Motivating Creativity - Creating Motivation

Maren Baermann

Innovation Psychologist, Innoviva Consulting, Gustav-Heinemann-Ufer 144, 50968 Cologne, Germany

Corresponding author's email: baermann@innoviva-consulting.de doi: https://doi.org/10.21467/proceedings.154.14

ABSTRACT

We live in challenging times. And to flourish in these times and work towards a sustainable future, I believe creativity is the best instrument we have. I see creativity as the magic ingredient for complexity competence, that is, the ability to navigate complex contexts. Thus, my goal is to enable people, teams, and organizations to be more creative.

The biggest leverage to strengthen people's creativity is motivation. Yet, that is not so easily done, as the good ol' carrots and sticks methods tend to destroy motivation on the long run (Pink, 2011). The way to go is to build an environment and enable a culture, that fosters motivation. The model of the Self-Determination Theory (SDT) by Deci and Ryan from 1985 (Deci & Ryan, 2002) provides a rich, well researched foundation for this. SDT describes the psychology of autonomous motivation and the three factors, i.e., psychological needs that—if satisfied—enable the development of sustainable motivation in people. These are autonomy, competence, and relatedness.

When we create truly agile work settings, these three levers are addressed astonishingly well. When they are mishandled, however, they can turn highly creative and well-motivated teams into mobs of zombies who are merely doing their jobs by the book, failing to think and find solutions for themselves.

Keywords: Autonomous Motivation, Creativity, Complexity Competence, Mindset, Psychological Safety

1 Introduction

The inner engine of autonomous motivation enables people to handle complex challenges and uncertain settings in a healthier and more productive way. This type of motivation makes people more persistent and lets them suffer less from ambiguity-related stress. And, most importantly, it helps them to be more creative (Deci & Ryan, 2000)

This is not a one-way street: Living and working in a healthy, creative setting and team in turn also boosts motivation. Experiencing the power of creating solutions to complex challenges is very energizing. Having the tools to explore options and decide on future pathways, feels invigorating. Much more than incentives, mastering a tough challenge as a team in an innovative way is very fulfilling. All this can be very well explained by the Self-Determination Theory (SDT).

As an Innovation Psychologist, I have been working with tools and impulses that integrate the three basic psychological needs that require fulfilment to develop and maintain highly robust motivation. They can be applied in work teams or by individuals. Their common denominator is that they aim to inspire an upward spiral of autonomous motivation to enhance creativity and mental agility in people. So, if creativity is our instrument, let's get rocking!

In this paper, I will describe my take on how to deal with complexity as the Cynefin Model (Snowden & Boone, 2007) describes it and the importance to handle it well. I will give an overview of SDT (Ryan & Deci, 2002) and complement it with Collin's and Amabile's view on motivation (Collins & Amabile, 1999). I will also draw conclusions on how creativity influences motivation. Finally, I will propose how this can and should influence how we set up teams and organizations to foster motivation and creativity alike. In this last section I will provide a tool that I find helpful as a starting point. and maybe as a continuous companion on the way – you decide.



© 2023 Copyright held by the author(s). Published by AIJR Publisher in " Proceedings of the 14th European Conference on Creativity in Innovation" (ECCI 2022). Organized by the European Association for Creativity & Innovation (EACI) on November 9-10, 2022.

2 Thriving in a Complex World – Complexity Competence

Why are our times so challenging? We face a daily flood of new information, and we live in a multitude of existential crises. One can say: We live in the age of complexity. And in this VUCA world ("Volatility, uncertainty, complexity, and ambiguity," 2022), it's hard to be and stay creative.

In the Cynefin model, Snowden and Boone (2007) define the complex context as one, where leaders must "probe, sense and respond" to handle the fluctuating situation. They write that instructive patterns can emerge, however, if the leader constructs experiments that are safe to fail" (p. 8/13). The environment they describe as necessary to handle complexity, needs to be safe for experimenting (probing), safe for reflecting and learning (sensing) and safe for generating ideas and creating solutions (responding).

Setting up targeted experiments, as well as conjuring a proper reaction from the results require a high quality of creativity. The sensing is most successful when done without cut and dried opinions on possible outcomes. All in all, it is only possible to catch the emerging patterns and solutions to this type of problem with an open mind and with the guts to venture into the unknown. Snowden and Boone suggest that it is the job of the leaders to enable this bias-free approach by facilitating ideation, communication, and debate. In other words, Snowden and Boone see psychological safety (Edmondson, 2019) as a prerequisite to deal with complex situations effectively.

