

## Mind, Thinking and Creativity

- Panel Intervention #1: Analogy, Metaphor & Symbol
- Panel Intervention #2: Way of Knowing

### Intervention #1

- Analogies and metaphors are to be understood in the context of *reflexio* (Bošković) and *tarka* (Indian philosophy)
  - “To remove doubts and contrary beliefs, and to convince us of the probability of the existence of what is to be known or realized.”
  - As such, they are examples of the many strategies to nurture the process of cognitive transformation.
  - Other strategies in the context of spiritual traditions:
    - Intense critical analysis: the causes of suffering => psychology and philosophy
    - Visualization practices: mandala (symbolism), pictures and statues (Seeing the Buddha is seeing his Dharma)
    - Pilgrimages and retreats
- In the context of scientific creativity, two practices stand out:
  - The use of geometry (Bošković)
  - Gedankenexperiment (Einstein)
- As sub-products of these attempts to provide a vision that help us channel our energies in order to bring about an experience of realization, we may include:
  - Vulgarization: writing a book, doing a presentation to non specialists.
  - Poetry (Bošković)
- Humor
  - Analogies, metaphors and symbolism are used as means to increase one's intimacy with reality so that it operates its transformation.
  - The more intimate one is with a phenomenon, that is, the more one can observe and be aware of its manifestations, the greater is the likelihood of realizing its structure.
  - However, that process of becoming more intimate is going to bring us in a state of inhibition of action. There is a moment when we feel we cannot go further.
  - This is when humor, as a means of stepping out of this intense situation, is going to do its work.
  - To use an expression coined by Berthol Brecht, humor is a kind of Verfremdungseffekt.
- In many religious environments where people undergo intense spiritual training, humor is always present: monasteries (Christian and Buddhists).
  - As an historian of religions, humor is a sign of the health and the humanness of a religious traditions no matter how severe are the rules or the modes of living.
- If analogies, metaphors and symbolism are addressing the cognitive conditions conducive to an experience of discovery or creativity, one can say that humor is dealing with the emotional or existential conditions.

- I would like next to present a systematic account of these existential conditions.
- The first cause of the experience of creativity is not a cognitive model, a conceptual systems or a specific vision of reality, but distinct subjective experiences.
  - These models are emerging from going through an existential experience and once they emerged, that is, once they are grasped by our focal awareness (to use Polanyi's expression), they have to move to a status of subsidiary awareness to be fully effective and fruitful.
  - It is once we become aware of these subjective experiences that we are able to channel our energies and, to some extent, to overcome many emotional conditions that inhibit our efforts.
  - The two main causes of inhibition are:
    - Emotions that make us give up (depression, discouragement)
    - Temptations to deviate from the endeavor (benefits, reputation)
- In other words, by knowing the nature or the structure of these subjective experiences, we are going to be in a better position to take control of the creative process.

### 1] Satisfaction of a desire

- Desire to survive as an important source of man's creativity.
- Even to be observed in all forms of life.
- The engine of evolution
- Desire = absence of. A hole to fill, a state in disequilibrium to reestablish
  - As such, a question is a type of disequilibrium, so that making sure that we always have questions to answer is a good way to stay alert and motivated.
- Thus, the desire to have an experience of resolution is an important motivator. In order to be fully effective, it has to supersede the desire for the fruits indirectly related to that experience, for example, social recognition, material advantages, etc.
- Reductionism as a state of mind where no more questions are being generated, where everything is explained.
  - One of the problem in social sciences.
- To be more precise: reductionism that puts the observer outside what is to be explained as opposed to a synthesis that helps a person explore the relations with his or her environment, that is, a type of knowledge that allows us to do efficient and gratifying actions.
  - In the first case, every observed phenomenon is a manifestation of the same principle so that it is not really seen for what it is: religion as opium of the people; religion as a neurotic state, etc.
  - In the second case, the reality of one's actions and their consequences always challenge our reductionist view, thus forcing it to be more and more refined.

### 2] The experience of detachment

- We mentioned the importance of stepping back from a problem, to disentangle oneself from the particular manifestation of a reality that is meant to be explained using abstract and perhaps more universal principles.
- Very often, the experience of stepping back is to be taken literally.
  - Poincaré's experience: as he was fishing he found the solution of very complicated mathematical equations he was working on.
- The experience of detachment can be generated at a more subtle level with regard to the creative process.
- We just said that too much intimacy may inhibit understanding
  - Experiencing the beauty of the sunset reinforced the idea of the sun moving around the

earth.

- Attachment to the emotion resulting from finding a solution, not to mention the social implications of being recognized as the source of the solution.
- Here, detachment is connected to one's attitude toward the pleasant emotional states related to the experience of discovery.
  - Buddhist stages of meditation where the feeling of well-being has to be given up in order to move to the next stage
  - Critique of quietism in Christian and Buddhist spirituality.
- With regard to the cognitive state, I would like to refer again to Polanyi's model of the two types of awareness and the experience of solving a Zen kôan.
- The aim of this practices is to force a focal awareness to the status of subsidiary awareness.
  - “The elephant in the picture” test
  - The understanding of a complicated sentence
    - To allow for more fluidity with the various meanings of the words
  - Solving a puzzle: considering many pieces at the same time.
- In practical terms, it means not doubting the foundations of one's knowledge of reality, but to take a short distance so that their negations can be included in the picture.
- The cultivation of the sense of detachment is therefore connected to the ability of cultivating a tolerance to contradictions and discrepancies.
  - The study of the frequency of spiritual experiences shows a positive correlation with this ability.

