

Conditions of Creativity:

A Reading of Descartes, Kant, and Leibniz in the Context of Soka Education

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Soka Education is a branch of education which proposes that the: “realization of happiness is the primary purpose of education” (Makiguchi, 1989:17) and further that: “the rightful purpose of education is the enabling of students to create value.” (Makiguchi, 1989:50) After Tsunaseburo Makiguchi (1871-1944) set forth these guidelines in *Education for Creative Living* (1989), a number of educational institutions have been founded on his ideals ranging from kindergartens in Japan, Hong Kong, Singapore, Malaysia, and Brazil to Universities, also in Japan, and in the U.S.A. (Website of Soka University: <http://www.soka.ac.jp/en/about/history/roots.html>)

With such a plethora of schools, one might be inclined to think that their educational practices are well defined and philosophically grounded, but this is far from the case, *Education for Creative Living* which consists of scattered notes (Makiguchi, 1989:13), being the only translated work from Makiguchi’s hand. Makiguchi’s educational successor and founder of these many institutions, Daisaku Ikeda, has published a number of essays on Soka Education, in a book of the same name (Ikeda, 2001), but these also, do not comprise a philosophical or pedagogical system.¹

The term “Soka” is Japanese and means “to create value” or “value-creating” and while Makiguchi rather detailed expounds on the meaning of “value”, he only mentions twice what is meant by “creating” (1989:50, 56-7). Behind the verb “to create” lies the

¹ The two volumes by Makiguchi and Ikeda constitute the bulk of primary literature, on which a number of scholars have commented. See: Dayle M. Bethel, David Hansen, Larry Hickman, George D. Miller, and Monte Joffe.

noun “creation” or “creativity”, for in order to create anything, one must be creative, one must possess creativity. The aim of the present paper is therefore to answer the question: what are the conditions of creativity? I shall separate the answer into an epistemological part and an ontological ditto: In the first part, which will comprise the bulk of the paper, I shall use the philosophical systems and starting-points of Descartes, Kant and Leibniz in addition to a critical review of more recent and mostly psychological literature on the area. The second part is a tentative introduction to the Buddhist notion of “Ku” (空 or 無空) meaning emptiness or potential, as expounded by Daisaku Ikeda. And it is through Daisaku Ikeda’s central idea of “Human Revolution” that the analysis shall come full circle, by a demonstration of some curricular initiatives that could increase creativity in education.

First, it might be appropriate to define the method of progression, the scope of the general inquiry, and provide a tentative definition of the subject.

It is difficult to define creativity without tautology. For instance, Halford and Wilson’s opening definition of creativity is that it “depends on using our mental processes to create novelty.” (Halford and Wilson, 2002:153) Perhaps it is from this difficulty that the interest in measuring creativity springs and such a quantitative method is present in most of the modern literature, taking approaches from neurology (Evans and Deehan, 1988, Perkins, 1996), evolutionary theory (Finlay and Lumsden, 1988), sociology (Martindale, 1996), AI theory (Boden, 1996), and primarily psychology (with more sources than can be listed here). There are very few strictly philosophical entries on the question of creativity which is a pity because the epistemological approach to

creativity points in a direction unreachable by the social sciences. The social sciences can point to instantiations of creativity, but a product of creativity or a person's creative acts cannot account for the experience of creativity which is the most direct indicator of its nature. In other words, the present paper seeks to establish a priori the necessary principles in creativity through a phenomenological approach. This approach will aim to extrapolate the epistemological conditions of creativity from the system-forming processes underlying the philosophies of Descartes, Kant and Leibniz. Throughout the paper, it will become apparent that the a priori and a posteriori methods converge on a number of conclusions, although the latter cannot account for the reason of its results, which I believe are best explained through the search for necessary conditions. In addition to these two methods, a third is represented by the humanistic psychoanalysts, for example Rollo May, Erich Fromm, and Carl Rogers whose results I shall also draw upon.

