

Unification of Knowledge

By Peter Eiichi Kato
Professor Emeritus
University of Tsukuba
Japan

Preface

In the world today, knowledge is extremely divided. Sciences have been divided into very specialized fields. As a result, it is very difficult for a specialist in a particular field to know about other fields. Religions are in mutual conflicts. There are threats of wars and terrorism. Also, since science does not recognize God, there is a deep split between religion and science.

During a short period of time from now, I would like to show a way of unifying all knowledge.

First, I will unify sciences.

Second, I will unify religions.

Third, I will unify science and religion.

Finally, I will say a few words about practical value of this enterprise of unification.

1. Unification of Sciences

Each of the various sciences has unique objects and methods of its own. For that reason, each one can claim its *raison d'être* (reason for existing). If you ask which precedes which, object or method, I would say that object precedes method. As objects differ, different methods suitable to them are created.

The objects of science are all things in the universe. I will explain the nature of unification by taking in the general theory of systems. Please look at the Diagram 1.

I think that all things in the universe, except elementary particles, exist in systems. Elementary particles alone do not make up systems. All other things above atoms exist in systems. I made this diagram, placing in higher positions the things whose "systemness" (degree of systematization) is higher. In other words, in this diagram the things that have a larger number of subsystems which are more intricately connected with one another are placed in higher positions.

In the system of nature, the system in the lowest place is the "system of atoms." Above it, there are "the system of molecules," "the system of cells," etc. In the highest place, there are "the eco-system including human beings," "the system of the brain," and "the system of the universe" (abstracting human beings). This leads to "the systems of civilization" above it. Since it is obvious that "the systems of society" (such as a city) is more complicated than a human being, it is higher in terms of systemness.

Now, each of these systems is unique as an object of academic works. Accordingly, each one has been developing or forming its academic field that has its own unique method.

Each system is connected with one of the academic studies. Thus, the atomic system was studied by physics; the molecular system by chemistry; the cell system by biology; and the human body system by medicine, and later by physiology. The study of the civilization system, which is extremely complicated, has developed the method of "liberal arts." Gradually, however, this field is being invaded by science. For example, economics is being invaded by the methods of physics.

Those academic fields have developed separately. Gradually, however, they came to be interconnected. In the late 20th century, physics was connected with chemistry; chemistry with biology; and brain physiology began to connect itself with psychology. If psychology has connected itself with economics through social psychology, various sciences can be regarded as having been connected. (Actually, this year's Nobel Prize for economics was awarded to a psychological economist.) On the other hand, it is nothing but an analogy to attempt conventionally to connect physics and economics, skipping many stages in between.

Anyway, the unity of sciences is progressing in every field and at every connecting point.

2. Unification of Religions

I have found that a distinctive characteristic of religion exists in spiritual experiences and that all religions have that characteristic in common. ⁽¹⁾

Depending on how to interpret the spiritual experiences (such as an encounter with God) and also due to the insistence on their absolute authority, unlike science, many religions and religious sects came into existence and have been fighting among themselves.

In particular, conflicts between monotheism and polytheism and those among monotheistic religions have greatly hindered their unity.

In this connection, I have drawn the Diagram 2 which embraces monotheism and polytheism

like wrapping them into a sheet of paper. This diagram recognizes "God reigning" as monotheism insists. At the same time it manifests many gods as parts of the sphere. In this way, it becomes relatively easy for people to meet one of many gods.

3. Unification of Science and Religion

Science deals with all things, namely all existence, in the universe as its objects. But, they are not "the All" but the World of "U" (existence). In addition, there is the "MU (non-existence) World," which is the realm of religion.

The "U-World" (the World of Existence) is drawn at the lower right of the Diagram 2, in which the entire Diagram 1 (on various systems) can be contained.

In ancient India there were many philosophers who recognized nothing but this World of Existence. They were called as preachers of "Ubu" (Sarvastivadin). Seshin (Vasuvandhu, c. 320-400) became convinced of the existence of the "Mu-World" (the world of non-existence) after having examined the theory of "Ubu" in general. (I am a modern-day Vasuvandhu, if I am allowed to say so.)

I propose that we regard this "U-World" and the "MU-World" as the "two worlds permeating each other."

Now, religion and science take different approaches. Religion is a characteristic of Eastern Civilization, while science is that of the Western Civilization. So, let's compare the fundamental principles of the two civilizations, and draw them on a sheet of paper. Please look at the Diagram 3. I am sure that the two are united beautifully on a sheet of paper.

