PHILOSOPHICAL NOTES

The Search For Truth. The search for truth is a primitive concept. Yet it is not only the first but also the last of intellectual effort. In childhood we think we have the truth; in each of the succeeding ages man thinks he has the truth. But now he begins to modify, qualify, and add to what previously he thought was true. In old age the rational faculties of the healthy mind still hold to what it considers the truth. But by now, it is associated with a history, a perspective not possessed in childhood. The "search for truth" now becomes a more dominant idea than "possessing the truth."

The Evidence of the Atom. The study of molecules and atoms is a very old one which has been brought to a fine point in this century. Though tiny atoms and their parts cannot be seen they can be studied, measured in various ways, classified, and, more recently, split and fused. These studies indicate that all matter is made up of the same things, namely, electrons and the various particles or changes in the nucleus or center of the atom.

Most of the atom is space, and at times it is difficult to distinguish from motion what matter there is. All material things, the ordinary objects around us—a wooden chair, a glass, a clock, a metal table, even a human hand—are essentially the same thing, namely, forms of motion. Their atoms are all made up of electrons and the minute particles of the nucleus in different combinations.

An ardent agnostic once pointed to this fact as evidence in favor of the non-existence of God. If we and all things, he argued, are little more than negatively and positively charged electrical impulses, what evidence is there of God? A worm, a tree, a man, are all essentially the same thing.

Yet is not the fact a far more powerful argument in favor of the existence of God? If all things of the material world essentially are merely forms of motion, does not the material world at once seem much less substantial, and the spiritual world much closer and more real? On a discretely different plane, the things of the spiritual world, including angels, are forms of motion. If the things of the material world could not be reduced to anything more than different elements—lead, carbon, gold, and so on—

would they not seem to be much more substantial and to have existence from themselves?

Reduced essentially to forms of motion, they seem much less to have material existence. Instead they furnish evidence for a belief in an all-wise, all-powerful God who is the Creator of all things, human and material. His creation is a vast and complex variety of forms into which the genesis of all motion, the Divine love and wisdom, may flow.

Cause. This subject has already received some attention in these notes (see April–June issue, 1959). At that time some reference was made to the effect quantum theory has had upon cause-effect concepts.

In *Natural Philosophy of Cause and Chance* (Oxford Press, 1949), Max Born discusses the relation of physics to the problem of cause and effect. As a physicist he is well able to do so because he was one of the early and one of the important contributors to quantum theory.

He points out that "law" is not the key word when one speaks of the "law of cause and effect." Even chance, he explains, is not completely arbitrary because there are laws of chance. Even as the deterministic philosophy of Newton which was previously identified by many—and still is by some—with mathematical laws, it ought to be realized that statistics and the laws of probability can also be formalized precisely through the use of mathematics.

Born speaks of the considerable use of the term "cause" not only in all branches of science, but also in history, psychology, philosophy and theology—"everywhere with a different shade of meaning." He says further: "However, it is obvious that there must be a common feature in the use of these notions, like the theme in a set of variations."

Space in these notes cannot be devoted to reprinting Born's arguments but our readers might be interested in having included here one or two conclusions. Born says, for example:

"An unrestricted belief in causality leads necessarily to the idea that the world is an automaton of which we ourselves are only little cog-wheels. This means materialistic determinism. It resembles very much that religious determinism accepted by different creeds, where the actions of men are believed to be determined from the beginning by a ruling of God. I

cannot enlarge on the difficulties to which this idea leads if considered from the standpoint of ethical responsibility."

Born does not accept the identity of causality and determinism; so in order to give emphasis to the distinction between them, and also preciseness to their use by him in his book, he defines them as follows:

"*Determinism* postulates that events at different times are connected by laws in such a way that predictions of unknown situations (past or future) can be made.

"By this formulation religious predestination is excluded, since it assumes that the book of destiny is only open to God.

"*Causality* postulates that there are laws by which the occurrence of an entity B of a certain class depends on the occurrence of an entity A of another class, where the word 'entity' means any physical object, phenomenon, situation, or event. A is called the cause, B the effect."

These definitions clearly apply to the physical world only. And if so accepted by the philosopher of science they indicate the implications of quantum theory with reference to cause as being solely on the plane of the natural world.