### 3] The act of submission

- The opposite to the experience of detachment
  - Almost blind faith in a priori principles.
  - The desire to push these principles to their limits, to see what they can give.
  - We saw earlier how these principles can serve as levers producing experiences of detachment toward our prejudices, our presuppositions.
  - For an idea to shatter an entire conceptual system, it requires a lot of energy.
    - One has to be careful that this energy is not spoiling our relationship with other people.
- The fact of having two contradictory attitudes at the basis of the process of creation, that is, detachment and commitment, implies that the whole process rests on the acquisition of a skill.
  - One does not simply follow a modus operandi; on the contrary, one has to learn how and when to apply these two contradictory principles.
  - It is learning how to breath properly.
  - It is like the interpretation of religious texts: we have to decide when is the text to be understood in a symbolic way, when it is literal.
- This third principle can also be an existential guide that helps us in our endeavors.
  - The predominance of action over knowledge: knowledge is generated by action
    - the white page syndrome
  - When one does not know what to do, just do something.  
New measurement, new experiment, read a book/article on the topic

### 4] The experience of inhibition of action

- If the 3<sup>rd</sup> principle is an inversion of the 2<sup>nd</sup>, the present principle is an inversion of the first one.
  - First: the experience of resolution is what guides us, that serves as motivation.
  - Here, it is the experience of inhibition of action
    - Understood as an experience of passage

- Although one is intuitively reluctant to go through it, one should view it as the most direct road to experience of creativity.
- In other words, one should value this painful experience more than the experience of resolution, an experience that, although rewarding, is tempting us into stopping our progression and into looking inward.
  - The experience of inhibition of action is also without ambiguity.

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## Intervention #2

### Ways of Knowing: Why we do not have a TOE yet?

- A TOE should be in principle a theory that allows us to make sense of all the observable phenomena of nature.
- This is where the problem lies: there are two different ways of making sense of the world.
- The first is related to our ability to grasp the world as a whole.
  - It projects us as an observer outside the world that is thus comprehended
  - We are passive, but very much aware of what is happening
    - Like watching a game as a spectator
  - I would call this first way of knowing the contemplative way and the attempt to reach an all comprehensive knowledge, to make it fully harmonious, the problematic of contemplation.
- The second is related to the desire to perform successful actions, to be able to transform the world in a satisfactorily way.
  - The second way of making sense of the world forces us to be fully intimate with the world, to leave our position of overview.
  - The type of knowledge that is being produced are specific to the situations occurring within the system.
  - The attempt to make this type of knowledge more perfect is what I would call the problematic of instrumentalisation.
- The two problematics and the types of knowledge they produce are irreconcilable.
  - Not in the sense that there are logically incompatible, but rather in the sense that the mind is incapable to hold AT THE SAME TIME these two types of knowledge.
  - The analogy of the walk using a map in an unknown city:
    - The walking
    - The consultation of the map
- It thus presupposes that it is impossible to condense these two types of knowledge into one single piece of information like a mathematical formula or a single principle.
  - If one wants to have a TOE that could be printed on a T-shirt, one will never find it.
- A choice has to be made: do you want to understand the world as it is really or are you going to be satisfied with approximate rules or laws that provide us with adequate means of transforming the world in which we live?
- In addition to the fact that the two types of knowledge cannot be condensed in one and that the mind cannot seized both these types at the same time, the reason why they are incompatible is connected to the fact that a deepening of one's contemplative knowledge really transforms us into some kind of mystics where actions become more and more difficult.
  - The mystical affirmation that the world is an illusion, that there are no objects seem to be

confirmed by the some principles of quantum mechanics.

- If the world is really an illusion, then no action are possible; we sit and enjoy the view of the movie. Mystics do act, but their intervention in the world is called non-action.
- Similarly, the probabilistic nature of reality leaves us without absolute certainty about the efficiency of one's actions.

• Bošković's ideas also support this type of process of alienation resulting from the problematic of contemplation.

- The unreliability of sense experience. This means that the knowledge directly given by sense experience is doubtful (the movement of the sun) and that reality has to be grasped by the mind (induction).
- Practical knowledge relies on a literal interpretation of sense experience.
  - A formula that predicts the movement of an object through space and time rests on the assumption that the object is real, that space is real and that movement is real. Even if we were to show that all these things are illusion, it remains that the success of our actions at this level of reality requires an acceptance of their existence.
- The unreliability of measurement. According to Bošković's theory, a meter situated at one place in space-time continuum is not the same at another place. In other words, an object is being transformed by the very fact that it is moved from one location to another.
- One can say the same with time. One second now is not the same second as yesterday.
  - All measurements are approximation.
  - Measurements cannot reveal the world as it is.
  - The inverse square law as an example: the difference between a decision-less state of mind (contemplative) and the decision of fixing it to a point so that one can act.

• In short, I would say that the structure of the mind, as a collection of two types of knowledge, prevents us from seeing simultaneously the state of a system and the actions of that system.

• The solution

- When the contemplative knowledge moves from a state of being seized by the focal awareness to the state of being seized by the subsidiary awareness.
- In other words, when one becomes one's with the map and that it is being projected onto the world in which we have to do actions.