4. Practical Value of the Unification of Knowledge

Due to time limitation, I cannot elaborate on this. One thing I would like to mention is the Internet influence. One of the reasons I decided to aim at the "Unity of Knowledge" is that I want to make it possible for people to reach easily any field of knowledge. At present, thanks to the Internet, it has become possible to do a computer search. As a result, it has become less necessary for me to do the work.

Still, for the purpose of achieving world peace and developing science and religion, the "Unity of Knowledge" will never lose its value.

—The End—

Reference Cited:

- (1) See, for example, Williams James, *The Varieties of Religious Experience*, 1901, and "Various Aspects of Religious Experiences—Mystery and Spiritual Awakening" in Eiichi Kato, *From Religion to Wa-ism*, 1995, pp. 131-149.

Diagram 1: Main Levels in the Hierarchy of Systems

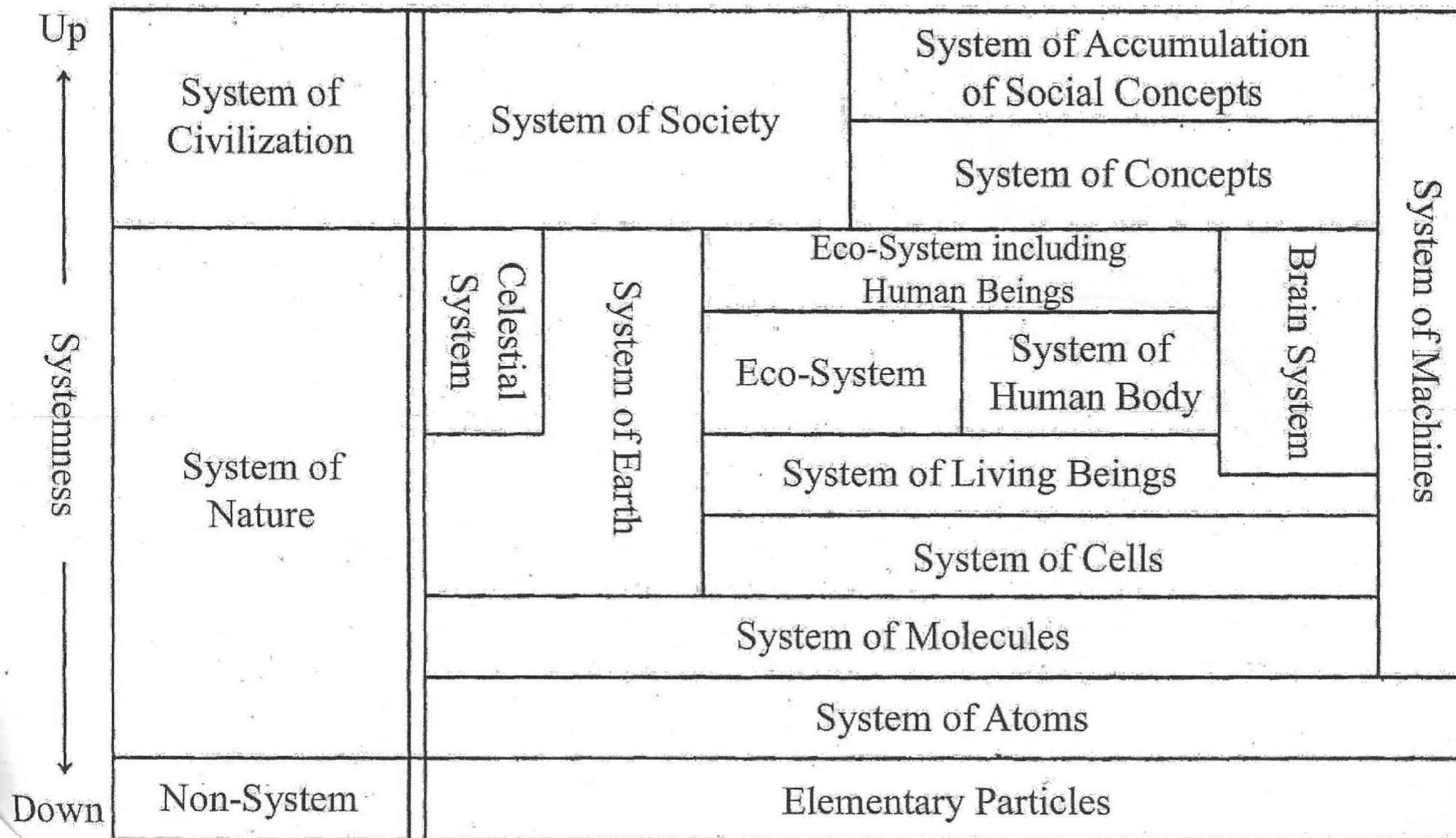


Diagram2: Two Worlds Permeating Each Other

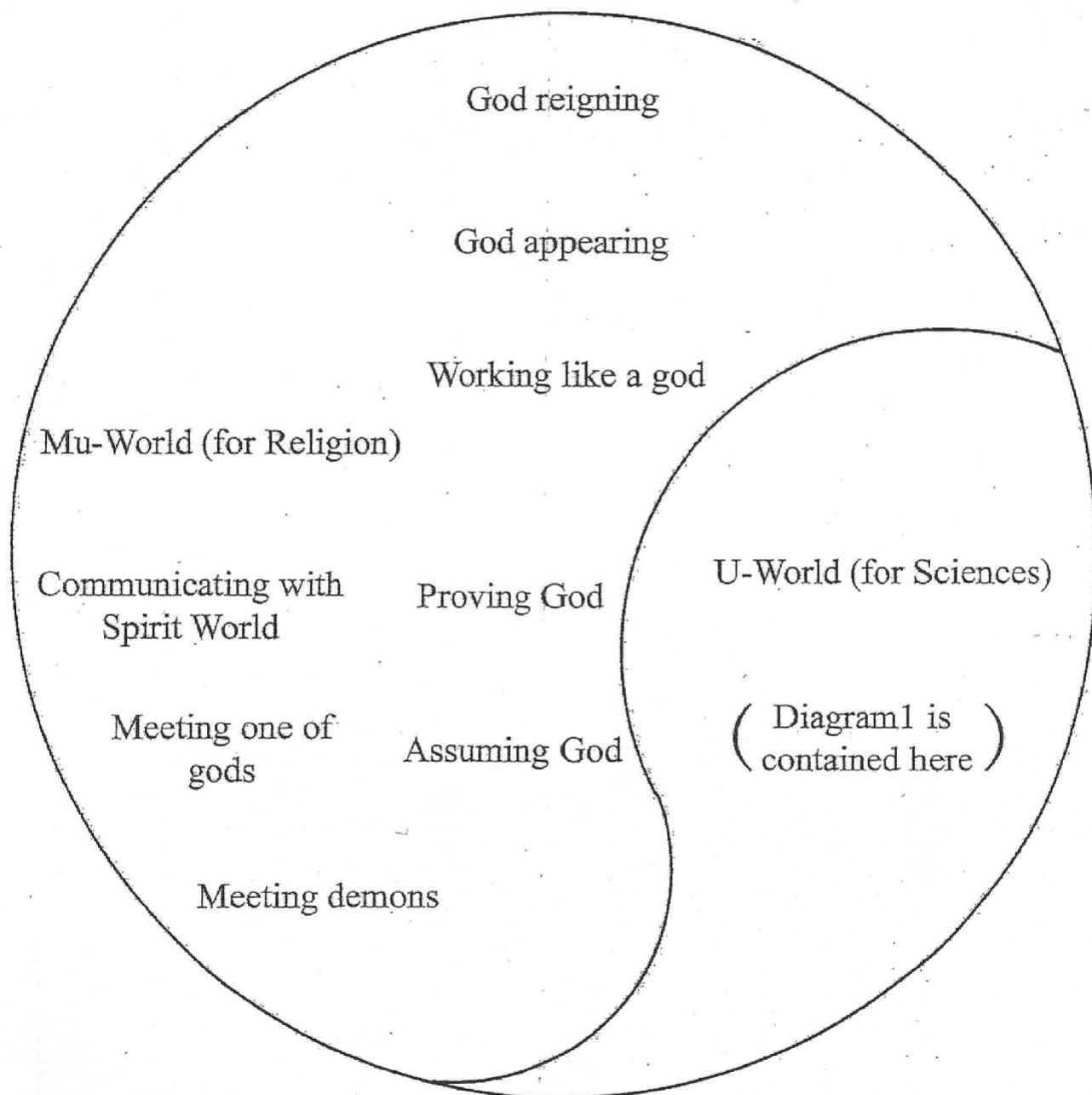


Diagram 3: Fundamental Principles of the Two Civilization

Western Civilization	Eastern Civilization
<p>(Law of Identity) $A = A$</p> <p>(Law of Contradiction) $A \cdot -A = 0$</p> <p>(Law of Excluded Middle) $-A \cdot -(-A) = 0$</p> <p>(Aristotle)</p>	<p>1) A</p> <p>2) $-A$ (non A)</p> <p>3) $A \cdot -A \neq 0$ (A and non A)</p> <p>4) $-A \cdot -(-A) \neq 0$ (Neither A nor non A)</p> <p>(Judgement by Four Phrases)</p>