

Materials for the topic “Theory of creative personality development (TCPD).

From the review by G.S. Altshuller “TRIZ-88”

TRIZ provides for an entry to the solution, which is close to ideal, however, creative process is not reduced only to search for solution. It is necessary to bring the found idea to the level of a workable and manufactural structure, to bring it closer to final embodiment, to attain its widest possible implementation. And then to take up the solving of a new problem. It is known from practice that the average time of implementation of an average-level invention constitutes 7-10 years. This is a long period in the life of a human being. Struggle for implementation is often associated great personal losses, with colossal expense of effort and time, misunderstanding of other people, necessity for pushing the idea forward. An innovator sometimes experiences material losses and alienation from his team. It is much easier to live without creativity, to be like "all the rest", not to "fantasize"... How to make a human being leave his “swamp of everyday life”, to ignore obvious difficulties and to start fighting a battle with stagnation and conservatism?

General calls and slogans don't work here. It is necessary to assiduously, step by step, prepare a human being to approaching creative battles, to possible temporary defeats and unavoidable difficulties. The person, who knows what dangers are in store for him in following his road, will be able to map the most reasonable route...

Developing a complex of creative features is the main goal of life strategy of a creative personality (LSCP). The method for creating LSCP is useful for all research in the field of TRIZ: analysis of large information arrays (for the purpose of identifying general regularities). More than one thousand biographies of creative personalities have been studied.

It was possible to trace the formation and evolution of a creative personality during the entire life. Using historical biographies, it was proved that creative style of life is accessible for everyone, for this purpose one does not need any inherent capacities or super-beneficial conditions. Every person can select a dignified goal and to start regular struggle for attaining it.

Considering the way to the goal, LSCP offers the human being a summarized life experience of generations of creative personalities: it warns about typical dangers, recommends particular methods for overcoming them and predicts the strongest steps.

Systematic research on LSCP gradually form a new field of knowledge – theory of development of creative personality (TDCP).

Qualities of creative personality (QCP).

- 1. Dignified Goal.** Presence of new or non-attained significant socially useful goal (or a system of goals).
- 2. Resultativeness.** Correspondence of attained results (or correspondence of their scale) to the goal, which is set.
- 3. Work capacity (workability).** Presence of a program (or a package of programs) for attaining a set goal and controlling the performance of these programs.

4. Capacity to solve problems. Mastering the technique for solving problems, which are encountered on the way to the goal.

5. Ability “to hold up”. Capacity to defend one’s ideas, to bear social non-recognition, inapprehension of selected road.

6. Communicability.

Creativity levels

	Known problem	New problem
Known solution	I (socially recognized activity, Sergey Korolyov)	II (Gleb Kotelnickov – parachute brake)
New solution	II (Zander)	III (Tsiolkovsky)

DIGNIFIED GOAL AND ITS DEVELOPMENT.

(a short review)

"The most important parameter of creative life is a Dignified Goal. What is it? Here are some basic criteria of a Dignified Goal:

1. NOVELTY. The goal should be new. It can also be old, however, in this case the means for attaining it should be new.

2. SOCIAL USEFULNESS. Dignified Goal is positive, kind and directed at development of life.

3. SPECIFICITY. Not the general good intentions, but a particular set of problems, solving of which could begin even tomorrow.

4. SIGNIFICANCE. Maybe, one could word it in a more daring form: Dignified Goal should be great, while its attainment is paid for by great labor and sometimes by human life.

5. HETERODOXY. Dignified Goal is ahead of its time, therefore, it is often perceived as a heresy, as something implausible, non-realizable. It is really sometimes unattainable, especially in its initial wording.

6. PRACTICALITY. Motion towards the set Goal should yield particular results all the time. The most unattainable Goal could bring real use. Alchemists, trying to find the method for converting non-precious metals into gold, discovered the secret of obtaining porcelain. The followers of phlogistic theory – Scheele, Cavendish and Priestly – obtained chlorine, hydrogen and oxygen...

7. INDEPENDENCE. Large teams are needed, when the Goal is partly attained and stopped to be a heresy. At first the work is conducted by lonely enthusiasts or small groups. Therefore, the attainment of a Goal (at least at a first approximation) as a rule is available to single researchers and does not require complicated and expensive equipment, which is "affordable" only to large teams".

(G.S. Altshuller, I.M. Vyortkin. "How to become a Heretic", in the collection of articles of the same title, Karelia publishers, 1991, p. 15).

EXAMPLES of Dignified Goals: to prove that the people are able to survive in the open ocean and, in doing so, to save the life of shipwrecked people (A. Bombard); to conquer space for the sake of improving the life of people (K. Tsiolkovsky); to create a spaceship for flying to Mars (F. Zander); to combine two kinds of art – painting and music (Čiurlionis), to find the ruins of ancient Troy (Heinrich Schliemann).

The initial impetus for forming a Dignified Goal, as a rule, appears because of a special vivid impression, extraordinary event or an unusual phenomenon (ENCOUNTER WITH A MIRACLE).

For example, when Heinrich Schliemann was a child, his father presented him with "The World history for children" with full-color pictures of the siege of Troy – the vivid image of Troy remained with him during his whole life. Once, when Alain Bombard was on duty at the hospital, a number of corpses was brought there after a shipwreck – all of them died in lifeboats because of the fear of perishing, not because of starvation or absence of water.

