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**ENTREPRENEUR'S TRINITY AND ITS MANIFESTATION
UNDER CONDITIONS OF COGNITIVE CAPITALISM**

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Abstract

The major function of an entrepreneur gradually commences to be cooperation of owners of unique mental capabilities and creation of sustainable ensembles of the latter instead of a conventional combination of physical resources. Entrepreneur's mental capabilities are simultaneously an intrinsic part of these ensembles and an external force in relation to them. Ascending of entrepreneurial subjectivity as compared to the entrepreneur's status and role as the other two integrants of the triune image of this actor becomes the most salient feature of cognitive capitalism. This paper is intended to determine the source of activity of entrepreneurial subjectivity in intellect-based enterprises. The study is based on the concept of sense-making by K. Weik and the radical subjectivist Austrian economic theory. The authors identify the source of activity of entrepreneurial subjectivity as an ontological oscillation at the level of an abstract individual and as an “interpretive loop” effect – at the level of interactions within the enterprise. Team entrepreneurship is suggested as a way out of the “interpretive loop”.

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Keywords: Entrepreneurial subjectivity, sense-making, ontological oscillation, opportunity discovery, interpretative loop, team entrepreneurship.

1. Introduction

Contemporary discourse of hi-tech entrepreneurship is focused on business sustainability and growth conditions in the new socio-economic environment. Its sources of creativity have extended beyond the



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concept of competition, therefore they have to be replaced with a broader concept of cooperation (Gnyawali, & Park, 2009), which is the main feature of innovation business ecosystems (Moore, 2013).

The new entrepreneurial subjectivity produced by this environment is found on the periphery of the discourse. As a result, despite the importance of environmental factors, a successful business is still associated with unique business schemes, long-term inimitable “company secrets”, and creation of inaccessible to competitors niches within econocenoses.

“Sustainable competitive advantages” (SCA) (Srivastava et al., 2008; Peteraf, 1993), specific synergetic resources of highly profitable innovation business are referred to in the strategic management theories as VRIN, (Kozlenkova, Samaha, & Palmatier, 2014; Barney, & Clark, 2007). “Unique selling proposition” or USP for short (Trout, 2008). is only a small portion of characteristics that came into the use in successful companies and entrepreneurs standing up for them.

In contrast to the business-stories of the industrial past, the dauntless entrepreneurs who created great businesses through their personal knowledge, hard work and inventiveness, and later were often crushed by the waves of imitators attracted by their success. Modern business-stories favor those who leave little chance for free use of the ready-made business model. A considerable amount of information about how these heroes run their companies and how their businesses work is intended to convince that only the personality of the founder and his unique team solely became the reason for success.

Apparently, it appears to be critical to gain an insight into what embodies the so called spirit of entrepreneurship, that is to say, a collection of social conditions and distinguishing personal features of people, which ensure the creation of VRIN-resources, SCA and USP. In other words, it is referred to a new mode of subjectivity (Szeman, 2015).

This paper seeks to clarify the features of the entrepreneurial subjectivity formation in highly intellectual creative environment. We have limited the scope of our study to the following questions:

1. What are the distinguishing features of social qualities of an entrepreneur acting within the highly intellectual environment of innovation business organizations?
2. What is the source of entrepreneurial activity in the context of knowledge economics and cognitive capitalism?
3. How do the interactions in the framework of innovation business organizations affect the mode of entrepreneurship?

2. Background and methodological base

The ordinary representation mentioned above corresponds to a long-standing research tradition in which Personal Traits of entrepreneurs are crucial to the business success (Gasse, 1982; Smilor, 1997). The approach based on Personal Traits assumed psychological traits that constitute the role of an entrepreneur. Such research program was greatly promoted by the work of McClelland (1961), “The Achieving Society”. He received a widespread support in the ordinary knowledge and popular literature. However, Fillion (1997) notes that this approach gradually exhausted itself, and he never found the personal traits that characterize entrepreneurs alone. Nevertheless, its impact has not vanished. At another level, the Personal Traits approach identifies the entrepreneur through his function in the overall economy

or within the operation of enterprise. So, J. Schumpeter (1994) endowed the entrepreneur's subjectivity with features of an equilibrium disturber, an agent of creative destruction.

According to this Schumpeterian tradition, the modern entrepreneurship theory starts developing on the notions denoting the subjective characteristics of creative reality transformation processes such as judgment (Foss, & Klein, 2007), alertness (Foss, & Klein, 2010), imagination (Shackle, 1979), effectuation (Sarasvathy, 2001).

