

Communication in Creative Process of Art Communities

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Abstract

Purpose: This research is aimed at an enquiry into whether it is possible in an analysis of an artistic creative process to use a model, major components (sub-processes) of which include a problem statement, emotional arousal, generating, objectification and evaluating. **Methods/Analysis:** The research methodological framework includes a communicative approach. It involves comprehension of creative sub-processes using a communication analysis that takes place in a team, members of which are engaged in solving an intellectually demanding task. The evidence-based framework for the paper included the data gathered with a method of a semi-structured interview in time of field research. Their object included four art communities that in an urban environment (e.g. Moscow, Saint Petersburg) had brought together more than thirty artists, working in various genres of the contemporary art. **Results:** The findings presented in the paper describe the sub-processes of objectification and emotional arousal in an individual and team creative work of artists, as well as understanding a role performed by communication in each process performance. **Novelty/Improvements:** Firstly, the research novelty lies in the model of the creative process used for the artwork analysis; the model was elaborated in the field of invention. Second, it lies in a description of the relationship between communication and creativity in the artwork of the artists clustered into art communities. Third, it lies in the identified “material” form of objectification in the artistic creative process.

Keywords: Art Communities, Creative Process, Communication, Team’s Role Structure

1. Introduction

Researchers have been interested in a mystery of the creative process for more than one century. Despite significant advances in this field of research, dissatisfaction with the available findings has not only made the researchers be in a constant search for new concepts of the creative process, but also revise papers, fundamental in this area of expertise, such as Wallace’s the Art of Thought (1926), containing a model that had become a starting point for hundreds of research projects¹. This is largely due to the fact, considered “the biggest obstacle” in creativity research, namely the fact that “creative cognition is not directly observable”².

The research line able to overcome this obstacle, was explicitly emphasised by Hyatt, who in his paper argues

that the clearer relationship between communication and creativity is promising in research of the latter, “Like creativity, communication may be explained as an intrapersonal phenomenon, but communication also occurred externally, as an interpersonal process, so it can be observed and described”³.

An implicit connection between creativity and communication is recognized by many researchers⁴⁻⁷ etc. Today, in the information age, in terms of a narrow focus on knowledge and skills, innovation production requires more and more intense communicative interactions at different stages of the creative process⁸. It has not only become increasingly clear at a level of organizational creativity^{9,10}, in science and business¹¹, but also in the most cultural industries, including so-called “peripheral”¹² ones (Note 1), which include visual arts.

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In this regard, the researchers has given more and more support to the field of research, where the creative process is not explored through an investigation of cognitive processes, but in an aspect of group interaction and communication¹³. Thus, in their flagship paper on promising research of collective creativity, Kurtzberg and Amabile argue that, “To take creativity research to the next level, researchers must now accept the challenge of dissecting team-level creativity and understanding the components of creativity as they occur with multiple individuals”¹⁴.

In this paper, using the model, elements of which have been identified in an analysis of the role structure of an art community, we will explore a value of communication in creative processes executed in contemporary art by the artists clustered into art communities. Doing so, we are going to show a potential of the communicative approach in understanding a nature of the creative process, as well as “pilot” the proposed model applied to the analysis of the creative process in visual arts. A selection of the communities, members of which are the artists, as an object of the research, in particular, depended on the fact that the ideas of visual arts were to the most extent in line with the individualistic myth of the creativity nature, “More than any other creative domain, we imagine the painter working in isolation, without influence from the external environment and without concern for convention”¹⁵.

2. Methodology

Since the first decade of the twentieth century, scientists have been actively exploring the creative process and its constituents. Despite dozens of elaborated models¹⁶⁻¹⁸, the experts have mainly agreed with the model by Wallace (in its various versions). According to it, the creative process includes the stages of preparation, incubation, insight, and verification^{15,19}. This four-stage model has been empirically confirmed, but its discreteness and one-pointedness have been repeatedly criticized²⁰.