On the other hand, Snowden and Boone warn in their article about falling into the trap of wanting answers too quickly. When dealing with unknown unknowns, patience is required to let solutions ripen. As there is no apparent connection from cause to effect, analyzing the situation deeply is not helpful. Hence, it takes heuristic thinking.

Bloom differentiates between higher-order thinking and lower-level thinking ("Higher-Order Thinking," 2022). The latter is involved when performing algorithmic tasks, which can be carried out using process steps or a script. They comprise routine activities where decisions can be made using a formula or a data sheet, which can be delegated.

In contrast, higher-order thinking activities are necessary for heuristic tasks. These go beyond the mere reproduction, understanding or application of knowledge. In concrete terms, this means analyzing, evaluating, and creating. They involve solving problems for which the answer must first be discovered and can often only be solved by experimental approximation. There are gaps in information, the context changes in the ongoing project or the solution must be created first. Since there are no prescribed procedural steps for these tasks, they cannot be automated or delegated. Heuristic tasks do not depend on computing power but are shaped by experience and creativity. These are the exact characteristics of complex contexts described in the Cynefin model.

3 What is Autonomous Motivation and Why is it so Valuable

Motivation is what makes people act, what drives us all to *do* things, our inner engine. But there are very different qualities of motivation. I will distinguish here between intrinsic and extrinsic as well as autonomous and controlled motivation.

Intrinsic motivation stems from the task itself. It is inherent in the *behavior* because the activity itself gives pleasure or fulfillment. Hence, by definition, the intrinsic motivation does not depend on a result of the behavior or the satisfaction of a need. A child enjoys the game, the result of the game itself is not important to her.

In contrast to that, if the reason for a behavior lies *not* within the behavior itself, it is defined as extrinsic. This encompasses a wide range of motives. The *quality* of motivation for an activity increases with the degree of conviction for this behavior: How well it fits a person's values, beliefs, and the fulfillment of their needs. (See figure 1)

Autonomous Motivation



Figure 1: Visualization of the terms of SDT, adapted from Ryan & Deci (2002)

The more the goal is subject to one's own sphere of influence, the more robust and enduring the drive to achieve this goal. The less there is external influence, the more autonomously people act, the closer they are to intrinsic motivation. "Almost intrinsic motivation" arises when the activity itself is not necessarily fulfilling, but the behavior satisfies the three universal psychological needs of competence, relatedness, and autonomy.

On the other hand, there is controlled motivation. Behaviors are motivated, for example, by punishment or reward. When people try to avoid shame or attempt to strengthen their self-esteem, this is also considered controlled motivation. Unfortunately, this often leads to people not taking responsibility for their actions. They only do what is necessary to avoid punishment or shame. These controlling motivators inhibit the degree of conviction. For the sake of brevity, I will just be differentiating autonomous motivation from controlled motivation.

3.1 Three Universal Psychological Needs

Ryan and Deci (2002) describe three psychological needs that have proven to be stable over age, gender, and culture. Even though satisfaction of these needs may be achieved in differing ways, the needs as such can be considered universal.

If these three basic needs are not met over a longer period, people's motivation in this context decreases. At the workplace, this is always accompanied by a loss of quality of work, but also by lowered well-being and even worse: reduced health. In fact, frustration due to unmet basic needs contributes significantly to phenomena such as burnout, but also to destructive work behavior.

3.1.1 Competence

The need for competence translates to people wanting to see that their actions make a difference. Experiencing high degrees of efficacy makes people feel satisfied and gives them an incentive to develop further and to expand their competence in an area. This striving is also described as a need to improve, finding challenges that require us to stretch and evolve. Setbacks or slow progress are interpreted as a learning opportunity and can contribute to fulfilling the desire for competence.

3.1.2 Relatedness

Relatedness describes being part of a larger whole. This refers both to the social component and to the purpose of an undertaking. On the social level, the satisfaction of this need feeds on maintaining a healthy relationship with other people, being appreciated as an individual and building sustainable bonds. The meaningfulness feeds on the fulfillment of one's own value structure, the contribution to an inspiring vision and the desire to create something lasting and valuable.

3.1.3 Autonomy

When behavior is exhibited on a voluntary and self-determined base, it is considered autonomous. People feel the need to make their own decisions about their actions. They don't want to be controlled or manipulated, but rather be responsible for themselves. This is not to be confused with a need for independence or people who tend to be loners. As the two other basic psychological needs, this need for autonomy is innate.