Everyone knows what it feels like when a new idea surfaces, when one is in a creative mind state. Such an approach brackets out value of the results of creativity (Eysenck, 1996), social preconditions and all other empirical considerations. Opposed to productivity, creativity is unpredictable (Piguet, 1988:128) – yet another reason why any a posteriori method cannot fully account for it. It is a value in itself, to be pursued in its own right and its quality is phenomenologically the same whether giving rise to quantum mechanical theories, new architecture, comic books or philosophical insights: A conclusion also shared by Rollo May (1975: 40-1). To possess creativity, to be creative is to see possibility, to see something that is not yet there, to see that things could be

different or that empirical reality is not absolute. Although it may never be fully realized in any person, the present paper shall primarily focus on the strongest or ideal sense of creativity, to be termed *radical creativity* or *creativity as redrawing the map*, because it is easier to define and simultaneously defines all weaker cases of creativity, to be labeled *creativity as recomposition of pre-existing elements*.²

The core thesis of the paper is that doubt or wonder are the central, necessary, epistemological conditions for creativity and further that the thought-process leading to creativity has three phases: 1) coming from the given 2) negating the given 3) facing the contradiction. This subdivision somewhat resembles Rollo May's description in the inspiring *The Nature of Creativity* (1975: 36-55), but also follows logically, as I shall try to demonstrate throughout this paper. Doubt cannot arise out of nothing, one must doubt something, why the first step is 1) Recognizing, or coming out of, the given. The given can take the form of Language (Piguet, 1988:129), familiar objects (Evans and Deehan, 1988:24), facts and ideas (Sinnott, 1959:23), or just general constraints (Boden, 1996:79). Anything, really, as long as it is directly apprehended, can serve as the basis for the formation of negation. 2) Such a negation, entails questioning whether the given is as it appears, or even a refusal to believe so. It is the first step of "de-absolutization", the realization that the given is somewhat conditioned by my preconceived notions, by my sensory and conceptual apparatus. Thus a contradiction or bi-polarity is realized which needs to be 3) faced or confronted directly for its solution. The more problematic the contradiction, the deeper the creativity necessary for its solution. Hence, I wish to emphasize that creativity is no idealistic or metaphysical idea: It is conditioned and

² The terminology of "redrawing the map" and "recomposition of pre-existing elements" is inspired by Boden, who makes a similar distinction between "exploring" and "transforming conceptual space". (Boden, 1996: 79-82)

bound by the given and the ensuing human capacity to doubt and be creative is therefore ultimately a certain kind of positioning towards the given.

Further, creativity is different from inspiration. One can seek inspiration in a piece of art, in a landscape, or an artist can feel inspired by some “other-worldly” force. But, one cannot seek creativity outside of oneself, it is an entirely internal and private occurrence. One can enable oneself to be creative, but not to become inspired and therefore - given that one can find a method of being and becoming creative – creativity is more essential to positive activity and productivity than inspiration, although the two phenomenologically resemble each other. Inspiration does not position itself against, but merely accepts, the given and therefore lacks the energy existing in the dichotomy of creativity as a recognition of, but also a breaking away from, the given.

If the definition and distinction still seems vague, let me focus on the idea of radical creativity as redrawing the map: In ordinary, weak-case creativity, one simply re-arranges ideational or empirical elements to make a seemingly new product. Boden (1996:81) gives an example from music history in which composers gradually modulated away from the tonic of the given piece. There is no necessary relation between creativity in its strong or weak sense and its effect on other people or society. Thus Gutenberg’s invention of the printing press was revolutionary, but resulting from the recomposition of the idea of the seal, the coin-stamping process, and the wine-press (Evans and Deehan, 1988:46) it is still an example of creativity in its weak sense. Radical creativity is perhaps what Boden (1996:82) calls transforming conceptual space, in which it is not the position of the elements that is changed, but rather the conceptual space in which the elements exist that changes. To Perkins (1996:133-4), what I call radical creativity, is the question

of how “genuine mental leaps occur”. Einstein’s development of the Theory of General Relativity is a great response to Perkins:

