

Two Masterpieces by Paul Krugman

1. Column in New York Times

The writer respects Krugman's Columns, just like American life. Among other columns, the writer loves his "Greece Crisis" dated on 1 June 2015. The writer believes, this is a masterpiece, continuously evaluated throughout the 21st Century. The subtitle is "risky sense similar to 1914," entirely full of the physical world's phenomena. Hereunder, this column is shown by *Column*.

POINT 3 describes whatever Krugman wrote in *Column*, by using writer's own expressions and limiting to writer's own responsibility. The writer was born in Dec 1930. In 19th March 1945, the writer died almost twenty times attacked by the US air force. In Aug 1945 when the 2nd world War was over, the writer was the 3rd year of the Yamaguchi Middle School boy. Classmates including the writer were working, 12 hours at all night, at Navy fuel factory, Tokuyama, 80 km West of Hiroshima.

We saw Atomic-Bomb at a moment of burst when we all bowed down the direction of Tokyo Palace, first instant bright ray and second huge clouds standing up.

In short, we know how miserable the War is, from our own experiences. Older people above 80 years old, with no exception, no more War, saying we cannot die without having true *PEACE*, against politics and wrong information just like during the last War. Strange to say, we do not feel hostility at all. Why? We know War is bad by nature; killing is never repeated in the physical world as human beings. Killing is absolutely against Nature and, Nature/God borne human. Individuals knows this intuitively by nature.

The writer cannot, intuitively, delicately, widely, and deeply, describe the physical world, as Krugman wrote in *Column*. The *EES* and the *HEU* united both worlds, physical and real/spiritual so that causes before results are all known and measured purely endogenously.

In the case of *Column,* Krugman does not know causes derived from the other world, where causes overlap results completely. Nevertheless, Krugman describes whatever happened historically back to 1914, when the 1st War happened. The human psychology/mentality in *Column* is beyond space and time; how delicately people are led to the War, struggling, giving up, obeying, and willing to.

The same is true in cases other than *Column.* For example, right now, narrowed sense of *PEACE* and War, crisis of deficits and debts; commonly in Japan, China, Korea, Taiwan, and far east countries. In short, the physical world is flexible and dynamic, always changing and never exactly repeating the same. These come from the weakness of human beings. We have our key for opening rue *PEACE* over the Earth and among the Universes, towards cooperation with each other, thinking of others first.

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Krugman understands and perceives everything in this world, which the writer admires. Arts, sciences and communications go together with diplomacy and open-minded like, Krugman, and the real US since its establishment.

2. “Increasing Returns and Economic Geography” in *JPE* (June, 1991)

With no compliment, I admire Paul Krugman’s 1991 article (hereunder, the article) in *JPE* 99 (June, 3): 483-499 as a unique work for one hundred years ahead and beyond this Century. Researchers also accept this article, saying that Krugman must be a genius. We know that a genius is born after many times lives between the body world and the spiritual (unseen) world. I like his papers and books by nature. I have read when I want to read once more since I wish to learn the essence of this masterpiece.

The article historically and well-logically tells us the economic scale in the short and long run, for which I have no word. The article accepts the vertical aspect of the market principles by good, services, and software. The article concretely and simply clarifies the essential relationship between manufacturing and agriculture. Therefore, the article is strategy-oriented in business administration area, rather than policy-oriented, as a whole economy by country (as in the *HEU*). Resultantly, the article is my teacher and textbook for my learning by doing in 2016. The article is further verified not only by my databases but also by evidences for mountain, river, field, and sea tied up with agriculture in Japan or Japanese unique culture and civilization.

For readers, I cite three cores of the article as follows: On page 484, why and when does manufacturing become concentrated in a few regions, leaving others relatively undeveloped? What we shall see is that it is possible to develop a very simple model of geographical concentration of manufacturing based on the interaction of economics of scale with transportation costs (omitting the following ‘MSV’ here).