3.2 Effects of Autonomous Motivation

When we observe highly motivated people, we often describe them as persistent and passionate about a topic. We instinctively see that an urge, to advance a topic even under difficult conditions, is not controlled from outside, but comes from within the person. And we admire that. However, there are a few more interesting observations:

Autonomously motivated activities make people happier and more resistant to stress, since the performance of the action itself (and not only the achievement of the goal) is experienced as fulfilling. This has positive effects for the employees, and it is also correlated, for example, to less absenteeism. Also, autonomously motivated behavior leads to fewer errors. (Pink, 2011) This is because employees are more engaged and focused on the job rather than on achieving an external incentive. And they are more agile and innovative because they are not dependent on specifications that were given to them in a now outdated context.

To sum it up: For tackling our current and future crises, we need more self-determined people. Thus, we need to create societies and systems that satisfy the basic psychological needs of humans to enable them to run on the sustainable fuel of autonomous motivation.

3.3 What does School do to us Concerning SDT

Numerous scientists have bemoaned that our education systems do not enable children and young adults to thrive in the world they are supposedly educated for. The main critique is that in the present, schools around the world are set up according to efficiency criteria originating in the 19th century. Often, they function as retainer facilities, training kids to perform algorithmic tasks. Schools spawn competition, conformity, and controlled motivation. But the future cannot be invented by drudging followers, using checklists from history, the current crises cannot be overcome by applying solutions from the past.

Yet, analyzing problems and then finding the appropriate, i.e., "correct" preconceived response is what kids are taught to do when facing challenges. They learn in school that there are right and wrong answers and that someone else will be the judge of the correctness of their responses. This shifts the responsibility for success to an external force and thereby diminishes the self-determination in the problem-solving process, which in turn diminishes autonomous motivation according to the SDT-model (Deci & Ryan, 2000). If the degree of conviction is lower, which corresponds to less internalized values or reasons for a behavior, people will make their actions more dependent on external prompters.

This can work out in clear contexts where the mechanics of a solution are so obvious, that they can usually be derived from a checklist. It would even be true in a complicated context, where a problem can be

Motivating Creativity - Creating Motivation

resolved when tackled with sufficient expert knowledge. But for complex problems, by definition, there are no right or wrong answers, as the setting may change in unforeseeable ways. What helps, is to stay alert when observing what is emerging. And to do so until the situation is manageable. This requires the right type of motivation to actually arrive at an appropriate solution, because there are no steps on the way that could be reinforced on a reward basis (Deci & Ryan, 2000). Therefore, it is necessary to understand, what the "right" type of motivation looks like.

3.4 Schools and Mindset

Another issue in current education systems is what is reinforced in children's learning process. With the main focus being on grades and performance, kids learn that the results of their actions are valued more than the path to achieving them. In her research on students' performance in school, Dweck (2008) found that e.g. encouragement for persevering and constructive feedback on their strategies had a profoundly helpful impact on their attitude towards learning. She coined the term "growth mindset" for this and showed that it resulted in better overall performance, not only inside the classroom but also in achievements outside of school. These children would seek out challenging problems, welcome constructive feedback as a way to improve and were more open to creative tasks, where the journey counted more than the result. When considering this in connection to the SDT (Ryan & Deci, 2002), it seems obvious that in the growth-enabling condition, praise was reinforcing autonomy and competence, whereas in the fixed-condition the reinforcement was stifling both psychological needs and thereby creating a de-motivating dependency on external rewards.

4 Effects of Motivation on Creativity

How creative people are, depends on three factors (Collins & Amabile, 1999): The strength of task motivation a person brings, how well they are equipped with domain relevant skills and how well creativity relevant processes and work styles can be applied. The factor of task motivation aspect is also described as how actively a person is engaged with the challenges that are to be solved creatively. This is the bridge to SDT. The higher the degree of conviction concerning a task, the higher is the resulting autonomous motivation. Collins & Amabile discriminate between synergistic extrinsic motivators and non-synergistic extrinsic motivators, where Ryan and Deci (Ryan & Deci, 2002) talk about autonomous extrinsic motivation and controlled extrinsic motivation, respectively.

If the creative work is performed in order to achieve extrinsic goals and rewards hinge on external evaluation, people seem to be less courageous to leave the beaten path (Collins & Amabile, 1999). Apparently, controlled motivators entice people to go for the tried and proven answers. They stick to the conventional corridor of ideas, not wanting to risk unsuccessful outcomes. This corresponds strongly to the effects of a fixed mindset (Dweck, 2008). On the other hand, autonomously motivated people are reported to enjoy the exploration of a challenge more (Collins & Amabile, 1999). Their results are considered more original, more diverse, they persevere longer in trying to solve a challenge and report higher levels of fulfillment after the task.

