

Positive Psychology of Creativity

System Perspective by Mihaly C.

Big 'C'

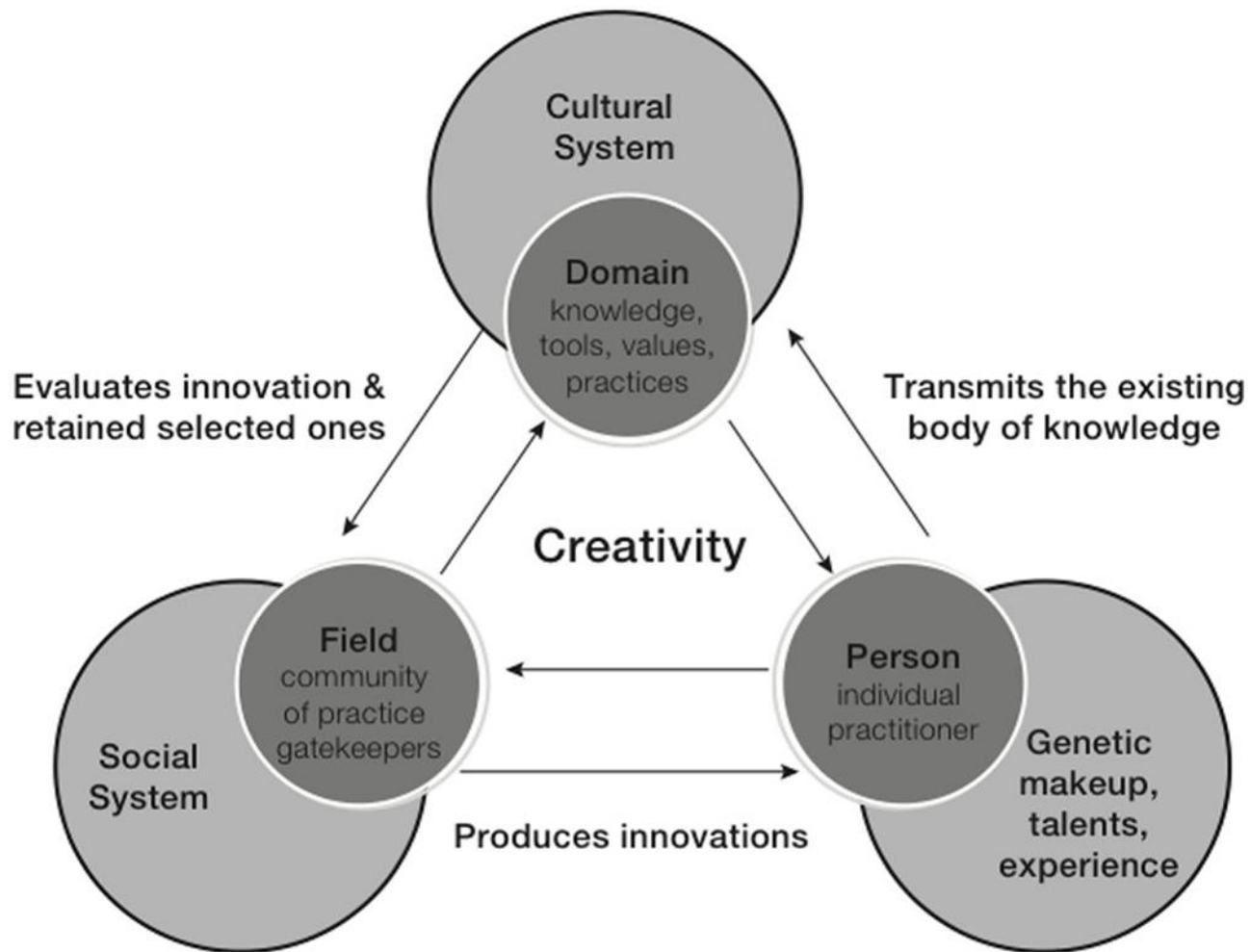
Psychologists tend to see creativity exclusively as a mental process, but creativity is as much a cultural and social as it is a psychological event. Therefore what we call creativity is not the product of single individuals, but of social systems making judgements about individual's products.

Creativity occurs within a system that is made up of a domain, a field, and a person.

Within the **domain** (Arts, Physics, Medicine, Computer science, etc.) there is the **field** which comprises of individuals who are experts in the specific domain. These individuals function as the domain's gatekeepers, and they are responsible for which new ideas should or should not be included in the domain (e.g. Relativity theory by Einstein).

The last part of the system is the **individual person**. Therefore, creativity happens when an individual uses a domain's approaches (like a mathematical formula) to create something new (like a new hypothesis or piece of music), and the new product is acknowledged by the field's gatekeepers.

Creativity is a process that can be observed only at the intersection where individuals, domains, and fields interact.



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- For creativity to occur, a set of rules and practices must be transmitted from the domain to the individual. The individual must then produce a novel variation in the content of the domain. The variation then must be selected by the field for inclusion in the domain.
 - But most novel ideas will be quickly forgotten. Changes are not adopted unless they are sanctioned by some group entitled to make decisions as to what should or should not be included in the domain. These gatekeepers are what we call here the field
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- For e.g. In physics, the opinion of a very small number of leading university professors was enough to certify that Einstein's ideas were creative. Hundreds of millions of people accepted the judgement of this tiny field and marvelled at Einstein's creativity without understanding what it was all about.
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■ **The Cultural Context:** Role of Evolution, Culture & Learning:

Creativity presupposes a community of people who share ways of thinking and acting, who learn from each other and imitate each other's actions. Creativity can be thought of involving a change in **memes** – the units of imitation (Dawkins,1976) as the building blocks of culture.