Constant creative potential of CP is supported by the variation of goals from particular and narrow to universal (THE CONCEPT OF MAXIMUM UPWARD MOTION, See: How to become a Heretic, p. 169). For example, K. Tsiolkowsky changes three layers of goals during his life:

_____ The 3rd layer of Goals (problems of civilization – cosmic phase of mankind existence)

_____ The 2nd layer of Goals (general problem of science and technology – rocket space travel)

_____ The 1st layer of Goals (particular technical or art system - rocket)

_____ (Information gathering. No goal)

Certain topics, which can be converted into a Dignified Goal, could be found, for example, in a collection of problems on Life strategy of creative personality ("How to become a Heretic", p. 161). Basic universal problems are also quoted in the article by G.S. Altshuller and M.S. Rubin "Eight Thoughts on Nature and Technology" (in the collection of articles "Chance for an Adventure", Karelia publishers, 1992).

M.S. Rubin, 1997.

From the work by I.M. Vyortkin “TO STRUGGLE AND TO SEARCH”

NAUFRAGE VOLONTAIRE (VOLUNTARY SHIPWRECK).

At the turn of 1950-ies French doctor Alain Bombard set forth the hypothesis that shipwrecked people, who found themselves on water in boats or other saving appliances, do not die due to thirst or starvation, but because of their fear of inevitability of such death. His proof was: 90 per cent of people, who find themselves under such conditions, die during first three days, when one cannot even imagine death from hunger or absence of water. In his book Bombard quotes the example of Titanic wreck. The ships reached the place of the catastrophe rather quickly, in three hours, however, by this time there were many corpses and people, who went mad, among those, who had rescued.

The hypothesis set forth by Bombard was revolutionary. At that time it was thought that a human being, who appeared to be face-to-face with the ocean, can survive no longer than 10 days. Saving facilities could remain usable for the same number of days. And therefore a ten days period was announced to be the limit period for the search for victims of sea catastrophes. Bombard ventured to prove that in the ocean one could live for a much longer period eating only what is found in the sea water. And even on the raft one can sail, selecting the direction instead of being moved by the force of wind, flows and waves. His hypothesis crossed out the ten days limit of search and – what was the most important thing – gave faith in saving to those who were shipwrecked. "It was necessary to return the hope to those unhappy people, – wrote Bombard. – It alone could save thousands of people annually and thousands of widows would not cry after their death. Because of that it was worthy to risk one life". The people who faced the ocean, but who knew that another man survived in a similar situation, would have will for struggling, which means an additional chance of survival.

Bombard started scientific research and found out that sea water, fish and plankton contain all nutritious substances necessary for the human being. But one thing is to set forth a hypothesis and even to offer its indirect support and another thing is to perform an actual experiment. The model of the catastrophe – that is what was necessary for Bombard for his life-size tests. And he made quite a risky step – he acted a shipwrecked person (his book bears the title: "A voluntary Shipwreck"). Bombard crossed the Mediterranean Sea with his friend. And then he alone (!) – when his friend (a professional sailor) abandoned him – crossed the Atlantic Ocean. Bombard called his raft “The Heretic”. In reality, the idea of the expedition through the ocean on an inflated raft carried out by a non-professional sailor, actually without water and food, without any connections with the shore, was heretic from the beginning to end. The professional sailors considered the raft to be uncontrollable, according to their forecasts, it had to overturn after encountering the first wave and Bombard himself (even if the raft did not overturn) – was to die from starvation, hunger, heat and thirst. Because: a) one can’t drink sea water (everyone knows that!), b) it is impossible to fish in the Atlantic (and everyone knows that!). Bombard, in his turn, asserted, that one cannot only survive, but also to reach the targeted port (imagine that it was said by a person, who started to learn the basics of navigation using the manual, already staying on the raft, in the ocean!).

Taking the greatest risk, Bombard did it for the sake of saving the life of many people: according to statistics of 1950-ies 200 thousand people perished annually during peaceful time in the seas and oceans, out of which 50 thousands – practically because of fear of death from thirst and hunger. The direct reason of his scientific research and later of his expedition was the horrible scene of

death of 43 people who were shipwrecked near the shores of France (they were brought to the hospital, where Bombard then worked).

Bombard crossed the ocean and came exactly to the targeted port. He survived drinking sea water as well as fresh water, which he managed to collect), fishing, performing physiological research and constantly conducting a diary, in which he reflected his self-observations. He survived in spite of the logic and predictions of specialists.

The voyage of Bombard lasted for 65 days. Of course it bore little resemblance to an excursion in an air-conditioned first-class cabin on a comfortable ocean liner. During his voyage Bombard lost 25 kilograms of weight, he developed an anemia, his body got covered with lesion and ulcers, he lost nails on his toes and his eyesight deteriorated badly.

But he proved that a human being can survive in the ocean!

When Bombard reached the shore, the witnesses stated that the reserve stock of food, which was on his small raft, remained intact. What valor must one have in order not to touch the saving source of life, staying on the verge of death from starvation!

At bottom, Bombard risked his life for the sake of saving thousand of people, who are absolutely unknown to him, but who could find themselves under similar circumstances. However, he never considered his action to be something supernatural: "Under no circumstances is it possible... to consider my voyage as a heroic deed, as something exceptional". It is a usual work worthy of a human being...