

Paradoxes of Creativity : Toward a Creative Society

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Creativity is a man's impingement upon the God's right. For in the beginning God was the creator and man the created, and now man arrogantly asserts that by being creative he too can be a creator. But God, I believe, would not mind his assertion - because after all God created man to be existentially somewhere between the creator and the created so that the most crowning characteristic of man is just such creativity, the apex of the tree of knowledge. Besides, some might even argue that God the creator himself may well have been created by the imagination of man. Thus, begins the twisted paradox of creativity.

Creativity is a trait or an act that harbors many paradoxes from the beginning. It is an act of man who is both created and creating at the same time. It is a highly irrational or supra-rational flare of mind that tries to reach a higher level of rationality. It relishes disorder in order to discover an order in it. It does not come at times of intense concentration but rather dawns upon all of a sudden at times of total relaxation.

Understanding some of the paradoxical nature of creativity should throw light on how we should deal with It, how to develop it and even how to thwart it consciously or unconsciously. Creativity is a very vulnerable entity. Though it is, like love, a many splendid thing, it is also an act, like freedom, that can be very easily suppressed. We need a creative policy for the development of creativity based upon a thorough understanding of these paradoxes. Common sense policies would not accomplish the purpose.

I will not dwell upon what is meant by creativity because we all have a pretty good notion about it. We believe, for example, that creativity is a process that bring something new into being; it is something more than intelligence; it is, as mentioned before, a flare of mind that defies

conventional rationality; it spearheads both the activities of the gifted persons and the frontiers of sciences, arts, technologies and thoughts which we call human culture and civilization; for all practical purpose, we may take the words creative, gifted and talented, and genius as synonymous; and there are only very thin walls between scientific, literary, artistic, even practical and other creativities.

Collectivistic vs. Individualistic

Many advocacies of education for the gifted presuppose a collectivistic approach to the problem, either in terms of setting up special schools or programs for groups of gifted students. Thus, you identify the talented children, preferably as early as possible, and send them to a special school, a special class or a special program where their potentials are encouraged to come to full fruition.

A case in point is the science high school in Korea, where supposedly students talented in science are selectively enrolled and study in an enriched educational environment. The purpose, of course, is to produce creative scientific talent, and hopefully a few candidates for the Nobel Prize.

A little more obliquely, we quite often encounter the advocacy that mass education breeds mediocrity and therefore the talented should be sent to a special class of school because the nation badly needs the highly talented. The assertion of this sort, however, often subtly espouses an elitistic notion of education whereby the present elites seek to perpetuate their superior social status.

One can, however, advance many arguments based upon an understanding of the nature of creativity that go counter to the idea of elitistic special schools.

To begin with, the creative mind abhors collectivity. By definition, and in practice too, the creative mind wants something new, something that group has not ever thought of, something that goes beyond the thinking of the group, conventions, and common sense. So far as creativity is concerned, the collectivity's pressure is something that one has to ward off. To be creative almost invariably means to be at variance to the prevalent

thinking, even at the risk of ridicule, persecution, and death in the extreme case. Quite often the creative person is at odds with the time and the place of his day. Many of them are taken to be anti-social, a-social and non-social. Van Gough was a psychotic. Gauguin was probably a schizoid. Solzhenitsyn was a resistant writer. A famous Korean poet Kim Sakat was a social outcast. We often hear stories in which an exceptional genius is almost idiotically naive, ignorant and unconcerned about his social affairs.

To the extent that conformity to the group is the strict social rule, the creative mind withers whether the group be a school, company or nation. A particular school may, of course, be more demanding and another less demanding in terms of conformity. But if the society is conformity-demanding in general, the school setting is also very likely to be conformity-demanding as is generally the case with the Korean schools. Therefore, if the science high school is demanding a certain degree of conformity, to that degree we come to a tentative conclusion that, as soon as the talented are scouted and taught in groups in the science high school, divergent creativity of their talent withers and only the abilities in convergent thinking develops, producing at best highly intelligent but non-creative minds who can pass highly competitive examinations but cannot engage in novel and independent pursuits of their own. This leads us to the question what we really mean when we say talented, gifted, exceptional, excellence, genius and the like. Do we mean those who do exceptionally well on the Scholastic Aptitude Test or on other conventional entrance examinations registering grades the 99 percentile point? Or do we want those who outcome with exceptionally novel, unconventional yet highly workable ideas? Do we want those who do exceptionally well on the piano following a score of music or those who do exceptionally in novel and independent musical interpretation or composition? There are of course places in the world for those 99 percentiles. But they are not the ones we want in the name of creativity and they are not the ones who spearhead the frontiers of human civilization.