Researches from recent decades have persuasively shown that the classic 4-stage model should be revised or at least amended. Among the relatively recent achievements, the component model by Amabile¹⁰ is worth mentioning. Its author as components of the creative process identifies 1. Task presentation, 2. Preparation (gathering information and resources), 3. Idea generation (seeking and producing potential responses), 4. Idea validation and 5. Outcome assessment. He also says of

external (environmental) and internal (subjective) factors (intrinsic motivation, domain-relevant skills and creativity-relevant processes) that influence combinations and an order for these components to be used. Compared with the model by Wallace¹, in the Amabile's model, the incubation unconscious process and its final moment of inspiration (insight) are “taken out of the brackets”, and replaced by a process of idea generating, which combines activities of the conscious and the unconscious.

In the past two decades, many researchers have either revised the staged models for the creative process towards a greater focus on sub-processes, or offered new models as systems, that organize necessary sub-processes. However, there is no agreement among the experts on the question, to which creative sub-processes they should pay attention and to which principles they should adhere when they identify such the sub-processes¹⁹. Some creativity experts have restricted themselves to two sub-processes²⁰, others say of a need in considering more than a dozen of them¹⁷.

We suppose that we might go further in a search for a solution to this issue with an analytical assumption that the creative process executed either individually or together, is always in a loose sense collective, as it is inextricably linked to social communication and actually impossible without it. There is an important consequence from this assumption: identification and systematization of the creative sub-processes (components of the creative process) should be made with communicative logic, i.e. with an analysis of communication that takes place in a team, members of which solve a creative task.

An idea of a deep relationship between creativity and communication has been supported more and more by those, who believe that really original and valuable ideas appear in long-term activities, in which real or imagined communication with other people plays a crucial role⁷.

In its most developed form, an idea of socio-cultural rootedness of creativity was presented in the system model by Csikszentmihalyi^{22,23}. He does not consider creativity a sort of mental activity that takes place in mind of the talented people, producing extraordinary and wonderful ideas from their point of view. An activity, executed individually, to produce a new and important product might be only implicitly called creativity, as without communication, which results in the product recognised as a creative one (i.e., original and meaningful), the creative process cannot be considered complete. Therefore, “therefore, creativity does not happen inside people's

heads, but in the interaction between a person's thoughts and a socio-cultural context. It is systematic rather than an individual phenomenon"²³.

The system model assumes that creativity as an ability to make significant changes to human culture and can be observed in the interaction between three components: 1. A certain area of the culture itself or a domain, 2. A community of experts in the domain, or afield, and 3. The person himself/herself in a role of a creator. Creativity only appears when something, made or invented by someone using symbols and rules from a domain, is recognized as new and valuable by representatives of a relevant field.

We think that the system model by Csikszentmihalyi actually transforms social communication into a necessary condition for the successfully implemented creative process. It assumes that with no direct or indirect interaction between the content of a particular field of human culture and its representatives - either to explore the domain itself, or to get recognition from the domain representatives - an individual creative effort cannot be successful, that is, it will not be able to result in a truly creative product.

Taking into account all the above-mentioned, to identify the components of the creative process, we propose to rely on a role of a team of inventors (Note 2), identified by Gadzhiev²⁴. According to his concept, main roles assigned to participants of a creative team are the task prospector, the activator, the originator, the resonator and the critic.

A core of the creative team consists of three persons: the originator, who produces new ideas, the resonator, who in a dialogue with the originator clarifies his/her ideas and the activator, who summons other participants to be engaged in the creative search. Of course, in the real life of a team, these roles may move from one person to another, depending on who of them wants to share his/her idea with the others.

At an entrance to this creative triangle, there is the task prospector, i.e. a participant, who articulates questions and problems to be solved. At an exit, there is the critic, who evaluates proposed solutions. Roles of both the task prospector and the critic may be also performed by those participants, who have other roles in the team core.

As far as in each specific case these roles can go from one member of the creative team to another, and the creative team itself might only consist of two people, from our standpoint, it is much more reasonable to say about

separate components (sub-processes) in the creative process out of touch with specific roles within the team.

