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WHEN OUR BRAIN LEARNS BEST

The neuroscience perspective on conditions enhancing the learning process in a group

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WHAT LEARNING MEANS?

The way I understand it, learning happens when we create new neuronal connections in our brain, we add and modify concepts that already exist in our minds. It all happens through adding new pieces of information, analysing them, connecting elements differently than before, questioning the status quo in our minds and belief systems, and doing some synthesis.

All these processes are called **THINKING**, and as much as what I just described seems to be strictly connected to our “thinking brain”, to switch on the learning mode, we need to be open to receiving those new ideas/pieces of information. It also requires at least moderate openness to question the knowledge we already possess and examine what we already believe is true about the world in general, people, topics, and subjects discussed during the learning process.

This brings us to the emotional aspect of learning because openness to something and someone is a matter of emotional state of being, at least feeling safe and calm in the environment I’m going to learn, but also maybe feeling curious about what is yet to come.

Without feeling safe, calm and curious, our brain will not work at its best, and the learning process will not be effective. In my opinion, learning requires very close cooperation between our brain and heart and the nervous system in general, our body, emotions and mind.

THE INFLUENCE OF EMOTIONAL SAFETY ON THE LEARNING PROCESS CREATED FOR A GROUP

HeartMath Institute (www.heartmath.org) has been researching the topic of the neuronal connection between our heart and brain for decades now. What they claim is this:

“The heart and brain maintain a continuous two-way dialogue, each influencing the other’s functioning. The signals the heart sends to the brain can influence perception, emotional

processing and higher cognitive functions. This system and circuitry are viewed by neuroradiology researchers as a “heart brain.”¹

It appears that for a long time, we underestimated the influence of our heart on our thinking brain. This is more of a bottom-up approach where we can create an excellent inner (in our body) learning environment by influencing our heart rhythm to create a sine-wavelike pattern, which affects our brain wavelengths and our mind-emotions and nervous systems start operating in sync.

This heart rhythm pattern appears when we experience positive emotions such as gratitude, appreciation, kindness, love, compassion or curiosity about something or someone. Feeling those emotions enhances our openness to receive new information, play with it, and learn. We tend to remember that children learn through play and joy, in a relaxed way, and we sometimes maybe forget that adults also need that for their learning and these are the reasons why – we absorb and think better when we are relaxed and in a good mood .

How do I translate this into a training room?



We not only need good “reasons” to learn, which may even not be enough if we are not emotionally aligned with our goal. I need to want to know, and I need to be in a good state while learning (which means that if I’m distracted, under time pressure, under someone’s pressure). That is why having some joyful energisers that make people laugh and relax is always a good idea, even if our “rational mind” might want to skip that part for time efficiency.

For time and learning efficiency, I say it is wiser to take the time for those activities. It also makes sense to evoke those positive feelings at the beginning of the training, e.g., asking people what they are most curious about Today? Why did they choose this training? How acquiring those new skills will make them feel? Questions we decide to ask our participants can make all the difference to help them open up to learning.

Remember, it doesn’t matter if you know all their answers, so it is not about you hearing them out, but about the feeling it in their body. You can look for opportunities like that during the whole training. I just gave here some examples from the beginning to give you an idea.

¹ “The secret language of the Heart” by Barry Goldstein

HOW DOES A FIGHT OR FLIGHT RESPONSE LOOK LIKE DURING TRAINING?

However, it doesn't take much to desynchronise this state of heart-brain synchronicity. Any stress, feeling of anxiety, frustration, uncertainty changes our heartbeat as we know (physiological stress response is kicking in, the heart beats faster, and the flight or fight response is activated).

It may manifest as (please note these are only a few examples and they do not always mean being activated/triggered):

- ▶ being dismissive of others ideas,
- ▶ being more defensive when speaking up,
- ▶ negative attitude towards the topic of the training/trainer or other participants,
- ▶ questioning a particular activity or the knowledge that is being presented
- ▶ shutting down during a group/pair work
- ▶ sitting still and silent
- ▶ "it's not for me" attitude
- ▶ "I am who I am, and there is no sense in changing anything."
- ▶ or through feelings – frustration, anxiety, impatience.

That is why **SAFETY** comes first when it comes to learning (and not only this). It may sound like an exaggerated statement, but I believe we underestimate the role of our nervous system in the learning process and the fact that it is very strongly hardwired to keep us **SAFE**.

When we are in a training/ workshop situation – meaning learning in a group, the aspect of feeling safe becomes even more crucial. We have our cultural and social norms, which more or less prevent us from being physically hurt. There is still the underestimated aspect of our psychological safety. When we enter a room full of people, our amygdala (a part of our limbic system), nicely called a "smoke detector" by Bessel Van Der Kolk, the author of "The body keeps the score", is scanning our environment and for danger, which in a social context will mean, e.g.:

- ▶ Who can invade my private space?
- ▶ Who looks nice and friendly?
- ▶ Will someone criticise me?
- ▶ Will these people accept me?
- ▶ Will they value my knowledge and experience?

Mind you, all these questions are asked subconsciously. You may not even notice it is happening. Each of us has our own set of criteria to use for scanning the environment, and they were created through our life experiences. In other words, it means each one of us has the default setting of the smoke detector. What makes you unsafe doesn't have to have the same effect on me and vice versa.