The individualistic approach, on the other hand, presupposes that creativity is essentially an assertion of individuality. Therefore, it believes that the individualized environmental conditions are the most conducive to fostering creativity. Individualized learning through individualized

instruction with individually prescribed curriculum is always the ideal in any educational setting. It is especially crucial in the case of creativity development.

In the individualistic approach, one does not need to set up special programs, classes or elitist schools that monopolistically teach exceptional children and students. Instead, we need to create in ordinary or even mediocre schools those conditions in which individual students can enjoy fully individualized attentions encouraged, assisted and rewarded to pursue individual interests and concerns, in the course of which we may even expect the emergence of some exceptionally creative minds. Meanwhile the elitist schools and colleges would in the end produce only mediocre students or at best merely intelligent students if they do not individualize students' learning conditions. Those elitist schools and universities of the world noted for their creative minds are all invariably institutions where students enjoy a high degree of freedom of individualized pursuits.

What is at stake is not the establishment of special programs, schools and institutions for the gifted, but rather the individualization of learning conditions regardless whatever the school settings are.

Instrumental vs. intrinsic

Some years ago, a secretary from the Nobel Prize office visited Seoul. In an interview with the press, he in effect said, "Korea was reached a stage of sufficient affluence able to devote funds to scientific research with an eye to win a Nobel Prize someday. But the surest way to win a Nobel Prize is to forget all about the Nobel Prize and just concentrate on producing as many scientists as possible who are singularly fascinated and enchanted by the beauty of science. The Nobel Prize will then naturally follow someday." Here, then, is another paradox of creativity.

All too often the plea for the development of talent is advanced on the instrumental, functionalistic, or utilitarian ground. It is often argued that creativity is necessary for the advancement of technology which is in turn crucial for the economic survival of the nation. In this argument, only the instrumental value is ascribed to the creative minds, who are only to be usefully utilized for some extrinsic purposes. Intrinsic values of creative

acts are very seldom exalted and referred to.

The creative people themselves, on the other hands, hate, more than ordinary people, to be "utilized" like expendable cogs in the machine. They find their source of creative energy not from the expectation of some extrinsic utility of their act but from the intrinsic joy and ecstasy of finding and inventing new things. Therefore, as soon as the creative minds see that they are intended to be utilized and manipulated in a climate of instrumental thinking, they stop being creative.

We live in a world where instrumental thinking is prevalent. This has been especially so in Korea where, for the past thirty years, economic development was the sole end and all other activities such as politics, education, sciences and even arts and morals are rendered to be mere subservient means to that end. Because every deed brings a consequence, expecting that consequence is natural to a certain extent. But a single-headed Instrumentalism is clearly self-destructive. Studying math just for the purpose of passing the college entrance examination is clearly self-destructive in comparison to studying it because it is innately fascinating. Writing a novel to make money is less authentic than writing it out of some internal urge. The best answer to why I eat is "because it tastes good." not "because I have to keep alive." best answer to why I play tennis is "because I like it," not "because it keeps me healthy."

What we should do in creativity development, be it at home or in school, is to lead children and students to come to see the beauty and the fascination of the creative act itself, be it scientific research, playing a music or painting a picture. One of the basic characteristics of the creative mind is the depth of absorption into the act he is engaged in, often to the degree that he is totally oblivious of the surroundings and even of his own hunger. The exceptional depth of such absorbed involvement may well be the secret well-spring of creative ideas and thoughts. But the depth of such absorption can be attained only in proportion to the depth of the intrinsic delight, joy and fascination one feels in the creative act itself. The depth of absorption makes the unity of the subject and the object possible, the transcendental fusion of all dichotomize that one experiences in the creative act.

We may postulate what may be called an ecology of truth, borrowing the

ideas from analytic philosophy, that truth cannot be verified but can be approximated only by falsifying wrong. There are truths in the world. But a truth comes to us only wrapped by onion-like layers of fancies that look like truth. When someone with a calculating mind comes near to the truth coveting to make use of it, the truth induces him to take a layer of falsity as true. Driven by a practical motive, he hastily takes it as true. Only when someone with child-like naivety who loves the truth in itself looks for it, does the truth open the deeper layers to reveal itself, much like a lady who shuns a man with calculation but opens her heart to a man who loves her as herself.