Thus, the components of the creative process that meet the respective and above-mentioned roles in the team, to our mind, are: 1. Problem statement; 2. Emotional arousal; 3. Generating; 4. Objectification; 5. Evaluation. These sub-processes have been identified in accordance with the logic of deployment and running of the creative process within a team, work of which is observable in contrast to interior creative work of an individual.

We would like to emphasize that in art practice, these components or sub-processes are not engaged according to a linear pattern, but sometimes almost simultaneously and with various sequences and combinations. To emphasize this, we deliberately avoid saying of stages or phases.

We might assure ourselves that in comparison with the model by Amabile¹⁰, first, this model takes a preparation process out of the brackets as a precondition and a prerequisite for any successful creative process. Second, in the discussed model, there are two significantly new elements, not available, as far as we know, in other models. There are emotional arousal and objectification. The first of them allows taking into account the energy component, essential for creativity, or an inspiration degree of the creator. Researchers say of a particular state of creativity stress and build-up of an internal mental stress, emotions, and an inspiration, necessary to launch the creative process²⁵. A measure of intensity in experiencing these summoning emotions was actually referred to by Collins with the phrase of the emotional energy that "charges up individuals like an electric battery, giving them a corresponding degree of enthusiasm towards ritually created symbolic goals"²⁶, and converted by them into the creative activity.

The objectification process, which is usually executed in a dialogue, but which, as we will show below, can be also executed individually, means making a newly generated idea clear. At the same time, the focus is not made on its interpretation or development, but the most adequate way to present it. An importance of the objectification act is that the new idea is often expressed at time when it is being generated in quite an imperfect form²⁴, polluted with various language manipulations²⁷.

The most models of the creative process claim to contain universal understanding of the creativity mechanisms. Nevertheless, it is necessary to take into account an ongoing discussion of specificity and similarity of

creative skills and behaviours¹⁹. We certainly appreciate a value and take into account the findings of those few papers that directly deal with the creative process in visual arts²⁸. Specificity of our research is that, unlike Getzels and Csikszentmihalyi²⁹ and Furst et al.²¹, it is not longitudinal, despite the fact that a limited number of art communities was its research focus for a long time. In addition, unlike Cawelti et al.³⁰, we did not want to establish a specific model of the artistic creative process based on descriptions of the artists themselves. We were moving in an opposite direction, trying to check theory discussions with the empirical data. Finally, unlike Mace and Ward³¹, we did not want to trace the creative process of the artists from the beginning of their work upon an individual art object up to its completion. Our goal was the better understanding of a role played by the mentioned sub-processes in the creative activity of the artists, and a role of communication in each process implementation.

Let us articulate the hypotheses of this research. The first of them is an assumption that within the creative process, executed by the artists, either individually, or together, there are sub-processes of emotional arousal and objectification. Herewith, the hypothesis does not deal with other constituents within the model, i.e. problem statement, generating and evaluation. This is due, first, to a limited scope of the paper; second, this is because these sub-processes are relatively conventional, i.e. recognized by the most researchers of creativity.

A need in a test for the hypothesis also depends on the fact that these sub-processes have been identified based on the role structure of the inventors' team, while artistic creativity has a number of significant differences from the invention activities (mechanic creativity) and the scientific work. It does not focus on verbal and logical, but on image thinking. Its product does not include new knowledge, mechanisms or designs that meet applied needs. It includes artistic images enclosed in a material object (which often pretends to be considered an artwork).

The second hypothesis is actually an assumption that social communication does not only play a significant role in collective, but also individual creativity of the artists as part of the objectification and emotional arousal sub-processes. It is worth saying again that according to our initial assumption, communication has been also included in other components of the creative process model that is in question herewith. However, discussions that refer to a test of the hypothesis concerning the sub-processes of problem statement, generating and evaluating, have been

omitted in view of the fact that it is impossible to include them in the scope of this paper.

3. Materials and Data

The empirical basis for this research includes findings of field research from 2011 to 2015, with art communities from Saint Petersburg as a research object. They bring together the artists working with formats of contemporary art. According to the strategy of multiple variative case studies³², four art communities had been chosen ("The Parasite" ("Parazit"), "The Unconquered 17" ("Nepokoryonnye 17"), "The Kitchen" ("Kukhnya"), "What has to be done?" ("Chto delat?")). They are different by their composition and structure, their integration reason, specifics of participants' artwork and a form of their spatial fixedness.

