http://dx.doi.org/10.18778/7969-759-5.10

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OUT OF THE BOX THINKING

1. Introduction

If we accept that out of the box thinking is important, especially when hitherto existing solutions are applied to little avail, then understanding this process is also extremely important.

The primary observation here is that out of the box thinking is powerfully constrained by the very nature. In addressing this phenomenon we need to recognize that once the mind is furnished, it is difficult for it to entertain novelty.[1] Viewing the situation through the metaphor of canyon and plain not only allows for an insight into this question but also offers a method of inducing a change.

2. Canyon

Fancy that you are moving along some deep canyon and all you can see are its walls of stone. You feel safe inside and just follow the unique direction possible.

As much evidence shows, some part of human thinking may be compared to torrents flowing in deep canyons. And as in a real ravine the visual perspective is confined by its slopes and one can follow the only path, similarly, the train of thoughts is limited to the most easily accessible and immediate "pathways" without perceiving the possibility of choice or change. These are real thinking canyons, *i.e.* most deeply rooted and long-standing beliefs, attitudes, and opinions. They are the last to be changed. They play the role of a censor sometimes causing a cognitive dissonance, for example, a person who is asked to write an article

[1] I do not mean the "novelty" complying with canyons.

defending views contrary to their own and paid a negligible amount of money experiences cognitive dissonance and to avoid it starts to agree with what he/she has written. Thus, their prevailing canyon: *I am rational*, remains unaltered. Even Einstein succumbed to the canyons (he was convinced that the universe cannot change) and added a cosmological constant to stop the expansion (or contraction) predicted by his own relativity theory.[2]

The question about the source of such canyons has at least two complementary answers.

First, this feature of thinking seems to be strictly connected with the traits of our memory, but not, which should be emphasized, with any memory impairment. According to Eysenck, Keane (Eysenck, Keane, 2010: 272, 631, 636) declarative (explicit) memory registers events, rules, references and meanings, while non-declarative (implicit) one registers procedures and is connected with emotions, skeletal musculature, habituation, and sensitization (increase in the responsiveness to a stimulus as a result of its repeated presentation), and priming (increased sensitivity to certain stimuli due to prior experience) (Forster, Davis, 1984). The latter two supposedly explain the tenacity of canyons.

Moreover, the storage of memory and its persistence suggest the existence of engrams[3] by which memory traces are stored. Engram is thought of as a permanent impression left on protoplasm as the result of stimulus, *i.e.* any psychic experience. Neuroscientists have long sought the location of these memory traces. Recently (Liu, Ramirez, Pang, 2012) have identified the cells that make up part of an engram for a specific memory and reactivate it using a technology called optogenetics. Memories of experiences are encoded by chemical and physical changes in neurons, and by modifications to the connections between the neurons. The study also provides further evidence that memories are stored in networks of neurons that form memory traces for each experience we have.

Thinking, being naturally immersed in memory, shares its features. The differences between kinds of memory are reflected on neurological level, nevertheless, although separated, they often share neurological regions yielding kind of resonance, for example, *She is like lemon juice* apart from semantic regions activates sensual ones. (This is important for co-occurrence and reconciliation presented below).

[2] When Hubble's study of nearby galaxies showed that the universe was in fact expanding, Einstein regretted modifying his theory and viewed the cosmological constant as his "greatest mistake". However, now it is again seriously reconsidered.

[3] The term introduced by Richard Semon, German zoologist, in 1921.

When we gain a novel thought, a new engram appears and once it is formed it becomes part of memory/ies. The trace is left and cannot be wiped out. This must greatly influence the way people think, and especially what they think. Namely, they tend to think what they have already thought. Stereotypes are the most commonly recognized members of this group. In light of neuroscience canyonical thinking is biologically grounded.

Second, apart from biological, there are pragmatic reasons of this constancy. Our tendency to stay within/in the canyon seems to be ruled by Zipf's principle of least effort (PLE) (Zipf, 1949). The principle may be briefly spelled out as: the greatest effect with the least effort! It holds for all fields of human activity. The principle explains both: changes, for example, the linguistic preference for abbreviations rather than full forms as "flu" for "influenza"; as well as stagnation when its estimated value does not mean any gain as, for example, the refusal to replace the known computer software with a new one.