When looking at the foundations of SDT, the positive consequences of satisfying the three basic psychological needs on creative work seem very obvious. When being allowed to autonomously choose a challenge or a task, when experiencing an environment that is supportive of growth, learning and self-efficacy and being in a context that fosters relatedness, this leads to high levels of engagement. People will pick challenges that they perceive as matching their domain skills and feel safe enough to explore and innovate without fear of some kind of retribution for failure. And when there are hurdles to overcome,

their sense of purpose will spur them on; they might even view them as an encouragement to try harder and seek further.

5 Effects of Creativity on Motivation

5.1 Creativity Principles Boost Motivation

The link between creativity and deferring judgment is not new. Though, when Alex Osborn came up with the concept of brainstorming in the first half of the last century, one of the most radical elements were his principles for idea-finding (Osborn, 1963). Of these, "defer judgment" has had the broadest and deepest impact on the world of innovation, I believe: It fundamentally influences the motivational setting in a group of people generating ideas. It does so in three ways, as it has a positive impact on feeding all three universal psychological needs for relatedness, competence, and autonomy (see below). Additionally, by deferring judgment, the focus stays on the creative act itself, enhancing the task-orientation (Collins & Amabile, 1999), which is a characteristic of intrinsic motivation. Providing a judgment-free space, prevents shifting the attention to the premonition of the ideas and ultimately the idea giver being evaluated or even judged in the process.

5.2 Deferring Judgment Leads to Need Satisfaction

Deferring judgment is healthy for human interactions, as it fosters acceptance and appreciation, thus supporting relatedness. Also, the products of the process, the ideas, are not berated and hence the accomplishment not belittled. This helps in providing ideators with a sense of efficacy, or in other words, competence. And finally, the ideation process is not swayed in its flow by criteria, which might or might not be appropriate for generating the best possible solution. This means the people involved in the creative process are enabled to pursue their creative thoughts on their own accord, following their associations and fluency on a self-determined basis.

5.3 Generating Ideas is Invigorating

Also, when people have the space to be creative, they experience a high amount of self-efficacy. They are pursuing challenges on their own accord, and they shape their world. Either in a group of like-minded people, or driven by a strong sense of purpose, or both. And coming up with ideas and solutions for pressing problems, provides us with a sense of being successful and fights feelings of learned helplessness (Seligmann, 2002), which might be caused by the multiple crises humanity is currently facing. Thus, being creative strengthens resilience against demotivating and even depression-inducing occurrences in our world.

6 Implications for People and Organizations

6.1 Leaders can Support Autonomous Motivation of Teams

When we talk about strengthening the innovative power of companies, the first thing we must think about is strengthening the people in these systems. Not only physically but also mentally. The best way to do this is to create an environment that is conducive to motivation. In the "golden" days of Management 1.0, when the metaphorical stick was still seen as a tried and tested means of spurring on the hamsters in the wheel, it was very modern if you not only had the said stick but also carrots in your repertoire. Unfortunately, some questionable practices of how organizations should deal with people have survived from this time. So, if the carrot and the stick are out, how can leaders ensure that their teams are well motivated?

First of all, it is important that they are even aware that they are responsible for enabling a sustainable type of motivation, i.e. autonomous motivation, as it is the only one suitable for innovative work.

6.1.1 Provide Autonomy in Deciding "How"

People feel the need to make their own decisions about how to work. This clashes with detailed specifications about how they should do things, with strict rules and strong hierarchical organizations. Leaders will be more successful if they do well in translating their vision into their organization. If everyone is clear about where the journey is headed, they are better oriented to apply their creative abilities to solving complex challenges successfully. Employees who are included by their superiors, i.e. who are granted and trusted with autonomy, are not only happier at work, but also have a higher autonomous motivation.

6.1.2 Let Competence Grow through its Application

Providing a space for growth and learning, enabling people to contribute according to their strengths and letting them experience efficacy satisfies their need for competence. These are some of the features that describe a growth mindset (Dweck, 2008). To strengthen this attitude in people, it helps to increase task orientation by responding positively to their approach and effort, in contrast to their talent and result. One way to do this is to provide informative feedback, intended to help the recipient improve their work and enhance their output. As this type of feedback furthers their competence, it increases motivation. This is especially true concerning feedback on ideas and innovation work, as usually people are more vested in their creative output.