The main team of "The Parazit" community at the time of the research included eight artists, male and female, aged 27-58. About ten artists made a periphery of the community. The community has a long art history and is described with high social heterogeneity among the participants (age, career success, public recognition, etc.). It largely determined an internal structure of the community, in which there were clear smaller creative teams and groups of friends.

"The Unconquered 17" community at the time of the research included seven artists aged 27-38 as permanent members, among them, there were three men and four women. The community named after an address of a studio where the members worked, has a network structure with a stable nucleus consisting of the founders and the old-timers of the community with the volatile periphery. The young, but often quite successful artists in "The Unconquered 17", shared pragmatic interests related to promotion of their artworks, at least, friendly relationship.

"The Kitchen" youth art group at the time of the research brought together six members (male, aged 25-32). With one exception, they all had similar educational and socio-cultural background. Like "The Unconquered 17", the artists from "The Kitchen" have a shared workspace, but in their case, it looked like a single shop, where workstations were rather conventionally identified. This encouraged mutual commenting and tip sharing.

The "What has to be done?" platform is probably the most well-known in Russia, especially among commu-

nities of artists, philosophers and scientists abroad. It is described with a focus on synthetic arts, as well as a clear left inclination. At the time of the research, the community included ten people aged up to 48, among them; there were seven men and threewomen. In its history, this community was splitted between two cities, Saint Petersburg and Moscow. This made it impossible to localize the group activities at one specific physical environment.

To collect the empirical data, many field research tools were used. At the same time, this paper is mainly based on materials obtained with a method of a semi-structured interview. To complete this paper, we have reviewed results from 37 interviews with representatives of the above-mentioned art communities. Some artists were interviewed twice. Each interview took from one hour to two and a half, was recorded with a digital recorder, and then professionally transcribed.

In the interviews, the members from the art communities were invited to answer several thematic clusters of questions: 1. A creative biography and reasons for joining an art community; 2. An origin and development of an art community; 3. An idea of the contemporary art essence and an attitude towards it; 4. Work and creative processes; 5. Relationship and communication with other members of a community; 6. Items and tools used by the artists to work at a studio; 7. Joint creative projects.

This paper is mainly based on the interview findings from 5, 6 and 7 clusters.

4. Results

4.1 Emotional Arousal

Many respondents mentioned a great importance of emotional and energy encouraging for the creative process. This topic was especially clearly seen in narratives of the members from “The Unconquered 17” art community. An emotional background of interaction in this community is smooth, without conflicts, quiet (to some extent, even too calm). Some members of this community (Note 3) say that they severely lack an energy to work, “A condition is usually slack” (N2); they complain that inspirational communication events are rare: “...There are the whole days, when there is nobody here... And there can just be simple “hi – hi” and that is all. In such cases, as if I missed something” (N3).

In an interview with participants of this particular community, there was a subject of throes of composition

that can be seen as a sign of a lack in an emotional energy level, “Well, it [the creative process] on the contrary exhausts me, and produces, yes, takes my forces away in general. Yes, you give back there ... the more energy you save in the life, not wasting it out there to people or something else, the more you are able for a kind of sublimation for this energy into work ...” (N2).

One of “The Unconquered” founders confesses that the community has recently lost its enthusiasm, typical for the first years of its history. An effect of novelty went out, and we can say that the life of the studio has become more structured, but routine, “Today there is much more order, but there is certainly less inner energy” (N5). In its first years, the community has collegial management. At that time, many artists wanted to socialize more with each other and learn about others’ projects. In the recent years, the elements of spontaneous self-organization have opened a way to an institutionalized structure of relationship. In the community, there are leaders, who make decisions; there is a supervisor, in charge of all the organizational matters of exhibitions and joint activities. All the other members in the art community have been engaged in private projects, and they have been mainly left to themselves.