What these concepts have in common is lack of attention to the mechanisms of formation of entrepreneurial identity. Entrepreneur is seen as an external prerequisite for economic dynamics. The natural result here is a perception of the entrepreneur as "an economic person in general" or an «economic superman» ("cognitive superman") (Foss, & Garzarelli, 2006). Understanding the processes of the emergence and reproduction of entrepreneurial subjectivity and diversity of successful entrepreneurial identities is contributed by the concepts formulated within the environmental approach. The Hannan-Freeman model examines the differentiation of organizations based on the degree of the resource use that members of the population collectively utilize (Hannan, & Freeman, 1977). This gives grounds to refer this concept to theories that assume homogeneity of resources. Accordingly, the intra-population identities of organizations along with the intra-role entrepreneurial identities are seen as able to fully characterize them in relation to the resource being utilized.

DiMaggio and Powell's approach appears to be more attractive in terms of determining the entrepreneurial identity within diverse resources utilization. In the framework of the institutional methodology, it is possible to consider that resources are carriers of certain social forces, while the phenomenon of institutional isomorphism can be seen as equivalence (isomorphism) of the organization's traits (which also covers entrepreneurs) to specific forces, within the field of which entrepreneurs and organizations use these forces to conduct their activities (DiMaggio, & Powell, 1983).

In this case, entrepreneur's subjectivity is formed by means of social characteristics of the resources being utilized. DiMaggio and Powell (1983) defined the mechanisms of coercive, normative and mimetic isomorphisms. In accordance with the concept of institutional isomorphism and the principle of population selection elaborated by Hannan-Freeman, the entrepreneur's subjectivity is reduced to his ability to adapt to environmental conditions. Therefore, environmentalism (both institutional and population) does not provide an instrument to determine the source of entrepreneur's individual creative effort, his intentionality, his devotion, that is, his Self. However, it considers the factors that determine the characteristics of subjective traits of entrepreneurs that operate in various environments.

Enclaves of creativity and innovation such as technology and innovation zones, currently being established in Russia, must envisage the presence of continuous processes within their highly intellectual environment that generate and support entrepreneurial subjectivity. Without a well-thought out theory, this initiative might reduce to noncritical borrowings of ready-made recipes of a yet another Silicon Valley (Hwang, & Horowitz, 2012).

For the purpose of this paper, we employ the theory of pillars and carriers of institutes (Scott, 2008), Weick's conception of enactment and sense-making (Weick, 1988; 1995; Maitlis, & Christianson, 2014), and Austrian Economic Theory of entrepreneurship, (Foss, Klein, Kor, & Mahoney, 2008) especially, its Radical Subjectivist version (Chiles et al., 2010) as a methodological foundation for the identification of entrepreneurial subjectivity, sources of its activity and specification of interactions that impact the

functioning of entrepreneurial subjectivity.

All studies mentioned can serve as a methodological foundation for the investigation of entrepreneur's subjectivity and identity, because they shed light on their main elements – beliefs, meanings, intentions and mental models.

3. Findings

3.1. Cognitive base of the entrepreneur's activity

As illustrated above, the existing approaches show the two extremes in defining the role of the entrepreneur as a holder of a certain social role – it is either determinism related to resources or exceptional creativity. The latter definition does not even assume that the property is assigned to an entrepreneur, because the primary resources – labor, land and capital – had already shaped their owner's role. In the works of the older generation of Austrian economic theorists, an entrepreneur creates its own resource inseparable from his life – his understanding of the market information related to unmet needs and his scheme to meet these needs, which he elaborates based on this information. This scheme is seen as a “combination”, in which all the primary resources assigned to him on a contractual basis are put together.

Entrepreneurship theorists' oscillation between these two extremes is observed in all periods of entrepreneurial studies. This occurs because this phenomenon had been studied throughout an insignificant time period, so the studies had focused on particular characteristics of entrepreneurship in the context of the establishment and decay of classical capitalism. Therefore, the evolutionary view of entrepreneurship is seen here as a means to address theoretical challenges.

Since the entrepreneur as an economic agent represents an institutionalized phenomenon, the general picture of the evolution can be better described in terms of institutional theory. The concept of three mechanisms of institutional change by DiMaggio-Powell seems too historically specific in this regard. In this context, notions of cognitive, normative, and regulative pillars of institutions proposed by W.R. Scott (2008), seem to be more flexible to describe a variety of historically determined types of the entrepreneur.

