What is the importance of understanding the Automated Nervous System, when working as a Systematic Life Coach?

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Personal Motivation

A few months ago I experienced something completely new. My body went into a shut down mode, to protect me from a trauma or emotions I couldn't handle, in a situation, where I had to function. A period of 6 weeks. My body was constantly under stress and at some point I emotionally shut down.

I couldn't figure out what had happened with me and I was frustrated. Through my coaching seminar and through my personal coach I learned the theory behind what had had happened. My automated nervous system wanted to protect me and because I didn't take care of myself I ended up being in a state of Hypo-arousal. Getting out of there and back into my window of tolerance was hard work. I am a quite cognitive person and understanding the theory behind what had happened helped me overcome this obstacle. I want to share this new knowledge in a scientific way, so that coaches or individuals have a better understanding of what can happen or has happened with your body and mind.

Introduction

The nervous system plays a huge role in our every day lives, because it is the body's command center. Alone the fact that it plays such a big role in shaping daily life, makes this topic essential enough to explore when it comes to Systematic Life Coaching. The nervous system helps humans feel, think and move (Cleveland Clinic, 2023). Through understanding how the nervous system works, we can further understand how coherence is formed between our heads and hearts.

What is the Nervous System and how does it work?

As visible in figure 1, the nervous system is made up of three components: the brain, spinal chord and nerves. Through electrical signals

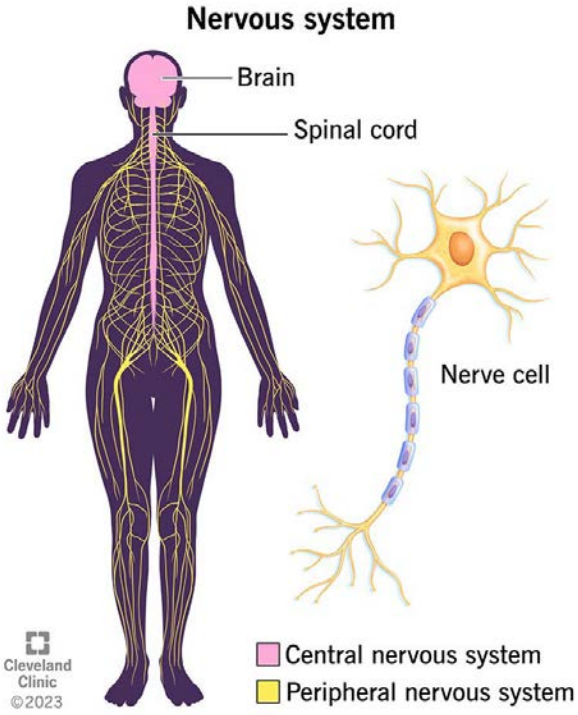

Figure 1: An image showing the components of the nervous system (1)

the body sends messages, which travel among the brain to everywhere else in the body. Through these messages humans are capable to move and feel their own body. The bodies senses and nerves transport the information to

the brain. There are three main types of Neurons, which make this process possible:

- Motor neurones - transport signals from the brain and spinal chord to human muscle. These are responsible for 'simple' actions such as breathing and sweating.
- Sensory neurones - bring information from the senses to the brain.
- Interneurons - are responsible for communicating between the motor and sensory neurones.

The nervous system is aware of what happens inside as well as outside of the human body and decides on how you will respond to each situation (Cleveland Clinic, 2023). It is also responsible for more complicated processes such as thoughts and memories (Cleveland Clinic, 2023).

What are the systems?