On page 485, to understand the nature of the postulated pecuniary externalities, imagine a country in which there are two kinds of production, agriculture and manufacturing. Agricultural production is characterized both by constant returns to scale and by intensive use of immobile land. The geographical distribution of this production will therefore be determined largely by the exogenous distribution of suitable land. Manufacturing, on the other hand, we may supposed to be characterized by increasing returns to scale and modest use of land.

On page 487, the story also suggests that the details of the geography that emerge—which region end up with the population—depend sensitively on initial conditions. If one region has slightly more population than another when, say, transportation costs fall below some critical level, that region ends up gaining population at the other’s expense (sorry for no space). For his statement above, I interestingly remind of a constant capital-output ratio with its initial value, in the *EES*.

Citing Lay-Sermon Dialogue by Oota

‘A Word of Dialogue’¹: Citing Lay-Sermon by Risho Oota, 大田利生, encouragement of learning

A typical case of communications is dialogue. The writer wishes to cite an impressive dialogue presented by Risho Oota, 大田利生. The writer is, of course, responsible for translating the dialogue into English.

‘A Word of Dialogue’

A word of dialogue is used in various regions and its importance is often stressed. Now the author remembers ‘a certain *explanation*’ and ‘a *talk*,’ listening to a word of dialogue. The *explanation* is: It decides that dialogue is not persuasion and, first clarifies mutual differences between individuals when dialogue begins.

Also, the *talk* is: We find a difference between chimpanzee and newborn when each drinks breast milk. Chimpanzee does not raise face while newborn stops drinking breast milk sometimes and looks up mother and then begins to drink. And it is said, newborn repeats this gesture.

These ‘two’ fully tell us what dialogue is. We, without realizing, often demand persuasion, while saying dialogue and dialogue. When we convinced consensus and begin dialogue, we might lose a mind to do dialogue.

Also, the *talk* is: We may feel atmosphere of religious dialogue. Mother is newborn’s great existence. From this viewpoint, the gesture of newborn is a silent dialogue by newborn.

‘Silence’ here reminds us the dialogue between Sakyamuni and Ebisuhisage Nozomi, expressed in Mikei. While Ebisuhisage Nozomi says bitches before Sakyamuni, Sakyamuni is impressively listening to the bitches without saying anything. The appearance is really equal to the silence of mercy.

Therefore, the mind of Ebisuhisage Nozomi has changed. A word of ‘religious’ reminds us: The story of newborn overlaps the dialogue of Mikei.

At any rate, we are inclined to use this *talk*, thinking of no mind to dialogue. This identifies the appearance when Sakyamuni is listening, in Mikei.

In the dialogue seen in sutra, we find/read the relationship of each other

¹ Risho Oota, 大田利生. (2015). ‘A Word of Dialogue,’ 8-9. Fujinomiya: Journal *Byakko*, 白光.

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compliments and also, we touch the mind.

In our daily life, we should listen to the last word and have the mind of each other compliments. We hope to do so, don't we!

After typing the above story, the writer feels fresh and happy. Words are the beginning of life, we know but, actually we need leaning by doing, don't we! The diversity spread over years and in the world, towards peaceful mind. Yes, mind is the first and then, the mind is at once reflected in the actual seen world.



From Productivity Analysis to Organic Systemizing

The writer (Hideyuki Kamiryō) has his own target of life-time researches. This target is productivity measure, private, public, and government. In the future from now on, 12 May 2015, this target is replaced by organic systemization; policy, scheme, theory, practice, measure, and planning, or learning by doing.

In this aspect, Masahiko Aoki (1938- , professor emeritus of Stanford University and also Kyoto), 青木昌彦, is a great leading economist in the world today, the writer understand. Aoki publishes books, Japanese (eight, selected by him) and English (seven, by him). The writer likes “*Aoki Masahiko’s Economics Introduction*,” (xv+238, 10 March 2014, Chikuma-new book). Why?

