

Understanding Creadox through the Semiotics of Cooperative Transactions

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ABSTRACT

In an environment of unpredictability, organizations envision the future of society to guide their decision-making and actions. Within this framework, they employ creativity applied to future studies to address the lack of certainty on a long-term time horizon. During the divergence intentionally a very high quantity of ideas is produced, in this creative process where the future is expected to be different than the present. And even if breakthrough ideas and originality are fully expected at the end in the main deliverable, it happens that novelty tends to disappear further after the convergence.

This risk of losing originality is an issue that can be compared to the "creadox", a neologism that refers to a rich divergence phase which, paradoxically, barely leads original ideas at the conclusion of the convergence phase. This problem is at the interplay between practice and research. And, this paper explores this phenomenon by the means of the Semiotics of Cooperative Transactions theoretical framework, which includes concepts for analysing in detail creativity sessions dedicated to envisioning the future. We focus on transactions characterized by the transformation of ideas into concepts and then into valuable deliverables. We examine how ideas are materialized in the documents produced during the creative process, and we illustrate it through a case study involving unpredictable issues and future societal evolutions.

We conclude with the territorialization of the original ideas, that includes the way they are materialized into artefacts and documents all along the creative sessions, a dimension to explore in further research to avoid the "creadox", to better address the challenge of maintaining originality in the creative process when envisioning the future.

Keywords: Creadox, Creativity, Transaction, Future, Divergence, Convergence

1 Introduction

Creativity appears as an answer to anticipate uncertainties when organizations envision the future of society, particularly as they steer their decisions and actions by considering a diversity of potential breakthroughs and a spectrum of trends. Various factors may influence their operations, and they closely monitor trends in several domains such as technological, and environmental dimensions.

They employ creative techniques applied to future studies that includes uncertainty at the level of long-term societal evolutions. This enables them to explore diverse potential outcomes and identify contrasted future scenarios. In the end a too consensual result would be seen as unrealistic because the future is expected to include novelty. We tend to understand in this context the "creadox" phenomenon.

First, we will describe the context of unpredictability and the role of creativity and the importance to avoid "creadox". Then we explore the Semiotics of Cooperative Transactions theory (Zacklad, 2020) that enables us to address this research object. After we will develop our methodology and then finally, we explain our main results.



2 A Context of Unpredictability

Envisioning the future requires imagination and creativity to encompass radical changes in both technological and societal aspects. Moreover, as crises are inherently difficult to anticipate, predicting their consequences on organizational activities becomes an even greater challenge. For instance, the pandemic had a profound impact on mobility behaviors and work habits that wasn't expected. Organizations are now reevaluating their future activities in the face of this unpredictability, aiming to inform present decisions while considering the potential radical shifts in society. In this context, mega-trends (such as the digitalization and informatization of society) are intertwined with unexpected events like breakthroughs (such as a cyber-attack). These elements are extremely difficult to anticipate. Nevertheless, it is valuable for an organization to be prepared to adapt and sustain their activities when confronted with such unforeseen circumstances.

Future and foresight workshops explore several and different plausible futures to orientate better significant decisions that affect the action in the present. It corresponds to the notion of “prospective” (Berger, 1964) that was introduced by the French philosopher Gaston Berger. And using creativity to anticipate rising uncertainties appears as a methodological tool in these workshops. Creativity helps facing uncertainty for both organizations and individuals because it allows them to come up with new ideas and solutions to problems.

Organizations are anticipating uncertainties when developing a technology that will be used in a future society. The first data, ideas, or concepts can completely change on a long-term time horizon, such as 10 years in the technology sector. And in the end of a workshop dedicated to the future in order to anticipate action, there is a strong expectation for originality, considering in foresight that the future will be different (Berger, 1964). For that reason, we consider that this application of creativity is interesting to study the “creadox” (Byttebier *et al.*, 2007) phenomenon where originality generated during the divergence step tend to disappear further in the creative process during the convergence step. In this context, from the methodological perspective avoiding “creadox” where the result is barely original even if it happens after a rich divergence stage, is crucial.

