

SCIENTISTS OUT OF PLACE.

[We publish Mr. Paul R. Shipman's criticism of Dr. Alfred Russell Wallace because we feel that his vigorous onslaught hits our own position. To be sure we do not endorse Mr. Wallace's spiritistic tendencies nor his theory of the limits of the universe, but we believe that science and philosophy are so intimately interrelated that every scientist in order to be efficient must be a philosopher and every philosopher ought to be a scientist, or at least ought to be thoroughly familiar with scientific methods and keep abreast of the progress made in the several branches of scientific investigation. In fact our chief aim consists in building up a philosophy of science.—P. C.]

The distinction between science and philosophy, though generally recognised, is not always observed. "Philosophy," it has been said, "is the science of sciences," and the definition is perhaps as good as any other of the terse explanations of this kind of knowledge. Broadly speaking, it is the business of science, in the common acceptance of thinkers, to ascertain and classify facts; while to coördinate and unify the results of science, speaking in like manner, is the business of philosophy. Qualifications for the one, so far from being qualifications for the other, are disqualifications, rather. Science deals with concrete things, and calls especially for observation, experiment, and a mind wide open. Philosophy deals with abstract things, and calls for reason, speculation in the best sense of the word, and a mind not only wide open, but world-wide. Rarely are these two sets of qualifications in a high degree united in the same person. The philosopher who invades the province of the scientist is in danger of leaving it with hypotheses instead of facts. The scientist who invades the province of the philosopher, though he may gratify "the unskilful," is pretty sure to "make the judicious grieve." As a rule, accordingly, it would be well, I think, if scientists kept to their respective departments, and philosophers kept on their Alpine height. *Ne sutor ultra crepidam*. Let the scientist stick to his part. Let the philosopher stick to the whole.

These reflections seem germane to the much-published speculations of Dr. Alfred Russell Wallace on the limits of the universe, which he places at its visible horizon, identifying incredibly the universe of stars with the material universe. Emerging from his special department as a naturalist, he has made an excursion through the visible universe, it appears, and has returned with the twofold conviction that the visible universe constitutes the totality of things, and that it not only was created, but was created peculiarly for "the production and development of man," who is, he says, its "sole and sufficient result." This assuredly is "perilous stuff"—less perilous to him within his bosom than out of it, where, paradoxical as

it is, the "written troubles" of his brain will do him the most harm. The philosopher's fundamental conception is infinity, abstracted from the universe, wherein it is concrete. Imagine a philosopher who turns the constellation of Orion into a mile-stone on a highway to the limits of the infinite—a highway leading out of everything into nothing. Hudibras doggerelises, with an ironical sigh :

"Ay me! what perils do environ
The man that meddles with cold iron."

The twin author of the theory of natural selection probably thinks by this time that these are slight compared to the perils that

do environ
The wight that meddles with Orion.

Already at the mention of his name people the world over are shrugging their shoulders. Astronomers turn their backs upon him. Scientists of all descriptions, including those who might have gone off on the same speculation themselves if they had thought of it, are falling foul of him. Thinkers in every sphere look down on him. Even the level-headed "man in the street" joins in the general concert of veiled contempt. No wonder. As a scientist Dr. Wallace, although not a giant, is of distinguished stature; as a philosopher or speculative thinker, he is a pigmy. Nor in this respect does he stand alone in his class. The same in somewhat less degree may be said of some other distinguished scientists (not to mention the run of undistinguished ones), who ever and anon leap up out of their specialties, like fishes into the air, apparently under the delusion that they can support themselves in the rarer medium above their proper element. Let them in the future take warning from this Icarian flight of the most venerable and not the least accomplished of their number.

In his own department a scientist of this kind is or may be the right man in the right place—a round peg in a round hole. Out of his own department he is a round peg in a square hole. It needs only common sense to perceive that he is out of place.

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