It should be mentioned herewith that decreased enthusiasm in the creative activity clearly correlates with a decrease in communication intensity between members of the art community. This relationship is explained with the fact that, according to Collins²⁶, the most important source of the emotional energy is an interaction in time of so-called interactive ritual, in which the participants, being in a shared physical environment, focus on the same object or the same action (being aware of the shared focus) and share the same mood or emotion²⁶. Examples of such kind of interactions are meetings between the members of art communities, where they discuss both technical and organizational issues, and lines for development in contemporary art.

In addition to the interactive ritual, for emotional arousal the representatives of art communities use a method of immersion into stress in its two versions at least. They might be conventionally referred to as conflict and situational.

An example of emotional arousal driven by a stress situation can be “The Temporary Art” project, executed in the framework of “The Museum Night” city action by “The Kitchen” art community. In this action, encouragement was made with a narrow period of time to complete

the work, when the artists were expected to finish pictures following news pieces in an hour and a half or two. Completed pictures had to be almost immediately placed on the web with a title of a corresponding news piece. The additional noise was made by the audience, participating in “The Museum Night” action; the audience had come to look at the “hyper relevant art”.

Another version of emotional arousal is a conflict style of interactions between participants, which is particularly evident in the course of the collective creative process. Such style has proved to be quite inherent as a style of communication in “What has to be done?” art community platform, especially in its creative core because of both personal characteristics, and differences in a professional background. An identity of each artist shows a desire to assert an own author’s vision to the end and runs into a similar desire from other authors. Such conflicts contribute into emotional outbursts and keep members of the community in a desired tonus (intellectual as well). Apparently, the community members are themselves aware of positive aspects from such a conflict form of interactions, which makes it impossible for them to relax and it forms a benchmark for the authors in their artwork, “We have a conflict communication style, but I madly like it as when you work in a compromise mode, it is very hard to be responsible for a result ...sometimes, scandals happen. We do not patronize each other; it is very important. You treat your friend very seriously and understand that (s)he is able to go to such achievements” (CHD1).

4.2 Objectification

Our research has showed that in artwork, the idea objectification does not often happen in a communicative form, described by Gadzhiev²⁴, but in a form of attempts to implement them in an outline or a sketch. This type of the objectification is called by us the material objectification, where an artist uses his/her professional skills in an attempt to embody an idea generated by imagination. The sketch is an object, with which an author can understand an essence of a solution found clearer. A quality of realization of an idea largely depends on a developed level of technical skills, necessary for the field of art, with which an artist deals.

In its turn, a quality of the communicative objectification depends on a degree of understanding between partners. Verbalized feelings from the performance might be a brilliant example of this process. Such ver-

balization was made by members of “What has to be done?” art community, while they were working on “The Russian Forest” performance. A respondent’s statements and those of other members of the community at joint meetings became an important source to clarify ideas put forward by the actual authors of the play, “... But she was interested in listening to my questions; I have all the same the body speaking. That is my questions were interesting for her, questions, suggestions, some puzzles ... some pronunciations, images. Then she writes again, we start pronouncing again. ...But she needs an environment. So, we understand that she is an author, while we are a nutrient environment, a sort of broth, which helps to articulate everything in some new form” (CHD3).

The nutrient environment²⁴, mentioned by the respondent, is a common communicative and semantic space created by members of the art community, where a new thrown-in idea as a seed starts growing, i.e. being integrated into an available system of shared ideas. Speaking the Gadzhiev’s language, we can say that the art community as a whole acts as a collective resonator, helping an author-originator to formalize and explain ideas, i.e. objectify them, “... This is an alternative for yourself, as an artist is always on his/her own ...And things that you consider your own doubts and fixations, in a team, they are easier to be solved. This is an effect of demonstration” (P5).

From a stand point of the objectification for emerging ideas, perhaps, the most favourable environment is a space created in “The Parazit” art community, where according to respondents, there was a non-judgmental atmosphere, the atmosphere of acceptance and freedom, “Well, it’s that everyone decides by themselves. If someone puts some jiggery pokery, no one will object. Because, actually, if someone starts evaluating, then it will be the utter rubbish” (P1). A chance to feel yourself in psychological safety within the community is an essential circumstance that contributes into intensification of a communicative exchange in the objectification process of generated images.