If creativity facilitators anticipate the possibility to avoid it, researchers can provide a theoretical analysis in a complementary perspective. This phenomenon is a problem at the interplay between practice and theory. As a consequence, it requires a theoretical framework that can articulate both dimensions such as the “Semiotics of Cooperative Transactions” theory (Zacklad, 2020).

3 Theoretical Lightning

Manuel Zacklad developed the Semiotics of Cooperative Transactions, a theoretical framework grounded in the pragmatism of John Dewey, utilizing two key concepts from the American philosopher: experience and transaction (Zacklad, 2020). The concept of cooperative transactions is of great interest for analyzing both collective situations such as creativity workshops and its application to future studies, involving the future socio-technical evolutions. More specifically, in creativity workshops, participants are stimulated to generate numerous ideas through various interactions and conversations that correspond to a transaction—an abstract structure that encourages cooperation (Zacklad, 2020). We specifically focus on the conversations or interactions that exert a notable influence on the creativity workshop. For example, if a facilitator responds to a participant who needs clarification regarding an assignment, it can generate discussions and interactions to clarify what is expected from the group of participants without modifying the creative process. But if on the contrary, an important element has emerged, the discussion can lead to a change in the workshop, and it can influence the creative process.

We model creativity workshops using the concept of cooperative transactions. The output of the workshop is considered as a performance; in our case study, it is the final deliverable elaborated after the workshop to consolidate the results, corresponding to a creation. Its development is the result of the actions of agents (participants and facilitators), leveraging personal and collective resources. Ideas materialize in mediator artefacts (Zacklad, 2020). For instance, a conversation discussing ideas in a remote workshop is a language artefact, while writing them down on a collective board is a tangible one. During the creative session, both the mediator artefacts and the ideas materialized undergo transformation (Zacklad, 2020). In these workshops, we encounter capacitor artefacts as well serving instrumental function (Zacklad, 2020), such as the facilitation guide used by facilitators to prepare the steps of the creativity workshops.

Territorialization, is a component of the transactional performance. It aims for a future arrangement to establish a sustainable and enjoyable environment which will shape activities and be constantly reshaped by them, and it encompasses the documentation of the ideas, concepts, and mediator artefacts along the creative process. Therefore, we consider this concept of interest to study the “creadox” phenomenon.

At the level of creativity methods, there is a transformation of the ideas, concepts and mediator artefacts between the divergence and the convergence, and some ideas and concepts will not be sustained until the end. This selection is not an elimination. However, it can lead to a loss of originality. There is a risk that familiar ideas, concept, or mediator artefacts are chosen instead of the more original ones. It coincides with the situation coined as “creadox” (Byttebier *et al.*, 2007). “Creadox” is a neologism created by the contraction of creativity and paradox. It is a paradoxical phenomenon because originality is at the core of creativity and creativity technics are aimed at elaborating original solutions to problems faced by organizations. Authors are advocating for the introduction of a clustering phase between divergence and convergence to avoid it (Tassoul *et al.*, 2007). Applied to future studies, figure 1 illustrates the risk during convergence, to evaluate ideas related to the future, with categories established in the past.