What is important, the principle seems to imply its conscious and free application assuming that people always strive to minimize the expenditure. How much freedom is actually realized is a different matter. The favorable balance may be disturbed by manifold factors, for instance, addictions. Sometimes the confrontation between evidence and reason turns into a battlefield on which the latter loses. The experiments conducted to investigate possible change of our opinions concerning others show that despite the fact that the evidence was sound, people chose not to adjust their beliefs to the new pieces of information, no matter how irrefutable these were. Once judgments have been formed, they have tendency to persevere even in face of totally discrediting data (Anderson *et al.*, 1980). This is possible due to the nature of brain (undoubtedly, it is difficult to leave a precipitous canyon) but also due to PLE because people see no reason to invest in such an unprofitable change. No additional psychological aspects that may block the change as rigid thinking, fears or compulsions have been considered, although they may pose an insurmountable obstacle to bear a new thought. For example, trauma makes canyons deeper and sometimes less reasonable, for a victim may even avoid people in the shoes similar to the ones the oppressor used to wear. Marginally, note that of special interests may be here the link between canyons, persuasion (psycho-manipulation), and PLE.

Canyons are carved by experience, either sensual, emotional, or discursive (information, persuasion, argumentation). The most intriguing, however, are canyons that enter by the back door. They often accompany "official visitors",

i.e. messages (or events) we are aware of. Such invisible guests are in fact canyon *occurrences* stemming from canyon *types* encoded in the language. In other words, some canyons are an inherent part of language and when language is used to communicate, canyons pass unnoticed but obviously they bear their content. Two such canyons can be specified: Hannah Arendt's *petrified analogies* and Lakoff and Johnson's *conceptual metaphors*. In cognitive terms, both are codified mappings of one domain (source domain) into another (target domain). This will be specified in the sequel.

Hannah Arendt (see: Arendt, 1991: 153) (following Kant) observed that abstract concepts are not referred to with the vocabulary indirectly related to our thinking abilities but by means of the words primarily connected with our common sensory experience. The process of borrowing the words is not arbitrary but based upon analogy. For Kant, analogy (metaphor) is the only way of being of pure reason. Metaphysical knowledge is possible due to analogy. According to Arendt all philosophical concepts are metaphors, which she calls *petrified analogies*. The function of metaphor is to direct the mind towards the world in order to connect mind's activity and the abstract outcomes of its activity with comprehensible words directly related to the world. One of the examples is the word *idea*. When Plato was introducing this word into philosophy he could hear it occasionally used in a pre-philosophical sense; it meant a pattern, model, image that an artisan must have before his eyes to make a concrete object like a vase, or a robe. Through such an etymological insight into words referring to abstract concepts there emerge petrified canyons with their dormant power of directing thoughts towards source domains, *i.e.* their original meaning.

Similar mechanism of viewing one thing in terms of another stands behind other canyons inherent to language, conceptual metaphors. Conceptual metaphors are glimpsed behind linguistic (dead) metaphors and are a cognitive phenomenon of mapping, as the tiny example below shows:

a. *Man consumes energy. Machine consumes energy.*
b. *Replace part of the body with… Replace part of the machine with…*

The conceptual metaphor here is: MAN IS A MACHINE.

Conceptual metaphors display systemic nature and show that we are more rational than it may have seemed so far. Lakoff and Johnson, having analyzed

some basic conceptual metaphors like: LIFE IS A JOURNEY, LOVE IS WAR, TIME IS SPACE, CATEGORY IS A CONTAINER concluded that they pervade language and exert great influence on our thoughts and perception (Lakoff, Johnson, 1980). Nevertheless, their power in carving canyons is still underestimated. Strong connection between conceptual metaphor and models and paradigm is especially noteworthy in this context.

Canyons are a hidden power behind the throne. Concrete thoughts, decisions, and actions reveal their presence but not necessarily make them explicit in the form of clearly stated assumptions or reasons. Although they are detectable traces in different brains regions, the question how to elicit them remains open. The next question is how to change or replace them in order to initiate out of the box thinking. The strategy proposed is called *plaining*.

3. Plain

You have just managed to get upon the canyon edge. Standing on the cliff, you can see a plain all around with its fairy colors and shapes. New perspectives, almost unlimited number of directions, and finally… the necessity to choose one in order to continue the march.

Any kind of invention (but not only) is closely connected with a more general process that I call plaining.[4] One reaches the upper edge of the canyon and gains a double view, an old one on the canyon and a new one on the surrounding plains. Some fusion of the views is experienced and, in result, each looks different.