Obviously the philosopher who follows Swedenborg implies more in his use of the word "cause" than this. If cause is a concept proper to creation itself, then that postulate of Swedenborg that existence is perpetual creation requires a constant cause-effect relation between the Creator and everything that exists.

Entropy. One of the fundamental principles consistent with all statistics and with all empirical results in physics, a concept as important to thermodynamics as is that of the molecule to molecular chemistry, is the principle dealing with entropy. In any isolated system the over-all tendency is toward an averaging out of all energy differences. Momentarily a higher level of energy can be created in some region through some special mechanism, but the over-all effect is in the direction of a leveling off. Stated in one of its more precise forms, this idea is known as the Second Law of Thermodynamics.

If the universe itself is regarded as such a system, it can be headed in only one direction throughout its history; and this is to a "heat death," as it has been called. The unidirectional tendency of all presently stored forms of energy toward a completely equal distribution spells death for the whole universe.

Every living body, every sun, every bit of radioactive material, everywhere on planets, wherever men could have lived or not, wherever water or anything at all is further from the center of the planet than something else, wherever anything has a higher temperature than anything else in the universe; yes, in fact, wherever there are motions of heavenly bodies with respect to another, whether it be a moon around its earth, or a planet about its central sun or a sun with respect to another: there is a source of energy, and all this will cease.

Such, it seems, is the prognosis for the universe and everything in it. Maybe it will become a limitless gas of dust, all of whose particles have random motion, but not too wide a distribution in mass differences or activity—unless entropy itself has been arrested. Thus even the statistical laws themselves that gave rise to such an enormous process of disintegration, of a tendency of all things toward "lukewarmness," would themselves cease to exist.

And so a universal law becomes its own undoing and is no longer universal. No longer? This seems to suggest time at a time when there is no longer time! Time itself depends upon the regular motion of the planets.

Yet there is one fact that would seem to call into question this construct of human thinking. There is one piece of evidence which, if we believe at all in the existence of our thinking minds, if we depend at all upon belief in the faithfulness of our senses to tell us anything at all about nature, if, indeed, we accept the existence of that nature itself, that is by itself enough to challenge the conclusion of the principle of entropy. This piece of evidence is that the universe exists.

There *is* a universe. How did that come about?

Wisdom. Wisdom is an ideal. The dictionary can hardly define ideals, although the words which represent them are included in it. To say that wisdom is an ideal is to raise the question, what is an ideal? Webster lists six special meanings of ideal in philosophy. No doubt the list is incomplete.

Yet there is a common element in them all. Let us be content for now with this—that an ideal is a standard of perfection. To stop off what now promises to be an eternal regression in our questions, let us assume that we have some idea of what is meant by a standard of perfection.

Every serious discipline or effort of the mind has its standards of perfection. In some cases they are physical objects, as in physics—the standard meter. In more subtle cases they are not physical objects, yet they are represented by physical objects. Works of art are such representations. In still other cases, and this applies to the efforts of the mind, they are ideas which can only be represented by words. Wisdom is such a word.

Belief is another such word. It cannot be defined but it can be felt. It is a very important feeling to life—to human life. For example, we can believe in the existence of wisdom, and this contributes to our life. Thus the believing man strives after wisdom. Yet this striving after wisdom is not like striving after other goals.

One can strive to visit a certain town, and it might, indeed, be the case that one day one actually arrives at that town. Or, he might strive to build a house, and there will come a day when the house will be lived in. But it cannot be said, because of one's striving: "Now I am wise."

Swedenborg quotes Seneca: "There are many who might have attained wisdom had they not fancied that they had attained it already" (E.A.K. I—*22*).

Among some of the ancients a certain humbleness of mind developed with regard to wisdom, and it was felt that another term was needed to represent something man could attain in his striving after wisdom. Pythagoras is credited with having invented the term philosophy for this purpose. Thus one could say he had the love of wisdom without claiming wisdom itself.

Jacques Maritain in *An Introduction to Philosophy,* in a development of this idea, speaks of the philosopher as possessing a certain kind of wisdom. But it is not the ultimate standard of perfection.

"It is the wisdom of man as man, which he acquires by the labour of his intellect, and it is for that very reason that his wisdom is gained with such difficulty and held so insecurely, and that those who seek it should be called philosophers rather than wise men."

E. F. A.