It is evident that the entrepreneur is characterized by the predominant significance of different institutional pillars in different historical periods. Under conditions where regulative institutionalized factors dominate (pre-industrial economy), the entrepreneur is characterized by a particular legal *status* inherent in his identity. This syncretism of a human and his position in the society does not indicate that he holds a particular social role. The role for an individual is considered an external construction composed of social norms, which is a manifestation of normative pillars in the economic life of the society. The market mechanism is the major factor responsible for formation of social norms in the sphere of economy (i.e. prices, interest rates, etc.). Here the norm of entrepreneurial activities lies within adaptation to the market environment, which serves as the main apologia of environmental theories. Beyond any doubt, there are opportunities for diversification of entrepreneurial identities, including emergence of genuine innovators, but they are realized only when they act as an essential condition for the formation of a new normative order.

Under conditions when similar processes that are already of cognitive nature become dominant, a human is no longer defined only within his role. Now the crucial social property of an entrepreneurial

agent is the ability to create his/her Self and interact with other individuals. This does not negate the social construction of peoples' qualities, but makes the process interactive and more centered around preferences, knowledge and aspiration of individuals who demonstrate creative thinking and acting. In order to determine the source of such activity towards oneself and the environment, we require new concepts that are different from the concepts of status and role of an entrepreneur. In our opinion, the concept of entrepreneurial subjectivity (Szeman, 2015) and epycognitive niche, through which and within which this subjectivity is realized and developed, are an adequate expression of entrepreneurialism of such type.

3.2. Entrepreneurial subjectivity: a source of entrepreneurial action under cognitive capitalism

How does the entrepreneurial subjectivity function acting as a cause for the business action? Before analyzing this from the cognitive-interactive perspective, we will try to present entrepreneurial subjectivity as a process in its most abstract form.

Entrepreneurial action results into a new value. However, initially entrepreneurial action is found within an environment filled with objects far from the world of values. Even financial assets are presented there as a mere instrumental resources among others, not as universal valuables, but tools for special individual activities. Accordingly, the mystic behind the entrepreneurial action lies within the transformation of immanent reality objects into special symbolic transcendent essences. In this regard, the entrepreneur is a mediator between these two realities. He is capable of such mediation due to ontological oscillation, as referred to by psychologists and social theorists (Weick, 1995; Burrell, & Morgan, 1979).

The concept behind ontological oscillation consists in inner duality within the entrepreneurial subjectivity itself and in the constant metamorphosis of one pole to another. These poles are two different kinds of knowledge – practical (instrumental-and-functional) and evaluative (interpretive), which give rise to fundamentally different ontological pictures.

From the perspective of the evaluative knowledge, the human realizes that he is not satisfied with the reality in which he finds himself. However, this knowledge is not only evaluative. It is also interpretive and intentional. From the standpoint of this knowledge, a person experiences desires, manifests the will to overcome the discomfort caused by the reality with which he is contacting. This means that this knowledge is also sense-making or value-creative. Interpretative knowledge comprises not only the knowledge about objects and relationships between them, which tend to transform, but also the understanding of how the situation changes with respect to changes in objects and relationships that allow to overcome the imperfections found. Therefore, the activity related to these improvements leads to changes in practical knowledge, which expands its content, incorporates new emerging skills.

Practical knowledge is associated with the objects and their functions. A human interacts with them as one of these objects, which have to coexist within one organized entity. In other words, the human acts here as one of the forces of the objective world who manages to preserve the intentionality already established. He overcomes the resistance produced by forces that belong to objects being organized and transformed based on the stability of their properties, i.e. functions used to interact with each other. Human functions are presented as defined in relation to actual things and relations. Knowledge in this framework is characterized as objective, functional and instrumental. It describes the world of stable objects and their functions, among which there is a place for human himself. His qualities are stable and

transparent to him and allow him to act with confidence, activating all the functional relations between all the resources related to this activity, one of which is the human himself. However, staying in this world of reliable ontology is not for long.

Since the comprehension of the world never stops, the interpretive knowledge is changing due to the fact that it is now formed based on newly developed abilities, that is, the content of instrumental-and-functional personal knowledge. It alters the newly acquired interpretation of the world and the place of the human in it. This standpoint opens a new perspective on properties of the surrounding objects, including its threats, risks and drawbacks. This gives rise to a new cycle of ontological oscillation.