Plaining would consist in providing the system of thoughts (canyons) with a novel point of reference. On the one hand, it is true that everything is undergoing change in a continuous manner, so that we can enjoy novelty all the time. But on the other hand, we already have fixed engrams. Therefore, only in some cases, plaining may be a spontaneous response to the stimuli coming from the outer world. More often, it must be an intentional act performed with some effort. As the history of science shows, plaining that stands behind the eureka moments of the creative process, although is experienced as sudden and unexpected, is always provoked by the preceding thought labor. The question is how this crucial moment may be captured and turned into a more regular practice. This is not

[4] Plain – a large stretch of flat land, but also: clear, easy to see, hear or understand.

a new question and, for example, the creative use of metaphors is one of the answers. The present proposal is its natural extension. To this aim, next two steps can be made: *co-occurrence* and *reconciliation*.

4. Co-occurrence

You look and compare in order to choose the most suitable way or at least the one you like the most at the moment of choice.

Our brain tends to compare things. It also focuses on comparing things that are easily comparable and avoid difficult comparisons (Ariely, 2008: 7). We are always looking at things around us in relation to others, and not only physical things but states, emotions, attitudes, points of view, abstract concepts, anything. We always compare, and "analogy is the core of cognition" (Hofstadter, 2001). Most people even do not know what they want without comparison. Co-occurrence is a natural environment of comparison. Every co-occurrence of any items (experienced, perceived, thought of, imagined), is like reaching the edge of the canyon in the sense that two perspectives meet at the same point, some center of comparison. For example, the experience of passing through the shady canyon exerts influence on our attitude towards the sunny plains. Similarly, every thought and experience modify what is coming next, which may be called the extended priming effect. Even if the influence is subtle or not obvious, it seems that it always affects our ways to certain degree.

Most spectacular co-occurences procured by men in the fields of science (eureka effect), arts, and jokes (humor) have been described by Koestler as bisociation (Koestler, 1964). Koestler, investigating the secrets of creativity and inventions of various scientists and artists, noticed that their way of thinking is not associative but bisociative. He coined the term in order to make a distinction between the routine skills of thinking on a single plane, and the creative act, which always operates on more than one plane. The former can be called single-minded, the latter double-minded, "transitory state of unstable equilibrium where the balance of both emotion and thought is disturbed" (Koestler, 1964: 34–35). For Koestler, bisociation is the mixture of concepts taken from two contexts or categories of objects that are normally considered separate by the literal processes of the mind. It means to join unrelated, often conflicting, information in a new way. The pattern underlying the creative act is "the perceiving of a situation in two

self-consistent but habitually incompatible frames of reference" (*ibid.*: 35). This has been justly objected by Hans Lenk who noticed that we frequently deal with more than two plains and, therefore, there are "multiple collisions, collusions (playing together), confounding phenomena, interconnections and inter-stimulations of many kinds and planes…" (Lenk, 2007: 307). More general term of co-occurrence adopted here, embraces an arbitrary number of elements compared. Moreover, it covers all cases of *interstimulations* and not only those characteristics for scientific and artistic achievements or jokes.

For Koestler there are two things making co-occurrence, and thus comparing, interesting. The first is pleasure found either in beauty of any kind (art) or in good humor (jokes). The other is the benefit of introducing a new model in science. Our point of departure is different, namely, the motivation to compare what co-occurs is a need to fill in gaps. Gaps arise in a wide variety of situations when, for instance, we face the unknown or feel lost, and are just a characteristic feature of our human condition. Gaps are byproducts of canyons and directly the effect of the way our brains work. The subsequent step, reconciliation, aims at gap filling. Davidson (see: Davidson, 1984) remarked, *a propos* the role of similarity in metaphorical meaning that everything is like everything else. So what is so interesting in comparing? I think that the chance for filling a gap, *i.e.* reconciliation, is.