“For example, Einstein’s personal account of the event leading up to his formulation of general relativity may exemplify the critical role played by the conflation of two apparently inconsistent themes. Here the paradox arises from the notion that an observer in free fall is simultaneously both at rest and in motion (Rothenberg, A. *American Journal of Psychiatry* **136**, 38-43) This combining of two or more antithetical ideas can be viewed as requiring an infrastructural variant of a fundamentally computational procedure: additive operations in linking knowledge structures yield paradoxical results, prompting the system to shift to a different computational procedure under whose aegis the discrepancy is gradually resolved.” (Findlay and Lumsden, 1988:51-2)

In order to solve his problem, Einstein had to redraw his mental map. To assert that time and space are relative and that the speed of light is what is absolute, cannot be called a recomposition of elements, simply because the possibility of relative time and space supposedly did not figure as elements in Einstein’s prior conceptual scheme. Einstein is perhaps also a good example of Pasteur’s saying that “chance favors the prepared mind” (Perkins, 1996: 134) in the sense that he had great knowledge of his field, but also the ability to negate this knowledge, for instance, about the nature of time and space in order to arrive at his revolutionary theories.

After a hopefully satisfactory conceptualization and delineation of the nature of creativity, it is now time to extrapolate the preconditions of creativity from the classical philosophers.

Descartes' Doubt as "De-absolutization"

As argued, to be creative is to cease from considering the given as absolute. In order to "de-absolutize" the world, doubt is necessary:

In the first meditation, Descartes begins with doubt, but he also makes it clear that is it not enough to just doubt everything: "for familiar beliefs return constantly and, almost in spite of me, they seize hold of my judgment" (Descartes, R., 1998:21). In order for doubt not to fall back into acceptance of the given, he must make a more active stance of negation holding his former: "beliefs [to be]...completely false and imaginary" (Descartes, R., 1998:21). The power of doubting is weak when employed on its own, i.e. "I doubt whether this desk is really a desk, but I cannot see what else it could be", but becomes more potent by means of active negation i.e. "I assume that this is not a desk and further that there is no I". Boden also recognizes the difference between mere doubt and negation. She believes that to "consider the negative" constitutes a transformation of conceptual space (Boden, 1996:82). Another psychologist, Harold Anderson, paraphrases Henry Eyring, the Descartes of chemistry on might say:

"If one wanted to become a creative chemist one should certainly learn all he could about chemistry. He should then decide to refuse to believe any of it. From then on he would be free to select on the basis of his own thinking the relevant ideas and reject the irrelevant." (Anderson, 1959:125)

If one thus approaches doubt through negation in its strong sense, it must give rise to deep and intense speculation which is essential to creativity. In this context, creativity is therefore presupposed by a "de-absolutization" of the given which can only be obtained

through doubt in its active sense. Whether one arrives at the “Cogito” or the existence of God is irrelevant to the question of creativity. To become creative, can, but does not have to be, a truth-detecting method, as in Descartes’ case, but ultimately creativity serves its own purpose. Descartes does not fully doubt his own starting-point, namely the anxiety that he would have to recast all his knowledge if he does not sooner or later commit to his critical investigation.³ In other words, he does not question that something: “firm and durable in the sciences” exists (Descartes, R., 1998:18). The context of creativity is different, however, and brackets out this starting point, for the only thing one commits to, is questioning whatever one is faced with. One may then object, that if one doubts in order to become creative, then one is not doubting the existence of creativity, but this is conflating the level of the pure inquiry, which is a primary experiential level, and the level in which the value of creativity is recognized which is a second order incentive. If there is the thought of harnessing creativity in the moment of doubt, this is no longer a pure doubt and therefore less efficient; the moment of doubt and the moment of creativity must be chronologically distinct for the experience of untainted doubt. From the second order level, it is clear that the stronger and more fundamental the doubt, the more creative the ensuing moment. Thus, what could be called the sincerity or depth of the doubt is an epistemological precondition for creativity; a fact recognized by Rollo May in his description of “the intensity of the Encounter” (1976:44-6).

To engage a contrary position, how about the claim that doubt is not possible?