Our smoke detector is especially activated in a new environment, and then it learns through experience how vigilant it needs to be in this particular context or with these specific people. To give you an example, If I experience being criticised for expressing unpopular opinions, at first, I will be cautious how I phrase and express myself, and I will be very observant about people's reactions. If I'm not criticised, I'll learn that it is ok to speak my mind here. I feel much safer, though, If I'll experience this sense of acceptance at least a few times before I lower my guard. Our smoke detector is learning.

David Rock, the author of **"Your brain at work"** and **"Quiet Leadership"**, studied many pieces of research to understand the domains that influence our social behaviour and what we may perceive as a threat in a social context. The results of his explorations are a model called SCARF, which is based on the foundation that psychological safety is as essential as physical. His work reminds us that the social aspect of life holds as much growth potential as for threats. What else can we perceive as a potential danger to us? According to model SCARF, we can look for hints in those five domains:

STATUS – the way others perceive us, the importance in relation to others. I translate it into questions like:

- ▶ Will they acknowledge the expertise and experience I have gained so far?
- ▶ Will they treat me with respect?
- ▶ Will they notice the value I bring to the group as an individual?

CERTAINTY – the ability to predict the future which can mean questions like:

- ▶ Do I have all the information to know or predict what will happen next?
- ▶ How well do I know these people to predict their behaviours or reactions?

AUTONOMY – the ability to decide for me and have an influence on my situation or environment. It means wondering about:

- ▶ Will I have a choice?
- ▶ Can I decide whether I do something or not?

RELATEDNESS – the feeling of belonging, of being part of the group which means thinking whether:

- ▶ they will accept me as a person;
- ▶ they will get me and my opinions;
- ▶ they will like me;
- ▶ I will fit in;
- ▶ I can be me around those people.

FAIRNESS – the feeling of being treated fairly and transparently according to rules that I'm aware of. Here our subconscious filters may ask:

- ▶ What are the rules we follow here? Are they transparent and known to everyone?
- ▶ What is expected from me? Is it clearly stated?

According to David Rock, we don't respond to all these aspects at once. Each of us has our filters, and some domains may be more triggering for us than others, or we will respond differently depending on the situations or people we are with. You can look at those categories in two ways. Status may be vital for you – how other people value you, so your smoking detector may be over vigilant in this area, perceiving a situation as undermining your position, even though nobody had the intention to do it. Secondly, when somebody intentionally wants to jeopardise your status, your reaction will be stronger than in areas you are not that worried about (e.g. you have an excellent ability to deal with the unknown, so you don't get triggered by lack of information). It is good to know about ourselves as trainers – what areas we are more sensitive to when it comes to feeling safe, and also to bear in mind that this process of scanning for safety is happening for each participant.

If we bring the online reality perspective to the table, several new aspects can trigger our feeling of unsafety. In slow motion, it would look like this: we sit down in front of our computer, we enter the virtual room, we scan the gallery of squares, and we assess how many people are already there, how many are visible...do they look kind and harmless? Do they smile, or do they seem bored already? Will I want to work with them? Can I cook at the same time?

One way, or another, it's happening for both sides trainers and participants:



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- ▶ When the cameras are off, we don't see who is learning with us. Are they friendly? Maybe unpleasant? Maybe judgy? How do we get to know that?

- ▶ We don't know how they are reacting to what I say? Are they laughing? Listening? Agreeing with me? What is going on there?
- ▶ We don't see people in their entire posture – only a part of them, so we don't know what is going on with them. There is this level of uncertainty, e.g. maybe they are texting their friends and criticising me;
- ▶ We know less about what is going on in the group;
- ▶ There is more space for conversations between participants – through private chat and their phones
- ▶ -There are lags that may cause us to wait longer for people's reactions to what we said, which can cause some uncertainty and anxiety;
- ▶ You can be recorded. There can be a picture taken without you even knowing it
- ▶ and more....

It may seem overwhelming to consider that it is actually all happening right there when we would like people to focus on acquiring new knowledge. However, I believe it is essential to be aware of that and understand that it is necessary to address safety when creating a learning environment for your participants. It is crucial to consider the influence of participants' emotional safety on the group learning process because, as adults, we often think we are more reason-driven than we are. That, in turn, leads us to overlook our insecurities and the things that make us feel unsafe.

I encourage trainers to spend a reasonable amount of time answering those questions:

STATUS – how can I, during the training, make people feel valued? How can I show them that I value what they bring during the training? How can I help them use what they already know, their experience and expertise? Is there anything I can do before the training?

CERTAINTY – What information and when do I need to provide them to have a safe framework to work? What do they need to know about other participants?

AUTONOMY – How can I create the training to give people many opportunities to choose and decide how they want to work? Where can I offer options?

RELATEDNESS – How can I create space for people to know each other and to make connections? What kind

of rules do we need to establish for people to feel welcomed in the group?

FAIRNESS – What do I expect from others? What do I need to communicate clearly? How will I make sure people will have a sense of being treated fairly?

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Read more here:

- ▶ Neuroleadership in 2009 by Dr. Al H. Ringleb and David Rock
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