5. Reconciliation

Reconciliation, like a puncture, forces us to stop and change…

Reconciliation is filling in gaps. Practically, it is a co-occurrence that induces change in thinking, *i.e.* a canyon shift which later may be manifest in action. But this change is always motivated by the discomfort of a gap. Any arbitrary co-occurrence may result in a kind of "puncture" in the way of thinking and resembles re-pumping of our mind. Reconciliation, by definition concerns only the switch of thinking and not the sways of moods nor cases of changes of cognition connected with physiology as, for example, the dependence of our sense of time flow on blood pressure. It must be admitted, however, that it often follows feelings[5]

[5] That affect is not necessarily post-cognitive was for the first time claimed by Robert B. Zajonc.

and is not so much the outcome of reasoning and argumentation as of mere comparing, as eight examples presented in the sequel show. It should be emphasized that a novel canyon introduced by it can transform perception, meaning, understanding, attitudes, and deeds.

Comparing is a vastly discussed topic. From Aristotle up till now a lot has been written on similarity, resemblance, analogy, common characteristics (Richards), associated commonplaces (Black), potential connotations (Beardsley), entrenched associations (Grady), or in more dynamic terms, mapping (Lakoff, Johnson), redescription (Black), and many other terms linked with metaphor and comparing. Although it is impossible to deal with this abundance in this paper, some traits of a comparing act must be specified to describe how and when it may result in reconciliation. It would be convenient to preserve the cognitivist terms for two domains compared (usually two are considered but I do not exclude more): source and target. Typically the target system is new or abstract – it is to be understood, explained, investigated, while the source system is the one in terms of which the target system is described, it is familiar and perhaps visualisable. Source and target correspond, respectively, to:

– the elements of metaphor structure *My dog is a donkey* (*dog* – TARGET; *donkey* – SOURCE);

– to scientific field of investigation (TARGET) and its model (SOURCE), *e.g.* sound waves – water waves;

– to a problem (TARGET) and its solution (SOURCE), *e.g.* MURDERER – a beast or a virus;

– to something unnamed (TARGET) and its proposed name (SOURCE) x – idea. The last one is the case of Black's catachresis.

As the authors of *Mental Leap* observed, similarity, structure, and aim constraint comparing (mapping, analogy) (Holyoak, Thagard, 1995). I claim that the predominant aim of comparing is to fill in the gaps and not mere interest or curiosity mentioned by the authors. Koestler's art and joke bisociations as not induced by gaps are not cases of reconciliations. The examples of reconciliations are:

1. Sensory illusion[6].
2. Metaphor.
3. Model in science.
4. Advert especially mind seducing.

[6] Exceptional character of a gap.

5. Some psycho-manipulation techniques.
6. Biblical parable.
7. Generative metaphor.
8. Psychotherapeutic story.

They all consist in seeing something as something else and are gap-oriented.

	Co-occurence	Reconciliation/ puncture	They
Sensory illusions	of two (or more) physical items	brain cognitive gap	cheat the senses
Metaphors (linguistic)	of two (or more) words, phrases, sentences	gap in meaning	express otherwise inexpressible*
Scientific models	of two domains (one theoretical)	gap in understanding why or how	elucidate
Seducing adverts Psychomanipulation	of two (or more) visual, auditory and linguistic items	gap in control	seduce to do something
Parables	of two layers of reality: physical and metaphysical	gap in access	reveal what is otherwise covered
Generative metaphors Psychotherapeutic story	of two phenomena: problematic and generative of two stories: problematic real life story and generative reference story	gap in solution	inspire to find solution

* It seems that even paraphrasable metaphors are created in the situation when the proper meaning is sought and not found in literary language. Besides, there are also gap-lacking metaphors used as pure decoration.

All the above examples are briefly described below.

1. Optical illusions boggle us but what we know for certain is the fact that they result from such a co-occurrence of elements that exposes gaps in our brain's fragile sense of reality. For example, two lines being actually perfectly straight and parallel look like they were bulging outward in the middle. Or if you hold two boxes, one large and the other small, of equal weight, you will perceive the larger box as lighter. One feels these illusions despite all of the information to the contrary.

That is the most tactile case of the power of co-occurrence and reconciliation revealing how helpless we may be while experiencing them.