The flipside is, that any type of reward that is based on the result, or if a controlling evaluation is to be expected, this can and will in the long run thwart motivation, as it is perceived as coercive. It lets people focus too much on factors outside the task and undermines the degree of conviction for a task. This is true even for tasks that were originally motivated intrinsically or autonomously. People are smart and efficient: If a certain reward is achievable for a specific type of behavior, they will start looking for ways to play the system. This distracts them from the creative task at hand and makes them drift towards the conventional response, aiming for an easy reward.

6.1.3 Create Teams by Supporting Relatedness

To thrive, humans need relationships. They need to feel connected to other people either by social interactions or by pursuing the same vision and believing in the same values. A well-established way of supporting this is by creating psychologically safe environments (Edmondson, 2019). Psychological safety is defined as the belief that a situation is safe for interpersonal risk taking. This means people can show up as a human, be vulnerable and admit questions and mistakes without fear of being punished explicitly or implicitly. And it means they can safely offer up their ideas and creative thoughts. Acting according to the principle of deferring judgment contributes majorly to this. Edmonton suggests that to foster a psychologically safe setting, leaders should lead by example, i.e., ask many questions and admit failures. It also means they should model handling complexity and tolerating ambiguity. In psychologically safe teams, members share a purpose, which gives them a common orientation in uncertain times. Diverse members of the team contribute somewhat similar amounts in conversations, and all share a growth mindset, especially when it comes to providing feedback and learning from mistakes. Strong and constructive communication in such teams supports that everybody feels responsible for absorbing and considering new insights and evolving answers, i.e., emergent practices.

Psychological safety is a prerequisite for creative work: If people don't dare make mistakes, they can't explore the full range of a situation's innovative potential because they're always trying to play it safe. Even in simple contexts, it can be dangerous to focus too much on avoiding risks, as it can cause being unaware of changing situational conditions. In the worst case, this can lead to nasty surprises when unexpectedly ending up in complex environments just because someone missed the cues. And in such complex contexts,

people depend on emergent practices that result from probing, sensing, and responding according to the observed patterns (Snowden & Boone, 2007). They must be agile and creative. Therefore, knee-jerk error avoidance strategies and problem cover-up maneuvers are downright dangerous, no matter how difficult it is for people to endure uncertainty. The former artificially narrow the solution space, the latter lead to false positive results on which resources are then wasted.

7 **One Tool to Satisfy them all**

In my work as an innovation psychologist, I support teams in developing a more innovation friendly culture and I support teams as an agile coach. In both spheres I have come to apply a tool that was inspired by Marci Segal's *angel's advocate* (Segal, 2001). I have developed it into the idea angel, a creativity helper that supports creative behavior, innovation culture and the development of an agile mindset.

7.1 Meet the Idea Angel

The main strength of idea angels is saying "yes" to ideas and people! They are very open-minded and nonjudgmental, welcome new things and growth—really helpful for emergence. I have developed six suggestions for thinking and behaving like an idea angel, that can be tied to the picture you see below (see figure 2):

- 1. Let the halo remind you to approach ideas from an innocent and unbiased perspective: Defer judgment. Develop an awareness for the fact that we usually have a dominant perspective shaped by our experiences, which often lets us jump to conclusions. It's always easier to address concerns later than resurrecting an idea that has been killed by prejudice. Practice unseeing these preconceptions, changing that perspective, playing with it.
- 2. The smile of the idea angel tells you to be friendly to the idea-giver. No matter what: Make sure they are safe and feel that their contribution is valued, and that creativity is welcome. And that it is appreciated that they dared to contribute. Provide a space of psychological safety, that allows for questions, ideas, and humor.
- 3. So, what if idea is rotten? Then it helps to phrase concerns as creativity questions, i.e., challenges. Beware that, if you plain-old criticize an idea, this will feel like a dead-end to the your brain and that of the idea-giver. On the other hand, if you ask a problem-solving question our brain will go on an idea-hunting-mission. Next time, instead of dismissing an idea as "too expensive", try strengthening it by asking "How can we raise money for that?". That will give the idea wings.
- 4. Idea angels have the eyes of a gold digger: They search for the good stuff in an idea. Try to actively uncover benefits, positives, and hidden gems. This aspect is a bit of a self-fulfilling prophecy: The better you get at looking, the more you will find.
- 5. The light of the idea angel symbolizes the upside of enhancing the gold nuggets and highlighting them, so that others can see them, too. This can mean amplifying quieter ideas as well as making sure that enough attention goes to the positive. Be generous in your stance towards others' ideas and your own, try to increase their advantages, put energy into their helpful aspects. Our western culture tends to be quite problem-oriented, and before we know it, a valuable idea is flogged to death. By shining a light on the strong parts of an idea, we can motivate ourselves and others to invest energy into improving it and turning it into a viable solution.
- 6. The thread represents the "yes, and" approach of building on ideas. It's a collaborative attitude towards other idea-givers and a sustainable approach to one's own ideas, reducing waste. And it will put you on the upward spiral. Remember, that no valuable solution was ever thought up in the blink of an eye. It always takes several ideas and improvements to handle complex problems. That's why in the agile