The writer feels that the new book is clearly explained for beginners, including no equation but with several simplified diagrams and charts. This book (hereunder ‘*Introduction*’), from the viewpoint of the literature, has Notes most strictly and also the list of the literature, with first appearances, by using ‘i to xv,’ meticulous care.

Therefore, the writer is deeply impressed with his behavior, naturally and modestly feeling that a scholar should be an Aoki. The writer does not repeat other leading economists since writer’s Acknowledgements lists leading economists in England, Ireland, the US, Canada, and Japan, as shown in the PhD thesis, the University of Auckland, NZ; with subtle explanations to the ties among/between teachers and benefactors in writer’s life-time.

The writer cites the *Introduction* (pages 062-065, 073-075, and 203-206) by using writer’s own translation and responsibility as follows:

1. Varieties of equilibrium and inefficient system causing equilibrium

Figure 1 (ibid., p. 074) clarifies system’s various phases, endogenous, information-saving, and corrective. Play of game, top left, leads to *Strategies* and *Equilibrium*, through conjunct creation, while system, bottom left, leads to *Belief* as individual’s player and *Endogenous Rule* as domain of game, through consistency. *Belief* goes up to *Strategies*, while *Equilibrium* goes down to *Endogenous Rule*; by right-handed rotation. Price in equilibrium sums up equilibrium situation, which is defined as the rate of substitution to each individual’s consumption and also the rate of substitution to each enterprise’s technology equal the price level. This is a concept of Friedrich August von Hayek’s (1986; 1899-1992) information efficiency. Aoki applies the efficiency to system. Aoki suggests that by studying equilibrium’s mutual dependence, one can analyze phenomena which are difficult to explain hitherto. Aoki raises Milgrom, Roberts (1977, 1990), as colleagues of Stanford, for dependency’ pioneer application to enterprises.

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2. Consensus in system changes, role of regal domain

Figure 7 (ibid., p. 204) clarifies the evolving process of systems. The left vertical row, *Culture as common ex-ante knowledge*, is shown as a pole. To the right, a rectangle exists and four angles have *Experimental strategy selection*, top left, *Tremor of game situation*, top right; *Forecast assimilating partially*, bottom left, and *Remarkable public statements*, bottom right. The center of the rectangle shows *Public place*. Similarly, under *Forecast assimilating partially* and *Remarkable public statements*, there exists Recognized programming, supporting the above *Forecast* and *Remarkable public statements*.

Figure 7 implies that the experiments are a key for obtaining concrete solution of system establishment. Aoki indicates most importantly that all sorts of professional lawyers by job must the improve process legal principles in a one domain. This improvement naturally cooperates with national taste and preferences, history, and culture, by country (culture) by area (civilization). In the case of the *EES* and the *HEU*, the characteristics of a country is now absorbed into the *purely endogenous*, as empirically evidenced by writer's database of KEWT series, 9.15, using 86 countries, 1960-2015, and using the coefficient and function of preferences, $(\rho/r)(c/GDP)$. This device was one of most difficult works in purely endogenous. Why? This device measures equations remaining unchanged for 100 years at least, together with a constant capital-GDP ratio as well. As the writer explains (see the University of Auckland), the writer had to repeat thousands of times recursive programming without applying no equation for eight years (since PhD proposal allowance period is eight years). Recursive programming remains academic learning by doing but, legal principles are accepted by people and government by much harder learning by doing. Conclusively, the frame of Figure 7 has been born with Aoki's continuous tolerance and practice, the writer understands.

In short, repeating what the writer got from the *Introduction*: Why did the writer selected the above three headings? This is because the above three headings clarifies the essence of strategies and tactics wholly and deeply and that these three headings consistently corresponds with purely endogenous polices in the *EES* and the *HEU*. These three headings are writer's ray of hope itself and no others at all. In fact, policies are endogenous automatically without any external by nature, while strategies are difficult to assemble scattered items concretely more than policies. Anyone needs synthesizing power in order to grasp strategies. Without Nature's power, the consistent assembling cannot be completed. Or, 'learning by doing' for strategies must be much more than the case of endogenous policies. In this respect, the writer admires Aoki's researches, beyond space and time.

