Creativity and What Blocks It

from *Science, Order, and Creativity*
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In the introduction, a call was made for a new surge of creativity in science. By now it will be clear that such a surge must extend into all areas of human activity if the actual challenge, which has finally revealed itself, is to be met. But does this mean that creativity must somehow be elicited from an organism that does not have in itself a natural potential for creativity? It is proposed that, on the contrary, human beings do indeed have such a potential. However as children grow older, this creativity appears to be blocked.

Some insight into the nature of this block can be gained from the work of Desmond Morris, published in *The Biology of Art*. In one experiment chimpanzees were given canvas and paint and immediately began to apply themselves to make balanced patterns of color, somewhat reminicent of certain forms of modern art, such as abstract expressionism. The significant point about this experiment is that the animals became so interested in painting and it absorbed them so completely that they had comparatively little interest left for food, sex, or the other activities that normally hold them strongly. Additional experiments showed somewhat similar results for other primates. When very young children are given paints, their behavior is remarkably like that of the chimpanzees.

> This seems to indicate that creativity is a natural potential. Yet somehow, in most cases, the urge to create fades as the human being gets older. Or at best it continues in certain limited areas, such as science, music, or painting. Why should this happen?

An extension of Morris's experiment involved rewarding the chimpanzees for producing their paintings. Very soon their work began to degenerate until they produced the bare minimum that would satisfy the experimenter. A similar behavior can be observed in young children as they become "self-conscious" of the kind of painting the believe they are "supposed" to do. This is generally indicated to them by subtle and implicit rewards, such as praise and approval, and by the need to conform to what other children around them are doing. **Thus creativity appears to be incompatible with external and internal rewards or punishments.** The reason is clear. In order to do something for a reward, the whole order of the activity, and the energy required for it, are determined by arbitrary requirements that are extraneous to the creative activity itself. This activity turns into something mechanical and repetitious, or else it mechanically seeks change for its own sake. The state of intense passion and vibrant tension that goes with creative perception in the way discussed in Chapter 1 then dies away. The whole thing becomes boring and uniteresting, so that the kind of energy needed for creative perception and action is lacking. As a result, even greater rewards, or punishments, are needed to keep the activity going.

Basically, the setting and goals and patterns of behavior, which are imposed mechanically or externally, and without understanding, produces a rigid structure in consciousness that blocks the free play of thought and the free movement of awareness and attention that are necessary for creativity to act. But this does not mean that rules and external orders are incompatible with creativity, or that a truly creative person must live in an arbitrary fashion. To write a sonnet or a fugue, to compose an abstract painting, or to discover some new theorem in mathematics requires that creativity should operate within the context of a particular artistic or mathematical form. Cézanne's particular creativity in art, for example, was directed toward the

discovery of new forms and orders of composition within the context of a particular form of freedom that had been previously established by the Impressionists. Some of Bach's greatest works are similarly created within the confines of strict counterpoint. To live in a creative way requires extreme and sensitive perception of the orders and structures of relationship to individuals, society, and nature. In such cases, creativity may flower. It is only when creativity is made subservient to external goals, which are implied by the seeking of rewards, that the whole activity begins to wither and degenerate.

Whenever this creativity is impeded, the ultimate result is not simply the absence of creativity, but an actual positive presence of destructiveness, as was suggested in Chapter 5. In the case of the painting experiment, this shows up as a false attitude. Both the chimpanzee and the child are engaged in an activity that no longer has meaning in itself, merely in order to experience a pleasant and satisfying state of consciousness, in the form of reward or the avoidance of punishment. This introduces something that is fundamentally false in the generative order of consciousness itself. For example, the continuation of this approach would eventually lead the child to seek pleasing words of praise from others, even if they are not true, and to collude with others in exchanging flattering remarks that lead to mutual satisfaction. This, however, is achieved at the expense of self-deception that can, in the long run, be quite dangerous.

What is even of greater danger to the child, in such an approach, is that it eventually brings about violence of various kinds. For creativity is a prime need of a human being and its denial brings about a pervasive state of dissatisfaction and boredom. This leads to intense frustration that is conducive to a search for exciting "outlets," which can readily involve a degree of force that is destructive. This sort of frustration is indeed a major cause of violence. However, what is even more destructive than such overt violence is that the senses, intellect, and emotions of the child gradually become deadened and the child loses the capacity for free movement of awareness, attention, and thought. In effect, the destructive energy that has been aroused in the mind has been turned against the whole creative potential itself.

> Most education does in fact make use, in explicit or in more hidden and subtle ways, of rewards and punishments as key motivating factors. For example, the whole philosophy of behavior modification and positive reinforcement, which is particularly prevalent in North American education, holds that a system of rewards is essential for effective learning. This alone is a tremendous barrier to creativity.

