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Neurobiological Approach for Business Agility: Neuro-Agile as a Response to the VUCA-BANI World.

Abstract. This article analyzes a neurobiological approach to flexible methodologies and discusses the reasons Agile frameworks are not suitable for every company. The author explains the key features of implementing flexible methods (Business Agility, team coaching, executive coaching) for small groups (teams, companies, etc).





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Today, the application of flexible methodologies as well as implementation of facilitation techniques and Agile frameworks are limited. For anything delivered from the outside is always based on a clearcut algorithm rooted in a certain methodology. That is why we often encounter skepticism towards Agile or coaching tools practiced in the business environment. The Cynefin framework developed by Dave Snowden allows different systems not only to identify themselves, but also to understand the most appropriate management methods and actions underlying different domains with regard to the characteristics of the system [1].

A brief description of the two systems where a variety of methodologies are possible and applicable are shown below: I'd like to emphasize that this is my interpretation of the framework linked with the postulates of evolutionary system theory. For a more comprehensive view, I would like to discuss the matter with various specialists and authors.

Complicated systems

In these systems of the Cynefin model, there is much less certainty about any potential benefits. We simply do not know the endgame. It is deemed impossible to plan the result in advance while considering all the nuances. After all, the team may not be experienced in solving such problems and addressing such issues. Until the team (and the business) acquire the necessary experience, it is impossible to plan ahead and predict the ways the tasks might be resolved. Good practices can only be shaped with time. In complicated systems, the experience of working in new conditions leads to more efficient work. Understanding how to work effectively in this system



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based on new experience and "good practices" does not necessarily guarantee a predictable result. Yet, it may lead to several opportunities. In complicated systems, one can resort to the expert opinion. That is, you can invite a consultant who acts as an expert - someone who has already worked with similar problems and addressed similar difficulties. Such a consultant can tell you how you can act your best and teach you practical techniques and tools. Even though the result would still be inconclusive, you will get an approximate understanding of what you can count on and under what conditions.

Complex systems

In a complex system, or in an unparalleled environment, it becomes very unlikely to predict any possible outcomes. In a complex system, we work under conditions of increased uncertainty. So, how shall we do that? The most reasonable approach to work and management in an unstable environment is to work through experimentation and hypothesis testing. We can only find out the result retrospectively. It is important to understand that sometimes we may have the illusion that we know the outcome, and we might be dead wrong. That is why the Cynefin model is useful — it allows us to predict certain risks in a particular system, and draw our attention to account for these risks during work process. Such an error may be insignificant if only a small detail was overlooked. But if we have been developing some complex solution for several weeks, months or years, it can lead to stagnation both time wise and financially.— That is why Agile and Scrum rely on and incremental approaches to product development —when working in conditions of increased uncertainty, the team gains the opportunity to acquire more experience and feedback. That's why the delivery of new products tends to skyrocket. Further, enriched by new experience and productive feedback from the system, you can continue to work on the product more efficiently.

In his framework, Dave Snowden suggests that agile coaching methodology should be attributed to complex systems. In fact, he proposed using Agile as a way to regulate such a



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system. While I do not want to contradict the author of the model, but I discovered the following. I agree that Agile as a philosophy and mindset can be applied in the complex systems, but the frameworks that are offered are often accompanied by multiplicity of events, rigid rules, and certain roles - all that sounds a bit too convoluted. And it sounds that someone's expertise that directs the work in that particular way. Sure, there is flexibility, because people either advance due to short iterations or examine potential flaws in the processes depending on which framework they use. And there are many flaws and areas of growth.

If we talk about a complex system, we rely on the purest form of Agile - when neither leaders nor teams know for sure what can happen or how to build the work processes. Hence, the whole framework has to be rebuilt. My original approach is based on our knowledge of the VUCA-BANI worlds. Likewise, it is rooted in my profound understanding of neurobiology, small group communication and their psychology, as well as anthropology, and sociology.

Let's take a break from the Cynefin framework and recall the situation with toxic leadership, inadequate feedback, broken trust, and explore this company in greater detail. Let me introduce a case I was working on where a person suffered from tunnel thinking when faced with a problem.

Basic characteristics are as follows: large international company FMCG Am executive team consisted of 11 executives. None of the 11 people could be excluded. The team displayed



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unity; and every member of the team was equally important. There were 3 players in the team, especially two of them were considered toxic (360 degree method was used). HRD invited me to a meeting to inform me of a great turnover of Agile specialists and team coaches. For 2 years, we had applied different techniques and frameworks when working the executive teams, including individual coaching, executive coaching, mentoring, and Business Agility approaches. However, HRD seemed to be giving up because they deemed it impossible to work with "toxic" leaders.

I work with various requests, including the realm of hidden and explicit conflicts in the team, resistance, and/or sabotage.