We may also add that the creative mind loves spontaneity and autonomy more than any other people. You can be told to memorize a poem, but you can never be told to be creative. Creativity is a totally spontaneous affair. The creative mind spontaneously endures long hours, days and years of arduous work and training, in fact exceptionally longer than ordinary people. Without the intrinsic value, joy and fascination that one finds in the act itself, such an arduous career would be impossible.

Freezing vs. Unfreezing

Every form of learning involves a certain amount of fixations. A "freezing" But creativity requires "unfreezing," posing still another paradox. If you have learned to swing a golf club in a certain way, it is awfully difficult to swing it in a different way. If you have learned to follow a certain pattern of thinking, it is difficult to think in some other ways. If a rat has learned the way through a maze to reach food, he keeps going the same way for quite some time even if the food is not in that end any more. Out of many ways of response, learning fixes and freezes one that meets the end. Neurologically learning is said to involve establishing a certain neural path or a network, which means fixing a certain neural passage.

The creative act, on the other hand, requires "unfreezing," undoing some past learning because quite often what hinders and blocks such an act is what you have learned and "frozen" before that is now rendered impertinent to the present problem. The need for fluency, flexibility, free-wheeling, imagination, green light, brain storming, divergence-- all connote the same

need for "unfreezing."

Unfreezing involves nearly irrational or supra-rational attempts because what you have learned and frozen before represents what is rational. Dreams are superbly supra-rational. Dreams are not inhibited by the rational, realistic, logical rules. A story tells of an eminent chemist who had been searching for a particular formula for some time unsuccessfully but came upon the answer in the dream, for which he later received a Nobel Prize. Another story goes of Einstein.

When he was a boy, he had a dream in which he was flying in the sky gradually accelerating the speed of flight, and when his speed surpassed the speed of light, he saw the end of the light and the world suddenly disappeared— a premonition of his later special relativity theory. Yet another story relates to Jung. In his dream, he was in the living room. There was a door on the wall, which lies opened to find that it led to the dark basement full of archaic things littering the floor. Upon the floor he found another square lid, which he lifted open to find another darker and deeper basement cell, where he saw still more archaic ancient tools and medieval armour. In Jung's own account, this was the precursor of his theory of collective unconsciousness.

The dream-like quality of unfreezing and freewheelers of ideas can often be attained in the state of total relation and diversion, the let-go of mind without inhibition, especially after long arduous hours and days of concentration. Creative ideas do not come through reasoning. They pop up, dawn upon, and flash through all of a sudden when all inhibitions are lifted, moral, emotional, and logical inhibitions often act as the represents to creativity.

Further points to be made in this regard are that the working of the creative minds are nearly the same whether the act is intellectual, artistic, technical, practical or even athletic, that there are only very thin lines between them and that a divergent experience in one area can have a reinforcing effect on another area.

A note of caution might be in order here. It is that the creative act is not wholly a matter of freewheeling flare of mind. It has to have sufficient "stuff" with which to freewheel, which must be built up through a long

laborious work. It has to go through the stages of preparation, incubation, illumination and verification, as some scholar formulated. Sufficient "materiel" of high quality should be prepared, incubated and verified, for which long strenuous years of technical and professional training are invariably required. It is only the "illumination" stage we have discussed which relates to the flare of mind.

All this discussion puts us in a rather awkward position. Can we really educate, make children and students "learn" creativity if the crux of creativity is unfreezing, unlearning? Can we teach, as some people argue, a set of steps, procedures or rules that one could follow in order to be creative? Is it not, rather a very uncreative approach, just another freezing that would come to inhibit other patterns of creative thinking? Is it not much better to encourage children and students at times to be wildly imaginative, free-wheeling and divergent with a minimum degree of inhibition? "All work and no play makes Jack a dull boy" is a very cogent adage in this regard. How do we hit the right mix of convergent thinking and divergent relaxation and imagination? Can there be a workable form of creativity education? I mean here education of creative students, not just very smart students who excel in achievement tests.

School vs. Home

Can we really foster creativity among children and students in the school settings? If creativity is characteristically a spontaneous and autonomous process, would it not be true that the best the school could do for creative students is simply not to interfere in any way with them and just let them do what they like? This is a paradox if we think of the school as a place for accomplishing every-thing.