In the context of the normative determination, the social normative order is created through the things, through the public-normal conditions and the ways to use them. With regard to the entrepreneur, the process of ontological oscillation comprises many elements outlined in the entrepreneurship theory. We restrict our study to the most fundamental of them. For the purpose of creating new value, an entrepreneur, on the one hand, employs alertness (Foss, & Klein, 2010), which enables him to constantly compare market norms (prices) and his costs; on the other hand, due to the opportunity discovery (Klein, 2008; Alvarez, & Barney, 2005), he reveals new properties of resources used in his business. As a result, an entrepreneur constantly reshuffles heterogeneous capital (basically, constantly changing properties of resources used) of the organization (Lachmann, 1956).

The latter cannot be delegated to the managers as reshuffling implies constant redistribution of property rights (Foss, Foss, Klein, & Klein, 2007). That is what converts him from the master of the episode (which is the establishment and startup of the company), into a constantly operating agent.

Under the conditions of cognitive capitalism or knowledge economy, the dominant form of capital is a human capital. Thus, the entrepreneurial action now lies within the discovery of new properties of human resources and reshuffling the company's human capital properties. Within this process, the entrepreneurial knowledge works with workers' knowledge, entrepreneurial subjectivity – with their subjectivity, or mental models, as entrepreneurial theorists prefer to call it (Foss, Klein, Kor, & Mahoney, 2008).

Reshuffling mental models means establishing a multimind (Ornstein, 2015) enterprise or an entrepreneurial team. It should be noted that entrepreneurial team and entrepreneur's team are different concepts. This verbal difference comprises all the controversies and benefits of the cognitive entrepreneurialism.

3.3. “Interpretative loop” and emergence of team entrepreneurialism

The development of cognitive capitalism makes the abovementioned duality of subjectivity ontological oscillation a core property not only for an entrepreneur, but also for all participants of a business organization. As a result, a post-Fordist worker (Virno, 2004) finds himself in a dual position. On the one hand, he is a subject of various business solutions aimed at the most complete fulfillment and use of his productive capacity. On the other hand, such employee, when controlling the material, financial and human resources in his custody, reveals their new properties, and starts to use them in his own way, which indicates that his subjectivity has changed, as well as with the ontological oscillation experienced by an entrepreneur.

Now, following the logic of the ontological oscillation, an entrepreneur has to reveal independently not

only newly emerged properties in people, but also new properties of other resources already opened and used by these people. It is obvious that an entrepreneur finds himself in a difficult situation, since the properties of non-human resources are hidden from him due to both subjective judgments of the people using them, and the changes in the subjectivity of these people. Therefore, instead of taking the active position that consisted in subjective and, therefore, directive management of the staff and determining its properties, an entrepreneur now has to adapt to changes in people's properties.

After the scope of analysis has extended to the workers' developed interpretive cognitive ability that enables them to generate meanings independently and, accordingly, the variety of ways for their application in the ontological oscillation of the original entrepreneur; a new concept "interpretive loop" arises. The emergence in what was at first a relatively unrestricted transition from the generated meanings of resources to their practical realization through mediating sense-making activities of managers and employees leads to the fact that an entrepreneur is deprived of direct contact with the resources and functions, now oscillating between the perception of them from the perspective of his own centrality and the centrality of employees' position. In such position, the latter see the entrepreneur as a resource provider for their own projects, which represent a realization of their own understanding of activities within the enterprise. We do not investigate here whether these projects are manifestations of productive, unproductive or destructive internal entrepreneurship (Baumol, 1990). We only acknowledge the existence of such projects and the ontological oscillation cycle in cognitive workers.

This is explained by the fact that the interpretive subjectivity of a worker is inalienable from its bearer. Therefore, in addition to the functional-instrumental knowledge of a worker, upon hiring, an entrepreneur obtains his ability to produce interpretive knowledge. This leads to the fact that the former activities on combining resources are now in practice and in theory converted into getting the resource owners to cooperate (Alchian, & Demsetz, 1972).

If an entrepreneur still considers himself the owner of everything that happens in the enterprise, and he is still in the position of naive realism, (Shaw, Turvey, & Mace, 1982) then he might find himself in the worst possible position, providing resources for many projects of his employees. Another scenario of a consistent use of the functionalist paradigm (Morgan, 1980) in the way of thinking and the activities of an entrepreneur consists in his transformation into a supervisor who has to control everything. However, the "interpretive loop" will be reducing the control effectiveness, constantly increasing its costs. This raises questions about the future of a traditional entrepreneur who got into an "interpretive loop", as well as managers and professionals who have started their own project while working at the enterprise.

If we put off the already mentioned scenarios describing the total control and charity, the entrepreneur whose business is based on cognitive properties of human resources is doomed to convert to team entrepreneurship, which implies reaching agreement on "derived entrepreneurship" (Foss, Foss, & Klein, 2007).