The team and I struggled to figure out what constituted "toxic leadership" in their company. It turned out that the concept of "trust in a team" is based on various studies, including Google [2] research. The team in which I happened to work was very diverse (age, gender, etc.). The team enjoyed clear communication channels, As they had been working with external coaches and, to a degree, benefited from that.

So, what did the team mean when pointing out toxicity and lack of trust? Almost at all times, as reported by the colleagues, several leaders put spokes in the wheels when speaking about competitors, criticizing other suggestions, or voicing their doubts. That didn't quite align with



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the values the team was eager to practice - kindness, integrity, open mind, client-orientation and so on.

Some Agile practitioners do not see the value of competitive analysis, as they believe that money the customer brings to you is an indicator of the value they present. In general, I understand where this perception comes from, because the Business Agility framework is a client-centric approach.

In this situation, the objections voiced by team members (e.g. "Competitors have done it this way!", "Why don't we do risk-related analytics?", "Why don't we look objectively at certain failures?") were perceived as toxic.

"Our directors have learned to communicate, set goals, provide feedback and move quickly in our meetings – it's good, but sometimes it doesn't look quite adequate to the situation. As if there is an excessive positivity, there is no place for critique and objections, and we don't like it. They ask us to speak out, and when we do, their reaction - even their facial expressions - communicate criticism," one leader said on the topic of consistency. By using the pronoun "we", the leader meant 2 more colleagues. At the same time, two other colleagues were using the pronoun "I..."



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In that discourse, there was a feeling of fragmentation as if a person opposed themselves to the collective. There were a lot of nuances related to work issues which were clearly visible during shadow coaching. I attended the meetings and observed where the resistance is palpable and why.

Neuroscience for Agile and team coaching.

What do I know about trust? Let's look at this phenomenon from the point of view of neurobiology, as well as evolution system theory. In the latter case, the expediency of trust in biological organisms should be considered as an evolutionarily justified trait that was essential for species survival.

From the point of view of neurobiology, it should be considered as a combination of neuroanatomy and neurophysiology (neuroendocrinology). From the point of view of neuroendocrinology, the hormone oxytocin is of great importance in the development and demonstration of trust. The neuropeptide oxytocin plays an important role in regulating social behavior in animals, including humans. Previously, it was proven that under the influence of oxytocin, people become kinder, more trusting, and more attentive to others. These studies, however, did not take into account the parochial nature of altruism among people as it was directed towards "their own" [3]. New experiments conducted by Dutch psychologists have shown that the positive effects of oxytocin extend to those whom a person considers "theirs"



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as opposed to members of competing groups. Oxytocin increases the desire to protect one's own and can stimulate the application of "preemptive strikes" against outsiders in order to protect against possible aggression on their part. Hence, in this situation, it's great to look at the concept and a feeling of trust from the point of view of the evolutionary mechanism: trust was necessary for us as a species in order to survive and continue our kind, create families, communities, and collectives that helped us survive together and hunt more dangerous large predators or herbivores. And the most important thing here is to understand who was taking care of the children at that time. All gregarious and social creatures are those whose trust was well developed, due to evolution. This is all well- described in the evolutionary-system approach. This is being studied by neuroscientists, anthropologists, biologists in general, geneticists [4].

But let's get back to our team. It is important to understand how this very same oxytocin affects different people and how it affects manifestation of trust in the team.

To do this, let's speculate a little at the level of the experiments conducted, which will allow us to adhere to ethical aspects while relying on scientific factors. There is an anatomical and physiological difference in individuals of different sexes. The brain and neurophysiology are no exception. Oxytocin acts on the central nervous system, and its receptors are located in some parts of the hypothalamus, amygdala as well as in the posterior horns of the spinal cord and the cerebral cortex. Scientists from Louis Pasteur University, using autoradiography



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methods, calculated the number of oxytocin binding sites in male and female rats of different ages [5]. Males demonstrated a higher density of these sites than females, but only in those areas of the brain that are sensitive to sex steroid hormones, that is, they have receptors for them. (If a male rat is castrated at a young age, the testosterone level in its body will be significantly lowered, which will affect the number of oxytocin binding sites in the brain, but not in the spinal cord).

In humans, the interaction of oxytocin and the amygdala also depends on gender. The functions of this part of the brain are diverse; they are responsible for our emotions and perception of social information, among others. Researchers from the University of Freiburg (Germany) instilled oxytocin in the subjects and showed images of angry and happy faces; in women, the amygdala neurons were more active than in the placebo group, while in men their activity decreased [6]. The researchers noted that the effect did not depend on the level of oxytocin in plasma, neither it did on the content of female sex hormones estradiol and progesterone. It was concluded that oxytocin reduces the reactivity of the male amygdala to emotional and social stimuli.