Besides, there is ample evidence from developmental studies of the talented that, almost without exception, the foundations of creative minds were formed very early in life long before schooling began. J. S. Mill learned to write in Latin at the age of four. Charles Darwin began collecting insects from his early childhood. Mozart began composing music at the age of four. Both McEnroe and Graf began learning tennis at the age of four... as if the age of four were an age of miracle.

I should set aside the knotty question of heredity vs. environment in this regard. But another outstanding fact is that, again almost without exception, the genius had a family member, notably the father or the mother, who was himself or herself highly, often professionally, interested and trained in the talent area concerned. Mill was "taught" by his father. Darwin literally followed the steps of his father's field trip. Mozart's father was a music teacher in secondary school. The fathers of McEnroe and Graf were themselves tennis players.

It is not exactly that they were "taught" by their fathers. Rather, they "identified" themselves with, nearly subconsciously imitated the acts of their fathers. To them, therefore, playing piano, for example, was not a special thing but just part of the facts of life, one of those daily chores like eating three meals a day with a pair of chopsticks, where they also imitated their fathers. What is crucial is not "early education" per se but the existence of an "early model" with whom children can readily identify, preferably with a family member.

In identifying with the model, they learn not only the basic skills but also the persistent motivation and life-style necessary in their pursuit. The strong spontaneous motivation to go through long years of strenuous training are thus formed during this early stage of identification. An over-zealous mother often misunderstands the point. Sending the child early to a piano teacher while mother herself has no interest nor the ability in playing piano has nothing to do with producing a talented pianist. To prompt the child to study sending him to a tutor will not produce a gifted child if mother and father spend all their time at home in front of the television. An outside piano teacher during early years of the child can not be the model of identification. To make a genius, either one of the parent has to be a half genius at least not necessarily because the child needs hereditary inheritance but because the child needs a model to identify with.

It is only upon the foundation of such early experiences that the rare talent can mature further provided that other favorable conditions continue to prevail. For example, a talented student of high school ages, needs on the average 6-8 daily hours of engagement in the activities of the talent field, whether it be in music or in science or in sport. He also needs a

"mentor" who personally trains, supervises and sets a professional model for him. The problem with the ordinary school settings is that the school is ill-fit to accommodate such conditions unless extraordinary measures are taken. Korean schools, in particular, which are preoccupied with oppressively big dosages of preparatory studies for college entrance examinations are especially unfit for creativity development. Schools as they are now rather constitute an effective "Killing field" of creativity.

Would it be the case that if we are really interested in promoting creativity in this country, we may have to divert our attention from schools to homes, and try to make a parent a half-genius and let him or her spend enough time with the child as the model person? This would amount, especially in the busy modern society, to asking parents for a very high sacrifice. But there seems to be no other royal road to producing creative minds. Where, then, do we have to turn our attention to for the development or creativity?

Creative Social Climate

When we come to realize a certain need for a change in the school, we have a tendency to think in terms of an additive reform, that is, simply to add another portion to the existing school program. Thus, for example, we add a subject in morality to boost morality, add a unit of environmental studies to promote such concern, and add a special unit in scientific thinking to a science course. Besides only adding to the curricular load, often such an additive reform does not work and, over time, regresses to the original normalcy. What is necessary, instead, is a thorough climatic regeneration of the total program itself.

The same is especially true if the school really intends to encourage and foster creativity among its students. A unit of learning on a special program for "creative thinking" will not be of very much help to them. Even revamping a science course or an art course incorporating "principles and procedures of creative thought" would not be of much service. For one thing, creativity, by its very definition, is not a matter of following steps, procedures, or prescriptions, as mentioned before. That would be much like teaching swimming by lecturing.

Ultimately, creativity is a matter of a climate or an atmosphere. It is the "atmosphere" of the home, the "organizational climate" of the school and the "social climate" of the society in general to which we have to turn our attention if we are really serious about creativity development. Though many characteristics of such climate for creativity have been alluded to in the foregoing discussion, a summary description would help highlight them.

First of all, diversity of views, ideas, interests, abilities, and backgrounds has to be not only tolerated but actively encouraged and rewarded. Where the overriding climate is one of conformity and different views and ideas are easily met with intolerance, ridicule and persecution of varying degrees, creativity has no room to bloom. Freedom of dissent in particular is the springboard of creativity. It does not necessarily mean freedom to act otherwise, like breaking a law, but basically freedom to think otherwise. It is the right to be curious, to doubt, to question and to have a different view.