In addition, education has traditionally given great value to fixed knowledge and techniques. In this way it places an extremely great importance on authority as determining the very generative order of the psyche. What is involved is not only the authority of the teacher as a source of knowledge that is never to be questioned, but even more, the general authority of knowledge itself, as a source of truth that should never be doubted. This leads to a fundamental loss of self-confidence, to a blockage of free movement and a corresponding dissipation of energy, deep in the generative order of the whole of consciousness. Later on, all of this may show up as a disposition to be afraid of inquiring into fundamental questions, and to look to experts and "geniuses" whenever any difficulty or basic problem is encountered.

Of course, a certain reasonable kind of authority is needed to maintain necessary order in the classroom. And the student has to realize that, in broad areas, the teacher has valuable knowledge that can be conveyed in an appropriate way. But what is important is the overall *attitude* to this knowledge. Does it seek to impose itself arbitrarily and mechanically deep within the

generative order of the mind, or does it allow itself to be discussed and questioned, with a view to making understanding possible? Similar questions can be raised with regard to conformity to arbitrary norms, which come not only from the teacher, but even more from the peer group and from society at large.

Beyond school, society operates in much the same way, for it is based largely on routine work that is motivated by various kinds of fear and by arbitrary pressures to conform as well as by the hope for rewards. Moreover, society generally regards this as necessary and valuable and, in turn, treats creativity as irrelevant for the most part, except in those special cases, such as science and the arts, in which it is rewarded. In fact, no society has thus far managed to organize itself in a complex way without using a system of rewards and punishments as a major inducement to bring about cooperation. It is generally felt that if society tried to do without these, whether in the family, in the classroom, at work, or in broader contexts, it would incur the risk of eventual total disruption and chaos. Creativity is nevertheless a major need of each human being and the blockage of this creativity eventually threatens civilization with ultimate destruction.

> **Humanity is therefore faced with an urgent challenge of unparalleled magnitude.** Specifically, rigidity in the generative order, to which control through rewards and punishments makes a major contribution, prevents the free play of thought and the free movement of awareness and attention. This leads to false play which ultimately brings about a pervasive destructiveness while at the same time blocking natural creativity of human beings.

A proper response to this challenge requires the kind of overall creativity in society that is implicit in the call being made in this book for a general creative surge in all areas of life. Clearly from this it would follow that the various forms of rigidity that have already been discussed would all change fundamentally. But such a change cannot be restricted to a single overall flash of insight. Creativity has to be *sustained*. For example, in Chapter 4 it was shown how the artist has to work constantly from the creative source in the generative order. An artist does not have a creative vision and *then* apply it mechanically, in a sequential process by means of rules, techniques, and formulae. Rather, these latter flow out of the sustained creative vision in a creative way.

> **To pay serious attention to this need for sustained creativity is extremely relevant for bringing about a creative change in culture and society.** In most cases, however, creative new discoveries are generally followed by an attempt to reduce them to something that can be applied mechanically. While mechanical application is necessary for certain contexts, the basic impetus for each individual must come from the creative origin, and this is beyond any mechanical, explicate, or sequential order of succession.

It is possible to point to specific areas in which a creative change would be of great benefit to society and the individual. For example, by means of a tremendous creative common action, education must no longer depend on rewards and punishments, no matter how subtle these may be. It must also cease to place an excessively high value on arbitrary authority, fixed knowledge, and techniques and conformity. Some partial and preliminary work in this direction has been done from time to time. For example, there has been an effort to present the child with a great deal of

meaningful material to arouse interest, so that the child does not have to be offered a reward to learn. Also, some people working in this field have emphasized free play as a way of arousing creativity. Others have given much attention to relationships that avoid unnecessary authority and conformity. By the further development of such approaches, it should in principle be possible for children to learn without the inducement of rewards.

However, there are deeper difficulties, which prevent these approaches from actually working in the long run. The problem does not stem primarily from the field of education alone. Rather, it arises ultimately out of the tacit infrastructure of the entire consciousness of humanity. This is deeply and pervasively conditioned, for example, by general tradition that takes the absolute necessity of rewards and punishments for granted. Both teachers and students are caught up in subtler forms of the same false structure that they are explicitely trying to avoid. This may, in the long run, be at least as destructive as was the original pattern that the whole experiment in education was designed to avoid.

> It seems that the whole conditioning of all who take part must in fact change: **society**, the **family**, and the **individual**. It is thus clear that there is no *single* stationary point at which these problem might be attacked. The educational system, society, and the individual are all intimately involved. **But it is ultimately the overall order of human consciousness that has to be addressed.**

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