“We cannot begin with complete doubt. We must begin with all the prejudices which we actually have when we enter upon the study of

³ This analysis of the Meditations of course relies on believing that Descartes is in good faith. Perhaps he first discovered the Cogito and then tried to justify this discovery by forging a method of doubt.

philosophy. These prejudices are not to be dispelled by a maxim, for they are things which it does not occur to us *can* be questioned. Hence this initial skepticism will be a mere deception and not real doubt; and no one...will ever be satisfied until he has formally recovered all those beliefs which in form he has given up” (Peirce, 1955:229).

This critique is excruciating, for if one only finds the same beliefs that one wanted to question, then the process is in vain and doubt not possible *per se*.⁴ But it does not suffice for a philosophical statement to say that it is impossible to “begin with complete doubt” without any qualification. If one forthrightly denies the possibility of Cartesian doubt, one also denies the possibility of fundamentally reordering one’s concepts or of discovering new ones that are truly new. Anachronistically speaking, Descartes himself has fortified his argument against Peirce as described in the distinction between doubt in its weak sense and doubt including negation in its strong sense which does not relapse into former beliefs. Perhaps Descartes’ “Cogito” itself demonstrates the refutation of Peirce. Whether one agrees with it or not, it is hardly contestable that it constitutes one of the most important insights and turning-points in all history of philosophy. If Descartes arrived at the “Cogito” by effect of his initial doubt, it demonstrates that he did in fact recast at least one idea, which he did not already possess, and this shows Peirce to be mistaken.

As mentioned, Descartes does not begin with complete doubt, since he has some kind of recovery of truth as end goal in mind, so to that extent Peirce is correct. In the reading for creativity, however, in which doubt is a first order experience, untainted by

⁴ It should be noted that Peirce in *The Fixation of Belief* arguably holds a quite contrary position in the question of doubt. A thorough analysis of Peirce’s works, however, is well beyond the scope of the present paper.

intention, Peirce's critique does not obtain, since, in the moment of doubt, there is nothing but doubt in one's consciousness. The circumvention of Peirce's objection is the first indicator of the versatility of reading certain philosophers in the light of creativity. How does a reading for creativity relate to Kant?

Kant's Critique as Facing the Contradiction

Chronologically, Kant probably began the First Critique with the Antinomies of Reason as summarized by Peter Krausser:

“Now, let us take this together with what J. Schmucker (1974) has shown rather convincingly: the problem of the antinomies had agitated Kant already before his transcendental turn. This is supported by Kant's own remark that it is the antinomy which "operates most powerfully to awaken philosophy from its dogmatic slumber and move her to the difficult undertaking of the critique of reason" (*Proleg.* Section 50, cf. Footnote to Section 52b and Kant's letter to C. Garve on Oct. 21st 1798)” (Krausser,1988:4)

In maintaining the idea that the world must have a beginning in time and space - working from the given - and showing that it does not - negating the given - he arrived at a contradiction so stark that he had to reconsider the nature of knowledge. The conclusion of Kant's Copernican Revolution, claiming that we can only speak intelligibly about the conditions of our own knowledge rather than of the *ding an sich* could not have been predicted by him, or anyone else, in the moment of posing the contradiction: the limitation of knowledge is in no way included in the question as whether the world has a beginning or not, and therefore Kant's creativity is an example of redrawing the map.

Kant must have excelled in the third step necessary for creativity, namely to face the contradiction head on: An ability that characterizes the humanistic psychoanalysts description of creativity. Eric Fromm says that “Creativity is the ability to see (or to be aware) and to respond” (1959:44), that it “requires the capacity to be puzzled”, and that “the obvious becomes a problem” (1959:48). He does not mention doubt as such, but the description of being puzzled and in wonder, together with “the ability to accept conflict and tension resulting from polarity” reveals the synonymy of the terminology. Fromm’s idea is echoed again and again, by May, Rogers, Maslow and Anderson in an absolutely wonderful collection of lectures (Anderson, 1959). The architect Alden B. Dow has a creative rendition of the energy that arises in maintaining the contradiction:

“The original idea, when confronted with the reaction [as in Newton’s law of motion: For every action there is an equal and opposite action], absorbs some of the reaction idea with its own and thereby makes the final idea a combination of ideas, which in truth is a new idea” (Dow, 1959:39-40)

While this is an alternative attempt at accounting for the creative power that arises in facing the contradiction or bipolarity, I believe that it only accounts for creativity in its weak sense: In the classical dialectic in which thesis and antithesis becomes synthesis there is nothing but a recomposition of preexisting elements. Further, if I am not mistaken, the antithesis is not a Cartesian-sense active negation of the thesis but rather an automatically generated converse of the thesis.

May and Fromm give a better account of the radicalism of radical doubt. They both establish the contradiction in absolute terms between being and non-being (May, 1976:78) (Fromm, 1959:51-2). Death is the ultimate barrier and with the human ability to

imagine events after one's passing, one negates this absolutely given which sparks great creativity. Such an absolute contradiction is closer to what I would call doubt, because the object of one's imagination when "considering the negative" is non-existing e.g. Descartes' active negation.

Leibniz's Wonder as Deabsolutization

While doubt can be described as a mentally closed operation, insofar as one always doubts something, often one object at the time, wonder is more open and without object. Compared to the specificity of doubt, wonder is more existential⁵ exemplified by the question "Why is there something rather than nothing".⁶ Although there may be many good reasons why there is something rather than nothing, upon sincerely wondering about this question, one thoroughly realizes the contingency of the given. One entertains the possibility of there actually being nothing rather than something and in this process of "de-absolutizing", the world is perceived in a new way, as if one had just woken up.

In the following paragraphs, I shall try to demonstrate that Leibniz formed his idea of the "principle of sufficient reason" from the question of why there is something rather than nothing. He writes in *On The Ultimate Origination of Things*: "Therefore, to whatever earlier state you go back, you never find in it the complete reason of things, that

⁵ It is interesting to look at the etymology of the vocabulary connected with deeply existential questions: In the case of mental illness which is too often connected with great creativity, May points to the related adjective, "diabolic", from the Greek *dia-ballein*, "pulling apart" (1976: 127). Further, in German, the word for despair is "Verzweifelt". "Zweifel" means doubt, "zwei" of course meaning two i.e. a split between two. Again in the relation between the given and doubt, its negation, there is dia-polarity enough to pull one apart.

⁶ The mind state in deep, sincere contemplation of this specific question, which is a mind-state of wonder, may phenomenologically resemble the mind-state appearing in thinking about one's own death, which is why wonder is more "existential" than doubt in general.

is to say, the reason why there exists any world and why this world rather than some other.” (Leibniz, 1898:338). If trying to put oneself in the position of Leibniz, it is unintelligible to formulate the principle of sufficient reason as a first position, out of nothing. One would not, *ex nihilo*, postulate *nihil est sine ratione* without first coming upon the question of why there is something rather than nothing. Heidegger says that the principle of reason (which, for the sake of simplicity, shall be considered identical to the principle of sufficient reason) is illuminating and the first among fundamental principles (Heidegger, 1991:3, 8). However in the order of discovery it is contingent upon and secondary to the aforementioned question. One can imagine Leibniz in the process of doubting, “why is there something rather than nothing?” and then resolving “because nothing is without reason”.

The question, as described, leads to wonder and how one then chooses to resolve wonder is of secondary importance in the case of creativity. This follows from the phenomenologically established principle that creativity is a value in itself. From the perspective of phenomenology, it is only the experience of creativity that counts as valid data, and thus the experience of creativity is the only data that has any value to the phenomenologist. Therefore, all that needs to be demonstrated is that wonder makes the philosopher creative. In Leibniz’s case, from initial wonder, he likely formulated the principle of sufficient reason, a classical, though disputed, principle to philosophy.