As an experience of the community members shows, the process of communicative objectification, among the other things, implies that talkers are able to open to each another, not being afraid of the fact that the understanding of another person or his/her understanding of yourself is able to change yourself. In other words, the more developed a skill of the communicative objectification is in talkers, the greater chance there is that they will

start a dialogue, in which its participants do not so much experience giving their opinions, as are able to respond to another talker's statement, explain, develop and catch a line of his/her thoughts.

Even among the participants of the same art community, opportunities for a confidential interaction are anyway limited, contributing into an appearance of creative micro teams. One respondent says that in such creative alliances (usually dyads), people become a sort of Psychiatrists for each other (P5). A person actually takes up this role if (s)he listens to another person and shows much feeling, to some extent reducing his/her throes of composition. The process of idea objectification is largely based on such relationship between the creative people. Clarifying, detailing, rewording the things said allow partners in a dialogue learning boundaries of their own ideas and at the same time finding logical links that connect their inner worlds. That is what another respondent says about this delicate process of creative interaction, "I am sure that D. and I have different ways of thinking. This results in a more or less complex range, when we work ... I hear D's words, analyse them and think, I do not understand why that is so ... I like, I am ready to accept one or another, another way of thinking, I think that this person might be right or this person deserves respect, there is another point of view, and I think many things develop from this" (P6).

5. Discussion

The completed analysis of narratives from the semi-structured interviews with members of the art communities shows that the first hypothesis has been generally verified. In the creative process of an artist, there is undoubtedly a significant line of actions, procedures and practices, which are difficult to be attributed to such widely recognized components within the creative process, as the problem statement, generating and evaluating, related to emotional and energetic mobilization and objectification of emerging ideas. Despite specificity of art, these components are quite clearly fixed in the individual and collective creative processes of the artists, though they receive some specific features compared to their manifestations in invention.

The second hypothesis of the research has been partially verified. Two discussed sub-processes manifest themselves in both their obvious relationship with com-

munication, and without it. In the paper, we make an important contribution into the concept of the objectification, proposed by Ponomarev and Gadzhiev^{25,33}. The objectification, about which they used to write, and which we call communicative, is hampered in such areas of creativity, as painting, drawing or sculpture, because of their non-verbal nature. In them, an artist does not often think with words, but speaks a language of images, including lines, shapes, colours and shades. Besides, respondents said that, as a rule, they did not need anyone's interference in work. For these reasons, we refer to that objectification produced by the artists, making pectoral sketches, as the material objectification. Its function is similar to the function of communicative objectification, i.e. making a meaning of generated ideas clearer and making a search for the best way to express them. Herewith, the communicative objectification prevails in the collective creative process, while work on an individual creative project might be carried out with the help of the communicative and material objectification of ideas. The communicative objectification as part of the individual creative process mostly occurs in an interpersonal dialogue between the artists, caused by a need in trust-based self-discovery.

Emotional arousal has turned out to appear in both communicative and non-communicative forms. On the one hand, an efficient way to improve a level of emotional charge (motivation, emotion), necessary to launch and implement both an individual and collective creative process of the artists, is, as we have identified, their conflicting interactions and interactive rituals implemented in a form of group discussions on group projects, as well as communication in dyadson individual creative products and work on them. On the other hand, the artists say that they may improve their emotional tonus with different, non-communicative ways, for example by putting themselves under time pressure.

6. Conclusion

In the course of the research, we have identified some limitations when among interview narratives we were defining actualization signs of individual components within the creative process. They mainly relate to the fact that, firstly, in the real creative process, performed by the artists, several sub-processes often occur almost simultaneously or extremely quickly following each other. Second, a non-verbal nature of the most part of

the explored creative activity of art communities' members sometimes makes it difficult to record individual sub-processes and their separation from each other. For example, using narratives of the respondents, it is not always possible to separate clearly material objectification from problem statement and generating, as all three sub-processes are often implemented in a form of manipulation with tools and materials, while an artist himself/herself is not always clearly aware of which of the creative sub-processes (s)he deploys.