2. However, such a feeling of helplessness seldom accompanies metaphors. Black initiated the change of paradigm concerning the metaphor (Black, 1962b). Since then metaphor has made a brilliant career leaving the exile of poetry, where it was admired but not treated seriously, and becoming the main mechanism of thinking. Metaphor may be described by means of three properties spelled out by Aristotle (*Poetics*, 1457b): transference, transformation (of meaning), and similarity/analogy (Rybarkiewicz, 1997). Notice that these properties are all known by various names in the philosophical, semantic, pragmatic, cognitive, literature. Aristotle's transference is a special co-occurrence of words of which one is used beyond its usual context, like "broken-winged bird" in:

Life is a broken-winged bird
That cannot fly.[7]

Broken-winged bird in this context is like a sudden sight of plains and as both landscapes are compared, so are the terms in the poem. The gap in meaning is filled by means of Aristotelian analogy. In the resulting reconciliation mind fixes the attention on the most accessible in a given context meaning and adheres to it. This accessibility is driven by experience so the interpretations may vary significantly. And just as only one direction of march across the plains is possible, comparing cannot be reversed (and thus metaphorical similarity is asymmetric):

(1) *His dog is a donkey*.

is not a synonym of

(2) *His donkey is a dog*.[8]

Black says that in metaphor we look at one thing through the lens of the other. Nevertheless, as more recent theories point out, both elements constituting metaphor influence each other and the meaning of the apparently neutral element – target – is also altered (for example, blending theory).

[7] From *Dreams* by Langston Hughes.

[8] Different features are the clue of interpretation: in (1) (possibly) obstinacy and in (2) (maybe) attachment.

The role of metaphorical co-occurrence has been thoroughly discussed in a great number of areas. Generally, it helps to convey complex information in brief time. It reserves blank space for individual interpretation, highlights and hides particular aspects of the presented information. Due to these advantages it has been adopted as a handy tool in many areas, some as remote from language as visual arts, music, dance, or architecture. Referring to these cases by means of *co-occurrence* and *reconciliation* permits to preserve traditional meaning of the word *metaphor*, which may be an additional advantage of the presented approach.

3. Scientific models seem to share the cognitive mechanism with metaphors. For this reason, they are also called metaphors. However, their sources and targets vary essentially, which justifies keeping separate terms for them. Many scientists who commented on the nature of their discoveries had the idea of a model and employed it in practice. For example, Huygens developed the wave theory of light making use of the known wave conception of sound, and Fourier's theory of heat distribution was based upon the analogy to the fluid dynamics laws. Scientists like Maxwell consciously applied models that were some known structures of abstract relations to construct their own theories. Black distinguishes scale, analogue, mathematical, and theoretical models and describes the conditions of their use (Black, 1962b). For example, analogue model reproduces the structure or web of relations of the original in some new medium. Its dominating principle is isomorphism. Theoretical model emphasizes the transfer of elements of one (secondary) system, which is "relatively unproblematic, more familiar, or better organized" (Black, 1962b: 230) (domain) into the primary system, which is the original field of investigation. There must be some "principle of assimilation" to start the transfer, and that principle was referred to in many various ways: analogy, intimations of similarity, framework through which one system is seen. Black calls this transfer the metaphorical redescription of the domain investigated. The transfer is a reconciliation resulting from the co-occurrence of two domains of which at least one is theoretical, the other may be "a serpent swallowing its tale".

4. Adverts are success pursuing co-occurrences directed to raising sale rate. The gap lies in the control of the market. Heath claims that the most effective are "mind seducers" (Heath, 2012: 4–6). He describes an astonishing case of advertising campaign: in 2001 a mobile network operator was launched under the name O2 and ran advertising campaign that showed blue water with bubbles bubbling through it and some lilting music in the background. The information was rather enigmatic: *O2, See what you can do*. Despite its cryptic character (blue water

and bubbles are hardly characteristics one might look for in a mobile phone), O2 had become market leader in four years. How is this possible? All schools of adverts sticking to a reliable information presented in an attractive way could be surprised by this absurd campaign. Heath suggests that the success may be attributed to the seduction of our consciousness. One of the possible explanations of how mind is seduced by such an advert is *mere exposure effect* (Zajonc, 1968). Mere exposure effect subsumes that the contact with a given thing alone suffices to change the attitude connected with this thing. It also happens in case of subliminal or peripheral exposure of less than 40 milliseconds. All such phenomena may be further explained by a Perceptual Fluency Model of R. Bornstein according to which perception without awareness "leads to inexplicable familiarity, which in turn raises favourability" (Bornstein, 1992, from: Heath, 2012: 81).

5. Closely connected with seducing are some methods of propaganda and psycho-manipulation. They also often resort to a straightforward co-occurrence. The most evident is the so called association technique already recommended in the Antiquity: Greek and Roman rhetoricians discovered that what we now call visualization (gr. *hypotyposis*) is more powerful in persuasion than any logical arguments. Some words as *flower*, *sun*, *lion*, *sea* immediately evoke an image thus activating various neural regions and have an overwhelming effect making us see, smell, hear and feel emotions. In brief, they bring synergy effect, which is difficult to control.