Mememes are similar to genes in that they carry instructions for action. The instructions contained in mememes are transmitted through learning. By and large we can learn mememes and reproduce them without change; when a new song or a new recipe, technique is invented, then we have creativity.

The social context:

In order to be called creative, a new meme must be socially valued. Without some form of social valuation it would be impossible to distinguish ideas that are simply bizarre from those that are genuinely creative.

For ex. Nowadays everyone agrees that Van Gogh's paintings show that he was a very creative artist. However, during his period his genius was not recognized and he was let die alone and poor. His canvasses, 100 years ago were just the hallucinatory original works of psychopath. He became creative only after a number of other artists, critics, and collectors interpreted them in terms of new aesthetic criteria and transformed them from substandard efforts into masterpieces.

In the sciences as well as in the arts, creativity is as much the result of changing standards and new criteria of assessment, as it is of novel individual achievements.

Ideal conditions for creativity would be a social system that is highly differentiated into specialized fields and roles, yet is held together by what Durkheim (1912/1967) called the bonds of 'organic solidarity'.

The role of the field:

The gatekeepers who have the right to add memes to a domain are collectively designated the field. Some domains may have a very small field consisting of a dozen or so scholars across the world. Others, such as electronic engineering, may include many thousands of specialists whose opinion would count in recognizing a viable novelty.

Any field that is able to attract a disproportionate number of bright young persons is more likely to witness creative breakthroughs. For e.g. bright young men and women are attracted to the field of computer sciences because it provides the most exciting new intellectual challenges. How much creativity there is at any given time is not determined just by how many original individuals are trying to change domains, but also by how receptive the fields are to innovation.

Thus, to increase the frequency of creativity, it may be more advantageous to work at the levels of fields than at the level of individuals.

For example, some large organizations such as Motorola, where new technological interventions are essential, spend a large quantity of resources in trying to make engineers think more creatively. This is a good strategy as far as it goes, but it will not result in any increase in creativity unless the field i.e. management is able to recognize which of the new ideas are good and has ways for implementing them, that is, including them in the domain.

Whereas engineers and managers are the field who judge the creativity of new ideas within an organization such as Motorola, the entire market for electronics becomes the field that evaluates the organization's products once these have been implemented within the organization.

Thus, at one level of analysis the system comprises the organization, with innovators, managers, and production engineers as its parts but at a higher level of analysis the organization becomes just one element of a broader system that includes the entire industry.

The individual in the creative process:

Acc. to Systems model a person can introduce a creative variation, if he or she have access to a domain and must learn to perform according to its rules. It implies that **motivation** is important.

Next, divergent thinking & discovery orientation is relevant in this context. **Divergent thinking** is usually indexed by fluency, flexibility, and originality of mental operations (e.g. Radiation treatment of cancer)

Discovery orientation, or the tendency to find and formulate problems where others do not see any. Anyone who is technically proficient can solve a problem that is already formulated: but it takes true originality to formulate a problem in the first place.

In certain domains (e.g. music, mathematics) **genetic inheritance** may play an important role in directing interest to the domain and in helping to master it.

A great deal of **intrinsic motivation** is needed to energize the person to absorb the relevant memes and to persevere in the risky process of innovation.

To be able to innovate successfully, a person needs to have appropriate traits –one must persevere and be **open to experience**, as well as adopt apparently contradictory behaviors.

Acc to Mihaly C., creative persons are characterized not so much by single traits, as by their **ability to operate through the entire spectrum of personality dimensions**. So they are not just introverted, but can be both extroverted and introverted, depending on the phase of the process they happen to be involved in at the moment.

Perhaps the most salient characteristic of creative individuals is a **constant curiosity**, an ever-renewed interest in whatever happens around them. This enthusiasm for experience is often seen as part of the ‘childishness’ attributed to creative individuals.

Intrinsically motivated, creatives find their reward in the activity itself, without having to wait for external rewards or recognition.

While working, creative people experience flow, which makes goals more clear and time appears to stop.

Majority of Creatives like writers, musicians, and scientists, do creative work because they enjoy doing it. Flow is the joy a creative person feels when he works.

1) **flow has clear goals at every step:** When you're in flow, you know what you have to do. A musician knows which notes to play and a rock climber knows the steps to take, virtually without thinking. Likewise, a scientist who has made huge contributions to her domain has clear goals on how to solve specific problems. She is aware of the gaps in her field of knowledge and she wants to close them.

2) **A creative get instant feedback** on his actions when he's in flow. A musician hears with all his senses if his notes are true.

Creative people know how to give themselves effective feedback. Linus Pauling (Nobel Prize in chemistry) said that the difference between being creatively productive and nonproductive is the ability to assess your ideas and separate the good from the bad.

3) **Flow alters a creative person's sense of time.** An hour of violin practice may feel like only five minutes to an artist in flow. Poet Mark Strand once said that of the creative process, "The idea is to be so saturated with it that there's no future or past, it's just an extended present..."