Prospects for our further research might refer to a description of specific forms of communication between members of art communities, which they use in time of actualization of any component within the creative process. It might be said in advance that the most in-demand sorts of such "creative" communication are an internal dialogue, communication in dyads, group discussions and communication with the help of objects d'art.

In conclusion, we would like to refer to a statement by reputable expert in cultural economics D. Throsby. He writes that today "some types of cultural production only exist in a form of a collective activity, [and] an analysis of an artist's work is equally applicable to the creative work made by cultural workers acting as a group"³⁴. The research, as we think, shows that a reverse statement is fair: an analysis of a creative team activity (art community in this case) is applicable to work of an individual artist. Moreover, in our view, this approach allows going further in understanding of a nature and mechanisms of the creative process as such.

7. Acknowledgments

The authors give their sincere gratitude to project leaders and participants, without them, this paper would not have been completed. They are N.G. Basov (leader of projects), A. Khokhlova (project manager), A. Nenko, H. Tykanova, M. Weitz, O. Volkova, D. Palagnyuk, A. Evstifeev, A. Copiy, I. Shirobokova, A.V. Tsareva, D. Palagnyuk, A. Golovneva, I. Kretser, L. Chernysheva, E. Yelnitskiy, N. Vasilieva.

8. Financial Information

The empiric data used in this research were collected under the projects supported by: grant given by Saint Petersburg State University, project 10.23.476.2011

"Communicative Practices to Generate Knowledge in Social Space of Modern City"; grant given by President of the Russian Federation to young candidates of science, project 10.11.599.2014 "Art Community in City Space: Mechanisms to Generate Knowledge (in Terms of Modern Art)". The Russian Humanitarian Science Foundation, project 15-03-00722 "Co-evolution of Communication Knowledge Networks: Structural Dynamics of Creative Teams in European Capitals", supported theoretical and methodological aspects of the research.

Notes

Note 1. According to Hesmondhalgh, "peripheral cultural industries are first and foremost preoccupied with text production. At the same time, characters in them are reproduced with semi-industrial or even nonindustrial ways" 12.

Note 2. Better-known models of team roles, such as the Belbin's model 35, and several others have been based on an analysis of a multidimensional process in organizational management, which makes them irrelevant to the subject of this research.

Note 3. List of informants: N1, artist, "The Unconquered 17", male, 1981; N2, artist, "The Unconquered 17", female, 1973; N3, sculptor, "The Unconquered 17", male, 1982; N4, artist, "The Unconquered 17", male, 1981; P1, artist, "The Parazit", male, 1980; P5, artist, "The Parazit", male, 1960; P6, artist, "The Parazit", male, 1982; CHD1, artist, "What has to be done?", female, 1968; CHD2, artist, "What has to be done?", male, 1964; CHD3, choreographer, "What has to be done?", female, 1968.

9. References

1. Sadler-Smith E. Wallas four-stage model of the creative process: More than, meets the eye? *Creativity Research Journal*. 2015; 27(4):342–52.
2. Stuhlfaut MW, Vanden Bergh BG. Creativity is ... A metaphoric model of the creative thought process. *Journal of Marketing Communications*. 2014; 20(6):383-96.
3. Hyatt KS. Creativity through intrapersonal communication dialog. *The Journal of Creative Behavior*. 1992; 26(1):65-71.
4. Negus K, Pickering M. *Creativity: Communication and cultural values*. Kharkov: Institute of Humanities; 2011.
5. Goldberg C. The interpersonal aim of creative endeavor. *The Journal of Creative Behavior*. 1986; 20(1):35-48.
6. Isaksen SG, Treffinger DJ. *Creative problem solving: The basic course*. Buffalo, NY: Bearly Limited; 1985.