After the demonstration of the influence of doubt and wonder upon the formation of philosophical ideas, one might be inclined to think that doubt and wonder should be instilled in students during their education. In a new, fascinating, and bold work, however,

Quentin Meillassoux wishes to deflate the sense of wonder originating from Leibniz's question:

“We must free ourselves of the question – but this requires not just that we resolve it, but that we formulate an answer to it which is necessarily disappointing, so that this disappointment becomes its most instructive aspect. The only proper attitude when confronted with such a problem is to maintain that there is little at stake in it, and that the spiritual tremulousness which it inspires, whether sardonic or profound, is inappropriate.” (Meillassoux, 2008:72-73)

Firstly it should be mentioned that Meillassoux is primarily concerned with a religious outcome of the “spiritual tremulousness” and not per se advocating against doubt and wonder. If he remains skeptical of Leibniz's question because it eventually leads to a theological assertion - almost in the same way that Peirce is skeptical of Descartes being led back to his original concepts, amongst them that of God – one can challenge Meillassoux, by showing that there is no necessary relation between wonder and religiosity. On the contrary, the necessary relation obtains between doubt or wonder and the formation of pungent philosophical systems through creativity. In fear of a barren philosophical future, I therefore strongly disagree with Meillassoux' recommendation.

In the reading that posits the importance of creativity, the worst response to Descartes, Leibniz, and Kant, is to formulate a disappointing answer, not simply because it is disappointing, but because the question, to some extent is not meant to be answered at all. This reading is a philosophically non-teleological one that does not seek to answer to wonder and doubt, but seeks to maintain them. When maintained, the mind gradually opens and “de-absolutizes“, giving rise to a plethora of new ideas with no necessary

intellectual connection to the question posed. As a challenge to Meillassoux, one could turn the reading for creativity against himself. He writes his essay only because he cannot solve the apparent contradiction between “correlationism” (intentionality) and “ancestrality” (the fact that cosmic, physical, and biological events occurred before there was any consciousness to have intentionality of them). His answer to this contradiction, namely the “necessity of contingency” resembles that of Kant, to the extent that it does not use the pre-existing components of the question.

Before progressing to the final part of the paper, a little summing up might help clarify the main-points so far:

Firstly, it has been shown that one must have something to doubt. The more knowledge one has in one’s respective field, the more questions can arise. So knowledge of the given is an epistemological precondition for doubt. However, ontologically the ability to doubt does not arise from the given. The negation of the given cannot arise qua “givenness”, it has no possibility of negating itself. The given is necessary, but not sufficient condition for doubt, which is a human capacity to imagine the negation of the given.

Secondly, doubt and wonder are equally potent in bringing about creativity, but nevertheless distinct. Doubt is to wonder as fear is to angst: The former with object, the latter without. But from a phenomenological perspective, they are of the same order and what matters is how deeply and sincerely one can doubt or wonder. Martindale says that in order: “To produce a novel idea, one must regress to a primordial level. To produce an even more novel idea, one must regress to an even more primordial mode of thinking”

(Martindale, 1996:164) and May likewise defines his second element in creativity as the: “intensity of the Encounter” (May, 1975:44) This points back to the idea that the depth of wonder or doubt is proportional to the width of the creativity and this can be seen in the case of Kant and Leibniz, for what question can be deeper, when sincerely reflected upon, than whether there is Free Will, as in the third antinomy, or why there is something rather than nothing?

Thirdly, creativity can be separated into two orders: Creativity in the weak sense seeks answer to contradictions, but will have to give up in deep or existential questions, because the answer here does not lie in a recomposition of elements. Only radical creativity, as redrawing the map can solve these questions and when it does, it never does so by directly solving the contradiction, but by producing a new conceptual space, in which the contradiction is no longer a contradiction. Einstein’s theory of relativity perfectly exemplifies this. When one needs to redraw the map, it is discovered that one’s question is the wrong question. It is wrong in the sense that it does not directly partake in the solution, but serves as an expedient means, a point of departure. When one encounters a question for which one thinks radical creativity is necessary, one also know that one is asking the wrong question and that the possible answer will be an answer to the conditions of the question rather than to the question itself. In other words, if one thinks one is working with a contradiction that requires radical creativity, one should stop looking for obvious answers and instead “regress to an even more primordial mode of thinking”.