In the process of approval/condemnation, the left amygdala is activated (there are two of them in the brain, one in each hemisphere), apparently, it is responsible for the critical assessment of other people. Oxytocin increases the activity of the left amygdala in men who condemn people with poor characteristics, and in women who praise the worthy. On the



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contrary, in men who praise and women who condemn, oxytocin suppresses the activity of the left amygdala. The left amygdala interacts with another part of the brain - the so-called island of the right hemisphere. Oxytocin enhances this interaction in men who criticize, but weakens it in women who praise. All these patterns are valid when the participants of the experiment evaluate faces, but not objects. Obviously, oxytocin affects the left amygdala only when assessing social characteristics [7].

What I see now in the coaching field and in the agile field: People know about oxytocin and its relation to trust, when people start spending working hours and coffee breaks together, communicate well, etc. In many coaching sources, you will find that if trust is developed in the company, in the team, you will see people who communicate easily, are psychologically safe and generally look happier, as well as focused on work. This is true, but this truth is incomplete. What do studies, including the ones cited above and studies on neurobiology of small groups tell us? That the reaction to an increase in oxytocin (read - trust) in the team will be different for different team members.

So, in our case, one of the team members spoke about the "excessive positivity" they observed. Another "toxic" team member noted the lack of business guidelines in some situations. It was a finance director who was labeled as the most toxic one. Among other "toxic employees" were an IT director and a CEO adviser. All 3 of them were 32-45 years old, had extensive experience and expertise. Another thing is that the same oxytocin that



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increased in their body, (and this is also my assumption,) due to what they saw in the team they went through different coaching options, and this led to the fact that they began to think how to protect the company at all. They became more committed, but at the same time they did not manifest themselves in the way that was expected.

The first session after such diagnostic meetings was educational. I discussed the structure of the brain, about the Cynefin model, how it is possible to manage toxic positivity and how team members can react to certain conditions with an increase in trust in the team.

The reaction was as follows: people who talked about the presence of toxic leaders took a completely different look at the situation, at their colleagues, and one of those who was called toxic came up to me on the sidelines and thanked me. He said, "In addition, I felt and understood that I was not being listened to or even heard; I did not find an answer to the question why that was happening, and I began to withdraw into my shell. It's easier to just keep silent than to see that my colleagues were giving me cold treatment. I hope now it will not be so hard for me to share my opinion and express anything at all. Recently I made a decision not to ruin relations within the company and just keep silent. Now I understand that our work will change a little bit."

If we go back to the beginning of the narrative, it is almost impossible to offer rigid frameworks in a complex environment. There are certain rules that are offered by flexible methodologies -



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whether it's Agile approaches or facilitation techniques - they may not be suitable for certain teams. For me, true agile is when we follow the client. If we talk about ICF coaching, then such a deep approach may be practiced only by PCC or MCC. ACC ICF offers tools - scaling or certain exercises that will help clients reach certain insights.

I believe that the tools that are offered to the client in the form of a Guide or a ready-to-operate methodology are applicable in a complex system using the Cynefin Framework. Dave Snowden may disagree with me :). Frameworks and coaching at the ACC level are not suitable for a complicated system, because these instruments are somewhat fixed tools, this is a rigid kind of expertise, and all this remains with us in an orderly complex system. By introducing frameworks into the company, we bring expertise from the outside, which may not always be suitable. Thus, I understand why coaches try to do Agile, and not be Agile.

In a complex system, in my opinion, the most flexible suitable approach is following the client. Because no one has a better expertise than the client themselves in the field in which they work. But even the client himself cannot predict what will happen in a turbulent world. The best thing is to rely on what has proven to be rock-solid.

Evolutionary mechanisms, our neurobiology, and our principles of neuroplasticity form the basis of the company's individual frameworks which I call the Neuro-Agile approach.



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Reference list

1. <https://thecynefin.co/about-us/about-cynefin-framework/>
2. <https://rework.withgoogle.com/print/guides/5721312655835136/>
3. Choi J. K., Bowles S. [The coevolution of parochial altruism and war](#) // Science. 2007. V. 318. P. 636–640
4. D e Dreu C. K. W. et al. [The Neuropeptide Oxytocin Regulates Parochial Altruism in Intergroup Conflict Among Humans](#) // Science. 2010. V. 328. P. 1408–1411
5. Neuroscience, 2005, 135, 147-154, doi:10.1016/j.neuroscience.2005.05.025
6. Psychoneuroendocrinology, 2010, 35, 83-93, doi:10.1016/j.psyneuen.2009.06.016
7. Psychoneuroendocrinology, 2010, 35, 83-93, doi:10.1016/j.psyneuen.2009.06.016
Proceedings of the National Academy of Sciences, 2016, 113, 7650-7654, doi:10.1073/pnas.1602620113