7. Sales A, Fournier M. Knowledge, communication and creativity. SAGE Publications; 2007.
8. Tella A, Adu EO. Information Communication Technology (ICT) and curriculum development: The challenges for education for sustainable development. *Indian Journal of Science and Technology*. 2009 Mar; 2(3):1-5.
9. Woodman RW, Sawyer JE, Griffin RW. Toward a theory of organizational creativity. *Academy of Management Review*. 1993 Apr 1; 18(2):293-321.
10. Amabile TM. A model of creativity and innovation in organizations. *Research in Organizational Behavior*. 1988; 10:123-67.
11. Paulus PB, Nijstad BA. Group creativity: An introduction. In: Paulus PB, Nijstad BA, editors. *Group creativity: Innovation through collaboration*. Oxford; 2003. p. 2.
12. Hesmondhalgh D. *The Cultural Industries*. 2nd ed. London: Sage; 2007.
13. Do KH, You YY, Jung JT. The effects of emotion and communication on job involvement. *Indian Journal of Science and Technology*. 2015 Mar; 8(S5):1-8.
14. Kurtzberg TR, Amabile TM. From Guilford to creative synergy: Opening the black box of team-level creativity. *Creativity Research Journal*. 2001; 13(3-4):285-94.
15. Sawyer RK. *Explaining creativity: The science of human innovation*. New York: Oxford University Press; 2006.
16. Busse TV, Mansfield RS. Theories of the creative process: A review and a perspective. *The Journal of Creative Behavior*. 1980; 14(2):91-132.
17. Mumford MD, Mobley MI, Uhlman CE, Reiter-Palmon R, Doares LM. Process analytic models of creative capacities. *Creative Research Journal*. 1991; 4(2):91-122.
18. Lubart T. Models of the creative process: Past, present and future. *Creativity Research Journal*. 2001; 13(3-4):295-308.
19. Lubart T, Mouchiroud C, Tordjam S, Zenasni F. *Psychologie de la Creativite*. Paris: Armand Colin; 2003.
20. Eindhoven JE, Vinacke WE. Creative processes in painting. *Journal of General Psychology*. 1952; 47(2):139-64.
21. Furst G, Ghisletta P, Lubart T. The creative process in visual art: A longitudinal multivariate study. *Creativity Journal Research*. 2012; 24(4):283-95.
22. Csikszentmihalyi M. Society, culture, and person: A systems view of creativity. In: Sternberg RJ, editor. *The nature of creativity: Contemporary psychological perspectives*. New York: Cambridge University Press; 1988. p. 362-85.
23. Csikszentmihalyi M. *Creativity: Flow and the psychology of discovery and innovation*. New York: Harper Collins Publishers; 1996.
24. Gadzhiev Ch M. Psychological mechanism for group (collective) to solve creative task. *Research of group creativity issues*. Moscow: Science; 1983. p. 266-79.
25. Kitaev-Smyk LA. Factors of creative process intensity. *Questions of Psychology*. 2007; 3:69-82.
26. Collins R. *The Sociology of Philosophies*. Cambridge, Mass.: Harvard University Press; 1998.
27. Peat FD. David Bohm 1917–1992. In: Runco MA, Pritsker SR, editors. *Encyclopaedia of Creativity*. New York: Academic Press; 2011. p. 159-64.
28. Agyemang I. Packaging design course teaching improvement: A case study in the faculty of applied arts, Egypt. *Indian Journal of Science and Technology*. 2010 Oct; 3(10):1-5.
29. Getzels JW, Csikszentmihalyi M. The creative vision: A longitudinal study of problem finding in art. New York: Wiley; 1976.
30. Cawelti S, Rappaport A, Wood B. Modeling artistic creativity: An empirical study. *Journal of Creative Behavior*. 1992; 26(2):83-94.
31. Mace MA, Ward T. Modeling the creative process: A grounded theory analysis of creativity in the domain of art making. *Creativity Research Journal*. 2002; 14(2):179-92.
32. Yin RK. *Case study research: Design and methods*. Thousand Oaks: Sage Publications; 2009.
33. Ponomarev Ya A, Gadzhiev Ch M. Communication patterns in creative team. *Questions of Psychology*. 1986; 6:77-86.
34. Throsby D. *Economics and culture*. Moscow: Higher School of Economics Publishing House; 2013.
35. Belbin RM. *Types of roles in teams of managers*. Moscow: HIPPO; 2003.