Review of Seife's Cosmology

1. Review of Seife's cosmology: from the viewpoint of 'purely endogenous'

This essay introduces Seife's cosmology, by comparing his armchair approach with writer's own 'purely endogenous.' Seife's cosmology is based on "Alpha & Omega: The Search for the Beginning and End of the Universe," by Charles Seife, author of *Zero* (2003, Penguin Books, iii+294p.).

Strange to say, Seife's cosmology together with the writer's cosmology is full of symmetry and supersymmetry, with hyperbola, curvature, dimensions, and Omega. Omega is defined on pages 85-86 as follows:

Scientists use the symbol Ω (the Greece capital letter omega). The size of Ω determines the curvature of the universe; if it is below the critical density, if omega is less than one ($\Omega < 1$), then the universe tends to have negative curvature and is shaped like a saddle. If omega is greater than one ($\Omega > 1$), then the curvature is usually positive, and the universe has a surface like a ball. If $\Omega = 1$, then the universe is pretty much flat, **like a plane**.

The symbol Ω is a particularly apt choice, because the curvature of the universe is related to its fate. Omega, the last letter of the Greek alphabet, symbolizes the end of everything, just as alpha symbolizes the beginning. Omega is a measure of the stuff in the universe, the matter and energy that make up the cosmos, and omega determines the victor in an eternal struggle: the struggle between expansion and contraction, the battle between an ever growing universe and that collapses under its own weight.

Now let us start with the above Omega definition. I find that the above Omega corresponds with writer's Omega, although both originals differ completely. Writer's Omega is the capital-output ratio consistently in the macro level as well as the micro level. The Omega changes by year over years but, I find a discovery that the Omega turns to a constant value all through years, when the first/initial value (e.g., 1960) is set equal to that at the end or the latest value (e.g., 2015). Paul Samuelson (1939, 1940, and 1970) proved a constant Omega mathematically but, with no data. Writer's discovery is what Samuelson wanted to prove empirically by country.

Then under what are the ranges of dimensions? Look at page 154n and 217n, where **7-D**, **3-D**, and **4-D** appear on p. 154 and also, **11-D** appear on p. 217:

154n: Mathematicians don't usually think of these objects as shapes, even though

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the concept of a group is closely tied to the symmetries of an object like a pyramid or a cube. Most groups, like the standard model's—which formally has the structure known as $SU(3) \times SU(2) \times U(1)$, the $SU(3)$ part being the portion of the group that has to do with quantum chromodynamics—are too complex to be described by the symmetries of a **three**-dimensional object; instead, the mathematician has to go to higher dimensions. This has nothing to do with whether the particles, or the universe itself, have more than **three** (or **four**) dimensions. It just has to do with the abstract object that is associated with a group. The dimensions are a mathematical formalism and nothing more.

217n: Most of these dimensions are *compactified* or curled up so we don't perceive them; they don't really “mean” anything in the way that the dimensions we're familiar with do. There are a few interesting variations on theories out there, notably those proposed by Nima Arkani-Hamed at Harvard and Andreas Albrecht of the University of California at Davis. In these theories, **some of those extra** dimensions are relatively large—millimeter size, even—which would have some observable consequences.

Why did I cite the above Note in detail so much? This is because according to Ishida's theory, **5-D** for spiritual world and **6-D** for this world and no more, as precisely measured and expressed by using familiar tools and papers, for many years, as repeatedly shown in her books published in Japan (also, see verified pictures in the *EES*). Further, the values of the curvature in hyperbola have been algebraically measured and presented in the *EES* by using equations set by country (macro) and also by company (micro).