The Condition of “Ku”

The general epistemic condition of doubt cannot account for the emergence of creativity. Although the forced contradiction is a necessary condition, does creativity just come out of nothing? After all, a definition of creativity is to bring something out of nothing. In order to investigate the emergence of creativity, I would tentatively like to suggest working towards the Buddhist principle called “Ku”.⁷

First, Sinnott claims that: “However creativity may manifest itself in the affairs of men, it is the inherent creativeness of life, I believe, that its ultimate source is to be found” (1959:28). Sinnott does not substantiate this claim, but the humanistic psychoanalysts might be able to throw some light on the idea: “The mainspring of creativity appears to be the same tendency which we discover so deeply as the curative force in psychotherapy – man’s tendency to actualize himself, to become his potentialities.” (Rogers, 1959:72) Taken literally, to become one’s potentialities is to become something one is not yet, to become something that does not exist in any material sense. Nevertheless, self-actualization is not a nonsensical, metaphysical idea, for everyone knows that by practicing any activity continually, such as reading, playing the cello, or writing philosophy papers, one (hopefully) becomes more skilled, one actualizes an inherent potential. Similarly, May and Fromm attributed the origination of creativity in its strongest sense, to the dilemma involved in considering one’s own death – between being and non-being. “Inherent creativeness in life”, human “potentialities”, and “non-being” cannot be said to exist in any measurable, empirical way, but does this give one the right to say that they do not exist in any way possible?

⁷ “Ku” is the Japanese counterpart to the Sanskrit “Sunyata”

The Buddhist idea of “Ku” simply translated means “emptiness”. The idea can be traced back to Nagarjuna in India, 2nd century AD, and was systematized by Chi-i T’ien-T’ai in China, 538-597 (Swanson, 1989) and is one of three levels of reality; one of manifest object, “Ke”, one of un-manifest objects, “Ku”, and one which encompasses both the manifest and the un-manifest, “Chu” (Ikeda, 1982:46-64).⁸ “Ku” is the un-manifested realm, but according to Ikeda, neither existing, nor non-existing (1982:56). It is a potentiality that can “cause activity in the visible superstratum” (1982:55) and in this fashion it comes surprisingly close to the definitions given by Rogers, Fromm, and May. Ikeda also compares Ku to the subconscious (1982:56) which is interesting since most of the literature on creativity asserts some relation or other between creativity and the subconscious.

Buddhist criteria for truth are different from Occidental ones, and therefore I merely wish to introduce “Ku” as a stimulating, general and homogeneous principle offering a possible account for the ontological origin of creativity and not as a scientific, absolutist claim about the true nature of the universe. However, if creativity is considered as arising in the interplay between being and non-being, between “Ke” and “Ku”, in the contradiction between on one hand, the given and on the other, doubt and wonder, then the current paper needs not apply to epistemic levels alone, but equally to levels of everyday life:

Doubt and Wonder as the Microcosm

⁸ “Ke”, “Ku”, and “Chu” are the Japanese pronunciation used by Ikeda and the Japanese Buddhist tradition for the corresponding Chinese characters.

Indeed, everyday life offers plenty of occasions for doubt and wonder and calls for the ability to face the contradiction head on. To include a psychological consideration, a trait of creative people is their being able to remain unswayed in their conviction, ready to fight for their newly discovered ideas despite strong or even fatal opposition (Gardner, 1996:153-5; Eysenck, 1996:234; Anderson, 1959:124 and many more). Fromm states that: “Conflicts are the source of wondering, of the development of strength, of what one used to call “character” and it is thus apparent that doubt and conflict can be used as an expedient means in forging robust individuals. Strengthening the human being through considering obstacles and conflict as a source of expressing one’s potential is a key-stone in Ikeda’s educational philosophy. Inspired by the Buddhist struggle towards enlightenment, Ikeda talks of “Human Revolution” (2001:99; 1982: 27) as a development of wisdom, courage and compassion through peaceful struggle in everyday life, perhaps comparable to the humanist psychoanalysts’ “self-actualization”.⁹ The quotation from Fromm above, therefore provides the link from doubt and wonder for creativity, as the microcosm of macrocosmic everyday problems employed for the sake of self-improvement or human revolution.