One also needs a diversity of experiential opportunities, where one can find, test and actualize one's potentialities. In this regard, we can safely say that in schools it is not the curricular subjects but the extra-curricular activities that enliven creativity. To create in the conventional school a climate of diversity, of tolerance and of freedom of dissent is not an easy task.

A climate of individualized regards for the individual is a corollary of diversity tolerance. As mentioned before, creativity is essentially an assertion of individuality. Where everything goes in collectivistic regimentation and no regards are given to individual differences in abilities, interests, styles, learning and activities, there again is no chance for creative minds to be identified, no room to act and grow. Individualized instruction is always the ideal in education, but always remains mainly unrealized in practice. To the extent to which school experiences of students are occupied by the regimented learning and activities, creativity would be a rarity, even in the school intended only for the gifted.

Another corollary put in another way is that creativity needs a climate

of open system. If an institution, be it a school or a nation, is characterized by various forms of closedness, it shuns creativity. A school where students are of similar backgrounds and teachers come from the same alumni with the same "school" of thought excluding the interactions and intercourses with other views and thoughts prohibits occurrence of creative thoughts. A college department exclusively operating on its own without any interdisciplinary transactions with other academic departments lessens the probability of occurrence of creative ideas, for creativity demands crisscrossing of wildly different ideas. So does the nation with a strong chauvinistic compulsion. Ironically, a special school where only the elite and gifted students are exclusively enrolled amounts in itself to a kind of closed system.

Still another characteristic in the same vein is the climate of spontaneity, of freedom of both intellectual and emotional expression, of freedom from unnecessary inhibitory sanctions. If an institution has many prohibitory and inhibitory rules and codes which the students are forced to observe consciously and unconsciously, creativity fades and withers.

In short, creativity is not a procedural affair. It is a climatic and atmospheric affair. To put it in extreme terms, if a school or any other institution is really interested in creativity development, the thing to do is to forget about how creativity is formed and what programs and teaching methods are needed for creativity, but instead to create a atmosphere where diversity of things and thoughts are tolerated and encouraged, where there are individualized regards in curriculum, teaching and other activities, where the systems of operation are open rather than closed, and where uninhibited spontaneity of expression is tolerated, encouraged and even rewarded.

This in effect means, in case of the school, a total revamping and regeneration of the conventional school, almost like a revolution. Few schools would be courageous enough to attempt such a total regeneration. Administrators are not accustomed to such a school atmosphere. Neither are the students, nor the teachers. Some might even fear that such a change would nearly be a total breakdown of the school itself. Therefore, the school is nearly an impossible place for creativity development, and

creativity may have to be left with those rare parents and their homes for its haphazard occurrence.

My pessimistic remark is half intentional and is meant to be a challenge to those interested in school regeneration for creativity. So far as the school is concerned, what should matter is not an addition of special programs, classes or for the gifted, but the total revamping of the school. Simple grafting of a program upon a diseased and enfeebled tree trunk will not produce a tree of creativity. To begin with, the tree itself needs to be made healthy. As they now, stand, schools in Korea, and probably in other countries too, need a serious regeneration in many respects and for many reasons. An effective reform in the directions suggested would bring, among many other benefits, fertile soil and climate where creative minds can soar and flower.

These traits of a creative climate can also characterize the whole society as well as a school or a company. One can also easily infer that to the extent to which the whole society provides a fertile climate of diversity, tolerance, freedom of dissent, and autonomy, individual institutions in it would be able to provide more readily and easily the similar climate for creativity. How a society as a whole forms such a climate is clearly a matter of social culture and of political behavior.

If the culture carries a strong strand of closed chauvinism and if the political behavior spreads a climate of threat and fear, suppression and heterogamy with any pretext, creative minds would not prosper. Some rare creative minds have the tenacity to exert themselves even in the most unfavorable climate. But generally this is not the case. In frigid weather most creative minds would hopelessly and helplessly wither and perish. If we really want profuse emergence of creative talents, we have to first prepare the flower bed that is fit for them to grow and flower. And this, more than any thing else, is a matter of cultural regeneration and political reorientation. This means that in the development of creative minds the political leaders and social planners, those setters of social atmosphere, have to play the major roles, though there certainly are subsidiary roles the teachers of the school can play.