On page 260 in Glossary, we find four sorts of Omega as follows:

Ω_b (omega sub b): The contribution of BARYONIC MATTER to the energy density of the universe. Scientists estimate that it equals about 0.05, or 5 percent. One-tenth of this is luminous matter; the rest is baryonic DARK MATTER.

Ω_m (omega sub m): The contribution of matter to the energy density of the universe. Scientists estimate that it equals about 0.35, or 35 percent. Most of this is EXOTIC DARK MATTER.

Ω_Λ (omega sub lambda): The contribution of the COSMOLOGICAL CONSTANT (or, more generally, DARK ENERGY) to the energy density of the universe. Scientists estimate that it equals about 0.65, or 65 percent.

Ω^- (omega minus): An OMRGA MINUS particle.

I pay attention to scientists' 'estimate,' which means that it is not precisely measured in a whole system.

What I pay most attention in Seife's cosmology is supersymmetry, as I touched at first. The word of supersymmetry appears on pages 133n, 152-53, 154, 157, 229-33, and 265-66 for Glossary. The definitions of supersymmetry and related items appear on pages 266-267 as follows:

Supersymmetry: An extension of the STANDARD MODEL that requires that each particle in the standard model have an undiscovered twin. Supersymmetry **should be** confirmed or falsified by the end of **the LHC experiments**.

Symmetry: The notion of an object or a process remaining the same, even as it is changed in some way. For instance, a playing card is symmetrical because it looks exactly the same if rotated **180 degrees**. The letter H is symmetrical because it looks the same when reflected in a mirror. The concept of symmetries is a fundamental idea that runs through modern physics.

Symmetry group: A mathematical object that represents, in abstract form, the set of symmetries if a shape in space. The STANDARD MODEL, SUPERSYMMETRY, and many other important physical models are based on **the manipulation** of symmetry groups.

2. Writer's interpretation on super-symmetry, symmetry, and symmetry group

Writer's interpretation on the above supersymmetry, symmetry, and symmetry group was originally summed up as follows:

1. The essence of symmetry is expressed in the 2-D plane as in the case of 'purely endogenous' and also, differently in various multiple dimensions as in the Seife's cosmology.
2. Precise measurement is uniquely limited to the 2-D plane that involves two sets of hyperbola symmetries.
3. Tests and experiments done by modern scientists above must be clarified, helped by Shizuko Ishida's whole universe. In this case, the writer is only responsible for translation into English. Ishida prepares her new Q & A list for all the papers and books up-dated in this world. On 23 Aug 2015, we two, Ishida and Kamiryo, discussed how to process these summaries on the Q & A list; towards the next year, 2016.

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Finally, what is core implication to each country's economy of the capital-output arranged in the GDP-based database (i.e., the KEWT series 9-15, 1960-2015), commonly to popular statistics in the world? Note, the writer is referring to the alpha in the Seife's cosmology, separately in two essays connected with CMI and also Shizuko Ishida (Iyonoishi, pen-named).

- (1) If a country's cabinet/government policy becomes far from the intention of individuals/people, the adverse energy immediately and at the same time rises up to recover dynamic balances between two extremes. We feel no problem at all in the country; mind and body of individual are happy and smiling even in group-oriented exploitation. Any extreme policy by country has its role and we must be generous in accepting the extreme, since we actually enjoy dynamic balances with no exception.
- (2) Apparently, in Japan there is no inflation. Why? This is because the level of deficits and debts is too extreme and the highest in the world, over 1000 trillion yen and more than twice of GDP. Any artificial government money financial policy does not last more than half a year or one year. Even the Bank of Japan cooperates with government and print most of deficits, deflation last long until when the interest rate rises suddenly due to beyond country's creditability. In this sense, the market principle is even and fair, next to God. No one can blame others. Everything comes up by our own responsibility. People enjoy deflation as a bonus to compensate continuous decrease in real wage rate.