It would be quite unrealistic to think that team entrepreneurship is an externalization of the ontological oscillation within the entrepreneurial subjectivity through externally assigning the functional-instrumental knowledge to the "derived entrepreneurship", while assigning the interpretive knowledge to the "original entrepreneurship". This approach restores the original position of "derived entrepreneurs" as agents. A more reasonable approach, in our opinion, would be committing the entire interpretive knowledge about the properties of the resources to the partners among management, while the original entrepreneur has to

be assigned the priority in the interpretive knowledge about the professional qualities of derived entrepreneurs, key suppliers and key competences of the company. The same principle is applied when it comes to assigning the specialization in the subject-instrumental knowledge among actors being considered.

The division of business into derived and original embodies the controversy of the cognitive foundation of the entrepreneurial subjectivity in general. If it is determined through administrative or market means, it will prioritize regulative or normative pillars in the formation of entrepreneurial subjectivity. Therefore, the major challenge for cognitive entrepreneurialism development is the search for cognitive mechanisms that can eliminate controversies associated with a distinct heterogeneity of participants of the entrepreneurial team. This is a promising pathway for further investigation of the entrepreneurship and creative business ecosystems.

With regard to management, the people who have learned how to contact with the resources informally and use them creatively, i.e. have the opportunity to experiment with their properties (Foss, Klein, Kor, & Mahoney, 2008) naturally acquire entrepreneurial skills. A lot depends on the entrepreneur's ability to rediscover these qualities and see himself and his company in a new way. Most of the traditional enterprises based on regulative and normative pillars are destroyed at this point. But it can be a "creative destruction" (Schumpeter, 1994). For managers, it is usually a step towards self-organization of the enterprise on the basis of those elements of the entrepreneurial subjectivity, which were formed because they were allowed one to experiment with company's resources. Since management suffers from a lack of entrepreneurial competencies, it is more likely to follow the way of team entrepreneurship than their former boss, for whom management team retirement is also an experiment with the resources. The only question here is what will be the price of such experiment and how an entrepreneur is going to interpret it.

4. Conclusion

Thus, the new mode of entrepreneurship is related to the increasing importance of cognitive factors in the formation of social objects and subjects. Former dominant factors – regulatory and normative – treated the entrepreneur's special status in the society and his social role as a defining characteristic. Thus, the main sources of entrepreneurial activities were regulatory directions (what to produce, how to produce, for whom, as well as the directions on what way of life to follow and what place in the social hierarchy to occupy) and normative requirements of the collective rationality existing in the market environment.

The effect of cognitive pillars, rising from the individual preferences, sense-making, projecting and aspiration that grew significant in the society, is manifested in the emergence of entrepreneurial subjectivity as a defining characteristic of an entrepreneur. Entrepreneurial subjectivity is supported by a cognitive-interpretive mechanism that creates tension in highly-intellectual environment of innovation enterprises and their ecosystems. In the most abstract form, this tension is described by the concept of ontological oscillation, which expresses the heterogeneity of entrepreneurial knowledge and the contradiction between its functional-instrumental and interpretative performance.

Under the post-Fordist conditions, not only functional and instrumental knowledge of an employee becomes socially significant, but also the interpretative one. This leads to the fact that employees are involved in the discovery of resources' new opportunities as much as the entrepreneurs are or even to a

greater extent. This leads to the fact that they create their own meanings for their activity, thereby transforming the executor's labor into the activity aimed at their own creative project.

On the side of the entrepreneur, this causes the "interpretive loop" effect in the course of the ontological oscillation of his subjectivity, when he finds himself barred from performing his traditional function of discovery and implementation of resources' new properties; thus, perceiving these properties through workers' interpretations.

In this context, the possibility of running enterprise within the former regulatory and normative framework is significantly reduced or even exhausted, which encourages searching for forms of team entrepreneurship. There is no reliable mechanism for the formation of entrepreneurial teams on exclusively cognitive basis. Therefore, we can assume that the cognitive pillars of the formation of entrepreneurial subjectivity and entrepreneurial teams need to be supported by the regulatory and normative ones.

Therefore, entrepreneurial teams and individualities are viewed as a prospective area for entrepreneurial studies that should be focused on identifying and estimating the degree of the impact of all these factors on the formation of social qualities of both teams and individuals. In our view, investigation and search for proper cognitive mechanisms that ensure the change and transfer of heterogeneous entrepreneurial functions within entrepreneurial teams should be the most productive.

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