To return to the outset and consider creativity in the context of value creating, Soka Education, it is now clear that such an education must give ample room for doubt

⁹ The entirety of Ikeda’s writings can perhaps be seen as an exposition of human revolution, the movement between Ke and Ku, but in the context of creativity there is a highly apt passage from the text *Be Creative Individuals*. In speaking of the relation between freedom and constraints (“de-absolutization” and “the given” in the terms of the present paper), he writes: “Inexhaustible fonts of creative thinking can only be tapped where mind and spirit can roam freely exploring all perspectives and possibilities.” However, on the other hand: “True development can take place only in the presence of both expanse liberty and a high degree of self-discipline.” Finally: “Both in Plato’s Academy and in the ancient Buddhist university at Nalanda there were freedom; but there was also stern confrontation with truth. Thus there was creative, original thinking. And it was precisely for this reason that the Academy and Nalanda were able to bequeath such rich spiritual heritages to their respective spheres of civilization.” (Ikeda, 2006: 28)

and wonder, but also provide real-life situations that stimulate peaceful conflict. At Soka University of America in California, this is done primarily in three ways:

- 1) The first course everyone takes is a 3 week intensive class with 3 hours of seminar a day, entitled “Enduring Questions of Humanity”. Here, one relates to the “big” philosophical questions through reading the Classics of different civilizations including Plato, Aristotle, Kant, the Bible, the Koran, the Gita and Upanishads, Confucius and Lao Tzu. Many students, having never been exposed to philosophy are thus likely forced into deep layers of questioning and wonder.
- 2) The students have many opportunities to create their own intensive courses, called “learning clusters” and to do independent studies alone with a professor. In these courses, students are expected to structure the courses and do research in advance to provide reading-lists and curricula. In the role of the course-creator, rather than the course-taker, students are forced to be creative, facing a range of conflicts that naturally goes into structuring university courses.
- 3) Most important of all, is the one semester mandatory study abroad to China, Japan, or a Spanish speaking nation. Struggling with a new culture in a language in which one is not fully proficient leads to many moments of doubt and to many obstacles in the process of integrating oneself in a foreign country.

Conclusion:

To wrap everything up, it has been established that creativity originates from a three step process in which one first exists in the world with knowledge of the given, then start to

doubt or wonder about certain elements within it, to arrive at a contradiction to which the solution is creativity. Further, I have claimed that the depth or sincerity of the initial doubt is proportional to the strength of the creativity that will emerge solving this contradiction. If the doubt or wonder is sufficiently deep, the answer will not come out of a recomposition of one's prior knowledge, but will only be provided through radical creativity in which one redraws one's conceptual map. This has been shown in the example of Einstein. For Descartes, Kant and Leibniz, their main works have been exposed to a possibly new reading that does not consider the intentions of their particular philosophical systems, but instead extrapolates an underlying principle of creativity that can be pragmatically applicable in the university setting or even in ordinary life.

In the context of education, if the goal of a pedagogical system is to foster creative students, it must be able to instill a sense of doubt and wonder. For this, the suggested reading focusing on creativity might be fruitful, provided that one can enable one's students to engage with, for example, Descartes' doubt to the extent that they internalize it and start negating the given. In addition, for an educational system to be able to create value, as should be the case with Soka Education, the students must face doubt and wonder not merely in thought, but in real life, in society. This can be done in many ways, for example through various internships, through giving students co-responsibility for curricular and administrative decisions, or by teaching them a new language and have them apply it in a foreign country. Such an approach is a practical actualization of fostering creativity, because, as shown in the analysis of Descartes, Kant,

and Leibniz, doubt, whether practical or intellectual, is a necessary, epistemological condition of creativity.¹⁰

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¹⁰ My thanks to Barry Dainton for helpful comments and suggestions.

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