enigmatic but not necessarily unknowable) would be possible in another phase of the Universe where all existence is a sublimation of the divine? To answer questions of this order certainly requires that we leave our little man-made gods and creeds behind, repudiating ephemeral interests, joys and sorrows; and try to live after the manner of heavens high serenity. That is, not only be capable of taking both space and time into our intellectual embrace, but to be Nature-lovers and Nature-conquerors as well. For this I have no gruff and ruthless conquest in mind, but rather figuratively to take Nature by the hand and count the stars but stepping-stones to the wider life of man's immortal spirit.

The sum of human knowledge is bound up in the several sciences and is ornamented now and then with the individual insights of romanticism and genius. But to claim that man's mind or apparatus exhausts Nature, or even that we fully understand what little measure of the natural world our faculties are capable of compassing, is folly if not bigotry, and a position which is therefore indefensible. attitude is even culpable for greater intellectual wrongs, for it indicates either of two things: sheer ignorance or proud assumption. Hence, I think that everyone with the least ambition toward manly thought should always consider that the Universe is bigger than anything human: for its laws and magnitude even antidate and overreach anything we can predicate of the Trinity. The whole inadequate scheme of our modern philosophical approach, even with its clumsy bolster of scientific materialism, founders on one simple question: If we do not yet know the simplest codes of natural law in our own particular province of Reality, how can we defensibly presume to read the Word of God, understand the highest sublimation of phases (non-human, ultra-cosmic, super-Nature, etc.), or even see the last Horizon of our great Sidereal Domain? I often wonder whether future Science will be able to qualify for this supreme inquiry.