world there is the practice of inspect and adapt: Ideas are always made stronger if you build on them and cultivate them.



Figure 2: Six suggestions for being an idea angel. The graphic is available for free download (Innoviva, 2022)

In applying the idea angel in workshops, team buildings and organizational development processes, I found that it helps satisfy all three basic psychological needs.

7.1.1 Competence

The idea angel supports a growth mindset – which is beneficial for fulfilling the need for competence. By focusing on the strong points of ideas and explicitly seeking to improve ideas, it encourages people to try new things and to leave their comfort zone. The psychological safety provided by protecting idea-givers creates a climate for development and learning.

7.1.2 Relatedness

Relatedness is also strengthened by the idea angel, as it encourages people handle each other's ideas with care. The idea angel embodies respect and appreciation towards others, their views, and ideas. This supports trusting relationships. The idea angel proposes to collaborate for a common goal and enables more joint successes in problem solving.

7.1.3 Autonomy

With its non-judgmental attitude, it supports autonomy by giving people a chance to listen to their own thoughts. This is especially helpful for people who generate their ideas by formulating them (aka "How should I know what I think before I hear what I say?!"). When phrasing concerns as challenges, it doesn't take the control away from the idea-giver, but rather keeps them in the driver's seat, while providing support for their idea.

8 Invitation to Action

In conclusion, autonomous motivation and creativity fuel one another. Hence, it doesn't really matter where we start to enable people to solve the complex and pressing problems of our times, as long as we start. This could be by creating environments that better satisfy our universal psychological needs or by strengthening innovation culture in our organizational systems or by teaching decision makers in power, why it is paramount to invest in the latter and the former.

I shared my tool of the idea angel with you to provide you with a springboard. Use and share it widely if you please. If you adapt it, it would be wonderful if you could let me know. I am also really keen on hearing about your experience with it. I wholeheartedly invite you to think and act as idea angels.

9 Publisher's Note

AIJR remains neutral with regard to jurisdictional claims in published institutional affiliations.

How to Cite

Maren Baermann (2023). Motivating Creativity - Creating Motivation. *AIJR Proceedings*, 120-129. https://doi.org/10.21467/proceedings.154.14

References

Collins, M. A., & Amabile, T. M. (1999). Motivation and creativity. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 297–312). Cambridge University Press.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01.

Dweck, C. S. (2008). Mindset. Ballantine Books.

Edmondson, A. C. (2019). The fearless organization. John Wiley & Sons.

Higher-Order Thinking. (2022, October 15). In Wikipedia. https://en.wikipedia.org/wiki/Higher-order_thinking)

Innoviva (2022, October 4). IdeenEngel zum Herunterladen. https://www.innoviva-consulting.de/ideenengel-zum-herunterladen/

Osborn, A. F. (1963). Applied imagination: Principles and procedures of creative thinking (3rd ed.). Charles Scribner's Sons.

Pink, D. H. (2011). Drive. Canongate Books.

Ryan, R. M., & Deci, E. L. (2002). Overview of Self-Determination Theory: An Organismic Dialectical Perspective. In E. L. Deci, & M. R. Ryan (Eds.), *Handbook of Self-Determination Research* (pp. 3-33). University of Rochester Press.

Segal, Marci (2001) Creativity and Personality Type: tools for understanding and inspiring the many voices of creativity. Telos.

Seligman, M. E. P. (2002). Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment. Nicholas Brealey.

Snowden, D.J. & Boone, M.E. (2007). A Leader's Framework for Decision Making. *Harvard Business Review 85*(11):68-76, 149. https://hbr.org/2007/11/a-leaders-framework-for-decision-making

Volatility, uncertainty, complexity, and ambiguity. (2022, October 9). In Wikipedia. https://en.wikipedia.org/wiki/Volatility,_uncertainty,_complexity_and_ambiguity