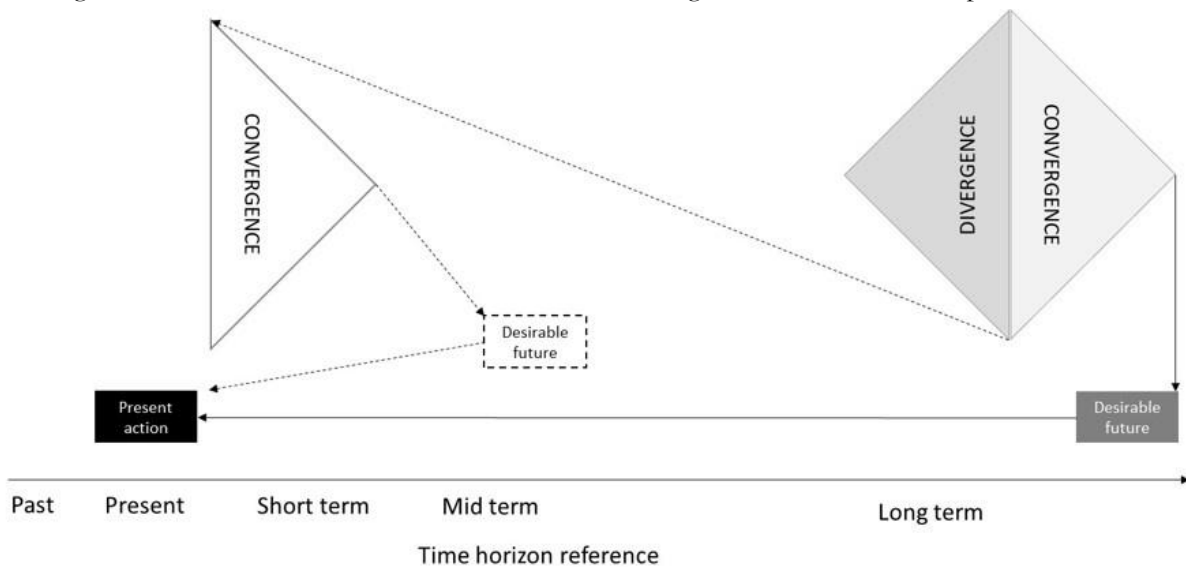


Figure 1: Convergence risk in creativity applied to future studies

The creativity session is composed of subtransactions that are intermediary steps. These intermediary transactions can be independent with the main transaction (Zacklad, 2020), and analyzed independently because they have their proper objectives and performance criteria's. For example, in the evaluation of divergence the quantity of idea is a criteria according to the principle that “quantity brings quality” (Osborn, 1953). Creativity methods are based on the “power of association” (Osborn, 1953) and Guy Aznar details several “associationism mechanics”, to break down into steps the various types of association involving

language, images, and ideas: semantic, subjective, phonetic, by contrary, metaphor, breaking words (Aznar, 2005). Each type can be considered as a subtransactions and be analyzed independently to better understand the significant modification of ideas and artefacts at a specific stage of the creativity workshop.

In the context of the Semiotics of Cooperative Transactions, "the reference to semiotics concerns both the language of the researcher and the practitioners." (Zacklad, 2020). It enables us to address in our research object the "creadox", a problem coined by partitioners to understand it with a scientific perspective.

4 Methodology

This research paper is related to larger research conducted in the context of a doctoral thesis. Here we focus on a specific part of the data collected where we tend to approach the "creadox" phenomenon. We illustrate these transformations through a case study involving issues related to the orientation of technological decisions in relation with long term society evolutions.

We participated in workshops during several sessions and projects taking place in various organizations in which we primarily considered that it would be a difficulty to observe a phenomenon that was at the opposite of the desirable results in creativity. As a participant we could gather data observing the documents that were produced at each stage of the creativity workshops. We also included the experience of other participants and facilitators by using a dedicated interview technic developed by Pierre Vermersch and called the explicitation interview (Vermersch, 2019). This technic is aimed at guiding the interviewee to verbalize the activity and provides detailed descriptions.

During the interview, interviewees are reliving a specific singular moment that happened during a creativity session. The questions of the interviewer are not defined in advance, but are adapted to the description given by the interviewee in order to guide him to provide a very detailed description of an action that took place during a workshop. We have selected the explicitation interview because we wanted to gather data on the ongoing action, which seemed at the beginning very difficult to achieve in creativity workshops due to the multiplication of interactions among several participants encouraged by facilitators, who tend to stimulate these interactions and conversations. Thanks to this approach we were able to have an overview of the creativity approach because we fully participated, and we had the possibility to gather in detail the documents that were given or produced, during the workshop.

Our purpose in this research is to obtain significant data related to the subtransactions that structure the creative workshops including aspects that are invisible at the level of the observation. For example, a silent mental action to select ideas or concepts is both invisible from the perspective of facilitators and other participants and can be easily forgotten by the participant after the workshop. Thanks' to Vermersch's interview technic, the data collection is situated at the level of the creativity in action from the perspective of the participants. Then we analyzed these data's putting them into the context of the workshop using our experience as a participant, and we questioned how the important moments structure the creative process. The interviewer avoids questions regarding "the reason why?" but usually asks the question "How?". For example, the interviewer can ask to the interviewee to describe precisely "how he proceeds to select some concepts?". This data collection methodology is consistent with a pragmatist approach because it investigates the know-how (Dewey, 1922) associated to a lived experience referring to a creativity situation and make a clear distinction with an opinion about a creativity workshop in general.