Especially Machiavellian is the co-occurrence of someone's name and a lie. When consequently repeated, a lie like: *X is a thief* adheres to a person spoken about. Even if officially the audience declares misbelief, *X* is perceived as contaminated, which may be summed up: *X has something to do with a theft*. Blocking the canyon shift is almost beyond the will of the persuadee. Thanks to the mere exposure effect, reconciliation is flexibly adjusted to the purposes of the persuader. Notice that *X is a thief* is not a metaphor but, certainly, metaphors can also persuade with the same mechanism.

6. Parables serve not the control gap as adverts and psycho-manipulation do but are to fill in the gap in our access to otherwise inaccessible knowledge, experience, world. In the Bible they are to reveal the matters of the Kingdom of God to people. They are not mere moral instructions as some would like to think (McKenzie, 2005). In this sense a parable is a co-occurrence of two worlds: the known human, and the unknown divine. The analogies found may be so various that even the Apostles requested Jesus to explain the parables. Hermeneutics is of

much help in this case as the audience having no idea of the target (heavenly matters) has difficulty in the reconciliation; contrary to the scientists who match more known (a model) to a lesser known but known (theory they are just developing).

7. Generative metaphor is a practical strategy of problem setting that employs the typical co-occurrence aiming at reconciliation. It aims at finding a solution *via* transference of the problem somehow hulled out and set in a new context. The idea was introduced by Schön whose main field of interest was social policy (Schön, 1993). Schön noticed that dominant metaphors, *i.e.* co-occurrences within a discipline define the problems, *i.e.* canyons of this discipline and argued that the essential difficulties in social policy have more to do with problem setting than with problem solving. For Schön "the framing of problems often depends upon metaphors underlying the stories which generate problem setting and set the direction of problem solving" (*ibid.*:139).

As an example he explores the case of slum housing. If the underlying co-occurrence of a slum is a *blight* or *disease*, then this encourages a reconciliation governed by the corresponding medical remedies, including the surgery whereby the blight is removed. On the other hand, if the co-occurrence is that the slum is a *natural community*, then this orients a reconciliation in terms of enhancing the life of that community. The two co-occurrences and reconciliations are quite distinct and have quite different consequences in practice.

A variation of this kind of problem setting appears in the context of psychotherapy in a form of a story where the problematic real life story is replaced with a generative reference story seen either as a reinterpretation of the past or as a plan for future behavior. The psychological literature abounds in examples.[9]

6. Summary

1. Our thoughts flow in canyons, at neural level they tend to freeze and remain stable. For us, it means that once we have learnt something, we stay within this "knowledge" for two reasons: first, change would entail effort (which is regulated by PLE); second our brains are adjusted to survive, their engrams must be fixed to make us react quickly and properly if, for example, we come across a viper. Our tendency to stick to canyons is also encoded in language.

[9] See, for instance, Rosen (1982).

Petrified metaphors (Arendt) and conceptual metaphors (Lakoff and Johnson) are *petrified* proofs of this process. Usually we think, react, and act in a canyonical way and canyons are our basic assumptions.

2. Despite the resistance mentioned, we can leave a canyon. This is realized by means of a co-occurrence that presents us with a novel area to be compared, and gap-filling reconciliation which is an actual choice of the direction of the shift of canyon. I cannot think of any case of just leaving a canyon and remaining on its edge in a pre-decision state. Rather, our thinking tends to sink into another canyon, *horror vacui* at least on Earth, and either some external agents or we choose which. Two variations of the whole process are possible: aware or unaware.

3. An adequately procured co-occurrence and the resulting reconciliation is a more or less overt technique applied in manifold areas (examples above), but the main emphasis is laid upon turning it into a habitual thought pattern that not only enhances our creativity and rationality but also expands the sphere of canyons under (our own) control.

Natural field of further investigation will concern the effects of reconciliation: a canyon shift often influences categories, recalibrates assumptions, readjusts perception and touches emotions (not necessarily in this order). In consequence, purposes, decisions and concrete deeds are affected. Alas, often covertly. Then, discrete reconciliation should be another focus of inquiry.

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