We were able to make the relation with the documents and data gathered during the observation as a participant in order to have a larger view of the situation in with the action take place to then conduct the analyze with the mean of the Semiotics of Cooperative Transactions (Zacklad, 2020), that offers a theoretical framework to interpretate the transformation of the ideas and mediatory artefacts that are emerging during the workshops or that are revealed through the research study protocol.

5 Results Analyzes

This research is based on a workshop held online through an application that enable to share the vocal conversation and the documents. The fact that the interactions were entirely online may lead to several biases. As both a participant and an observer we noticed that it was difficult to understand if the connected participants were active during the session because some of them remained silent while their names were indicated as connected in the virtual meeting. Considering that the “creadox” refers to a lack of originality that appeared upstream and disappeared later, therefore we consider the necessity to interview participants that had a significant and observable presence.

During the upstream stage, we noticed that the interactions between participants were mainly done orally. The facilitators and the project team were taking detailed notes and were registering the session to provide an intermediary feedback to participants. Consequently, participants were not able to contemplate the result of upstream stage before the convergence stage that took place online through a dedicated application. During the introduction of the vote assignment, providing the voting criteria, we observed that some participants asked to include other propositions that were missing in the list indicating that they corresponded to ideas, concepts and artefacts that had to be considered. This is coherent with the fact that the main transaction brings a tangible deliverable, and it is not always the case for a subtransaction (Zacklad, 2020). In this case the lack of tangible intermediary deliverable can be interpreted as a lack of territorialization of concepts and artefacts.

After the session we gathered two descriptions of moments were participants indicated that they decided to remain silent. One refers to the fact that she preferred to stay silent after a negative remark she received during another future workshop on another subject. Another one described a moment of hesitation in relation with the fact that a dimension was overrepresented among the items to vote. From our observation, we considered that these participants were enough active to be proposed an interview. However, as the workshop was held online, it can represent a potential bias since we only interviewed active participant during the session. We could have excluded participants who remained silent but were listening, or didn't dare to react, taking into account that the “creadox” is not desirable for both participants and facilitators. As participant of the workshops, we observed a quite important reference to categories during the convergence stage. It resonates with some recommendations to avoid categorizing in the convergence phase (Tassoul & Buijs, 2007). The participant was a bit frustrated but decided to remain silent after a moment of hesitation. A third participant reported in the interview that he found a lack of novelty in the items proposed to vote. This interview invites us to consider the risk of lack of originality not only during the convergence but at the beginning of it. Here it seems that it is not only the convergence process that leads to a lack of originality, but that it was at the level of the items proposed. This can represent a bias because the result of the divergence as it is presented to participants is involved in the lack of originality. Reactions observed during the workshops and interviews both mentioned a lack of novelty at the beginning of the convergence. As a participant we noticed a few documentations at the upstream stage and from the perspective of a participant we hadn't the possibility to go back in the process and reconsider an idea, we neither had the possibility to visualize the quantity of ideas produced. It is a possible bias of the fact that the workshop was held online. For the voting, participants had access to items without having a complete overview of the intermediary steps. We noticed that there is a lack of documentation of the ideas, the conversation, the interactions in the upstream steps such as divergence. By lack of documentation, we also consider the fact that it is difficult to go back into the time of the workshop to look back to the content of the upstream phase. This can be seen as a lack of territorialization, including the fact that there is no document of subtransactions that are important at the level of the creative process.

6 Conclusion

Our perspective in this research was to take the time to come back to the creative production in a collective creativity context, to analyze in detail what leads to its result. After explaining into details, the context of uncertainty where creativity is central, we described the Semiotics of Cooperative Transactions, a theoretical framework that permit to address problems that are at the interplay between academic research and the professional literature. We described the potential biases due to the conditions of the data collection, and we exposed the main results in our research that concludes to a lack of territorialization of the ideas during the intermediary steps, and in particularly the divergence of the creative process leading to a lack of originality at the beginning of the convergence. This result is a first step that encourages further research about the creadox phenomenon, paying attention to the concept of territorialization and the documentation of the transformation of the creation along the creative process.

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