The nervous system has two main systems, which then subdivide into further systems. Figure 2 clearly shows the systems and their connections:

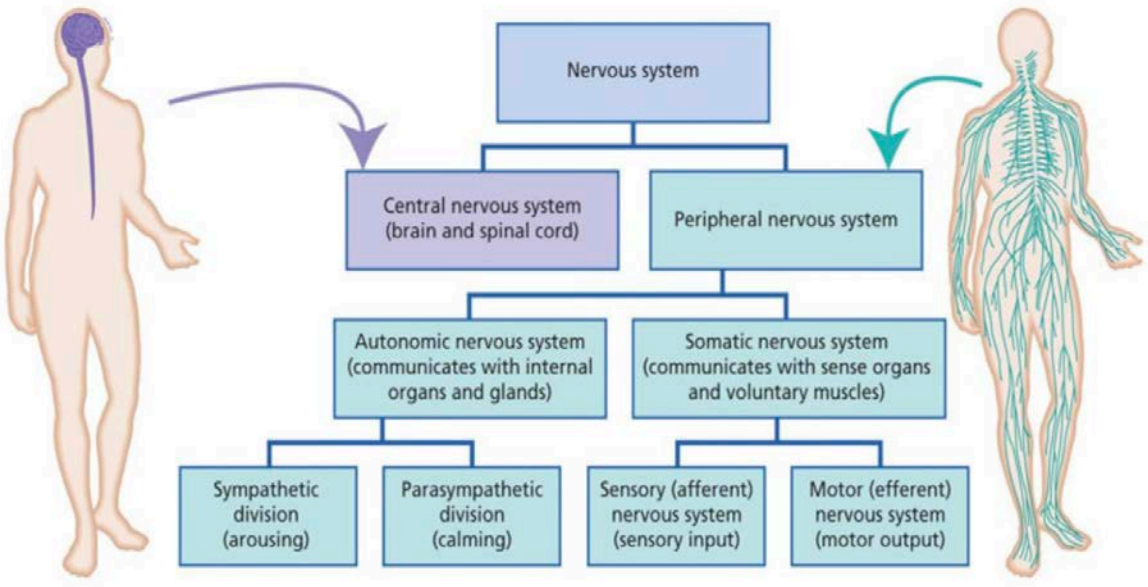

Figure 2: An diagram explains the systems within the nervous system (Belaoucha, 2017)

This paper will focus on the autonomic nervous system: the sympathetic which will be referred to as SNS and parasympathetic system, which will be PSNS.

SNS and PSNS

Simply put the SNS is responsible for a humans fight or flight response, whereas the PSNS is the rest and digest response. In figure 3 below you can see the different bodily responses depending in which mode the body has entered:

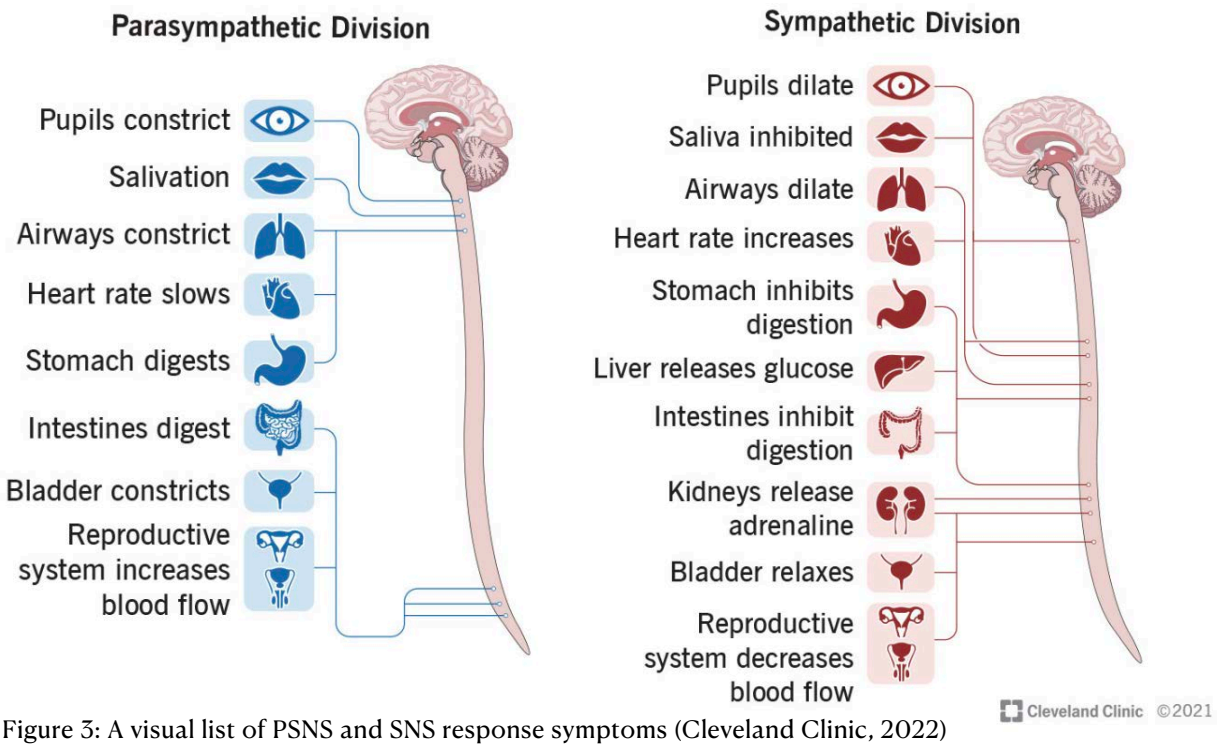

Figure 3: A visual list of PSNS and SNS response symptoms (Cleveland Clinic, 2022)

Identifying these symptoms in a coaching process is helpful by being able to analyse in which state the client is currently in.

Vagus Nerve: This nerve is also known as the self healing nerve. It has so many important properties: it is the longest nerve in the human body and

is the biggest part of the PSNS when putting the right and left vagus nerve together it accounts for 75% of the PSNS (Cleveland Clinic, 2022b) (InKonstellation, 2023). The nerve regulates all organ activities and tries to balance body and psyche. It is a part of the vegetative nervous system and yet it is also the longest brain nerve. It can be stimulated through soft tapping on the sternum (InKonstellation, 2023).

The tapping intervention is a method used in emotion coaching, as a way to release 'bad' energy through fast tapping or to anchor 'good' energy through slow tapping.

Stress

One of the ways the SNS is active is through stress. Why does stress activate the fight or flight response? It is your body's natural response, enabling you to deal with difficult or dangerous situations. After the 'threat' has passed, the PSNS helps calm the body returning to a state of balance (Boynton, 2021). This what should happen in theory and yet a lot of clients who seek a systematic life coach, often are no longer in balance and seek help finding it. Regulating your own nervous system is becoming harder through the constant influx of information humans are confronted with everyday, through poor working conditions, and of course private life. Seven in ten people in America have experienced additional health impacts due to Chronic stress (Bethune, 2022).

When someone experiences chronic stress, the body is in a constant overstimulation of the SNS. This causes a huge domino effect as the SNS is a part of the body's control center. There are physical symptoms where we can identify this: muscle tension, migraines, higher heart rate and blood pressure, weight gain, digestive problems, sleep issue etc. the list goes on

and on (Boynton, 2021). Furthermore chronic stress may cause a dysregulation of the hormones dopamine, serotonin and norepinephrine (Lopez and Williams, 2024).

As a systematic life coach it is important to identify the difference between chronic and acute stress. An example for acute stress: being nervous about a presentation the Client is about to give at work. Chronic stress: poor sleep habits. Of course as a systematic life coach it isn't always as easy as that. For example it may be that at first sight it is only acute stress, but when taking a closer look, it turns out to be a pattern of behaviour, which cause reoccurring stress.

Window of Tolerance, Hyper-arousal and Hypo-arousal

A window of tolerance is a model created to conceptualise the capacity to feel intense emotions. In figure 4 below you can see that the window of tolerance is placed between the hyper-arousal and the hypo-arousal. The window of tolerance is each individual's capacity to deal with stressors/threats. As described in the model, when an individual is in the green area the Parasympathetic mode: Ventral Vagal, also known as social engagement and safety state is activated both the SNS and the PSNS are active and are working together in harmony. Above the

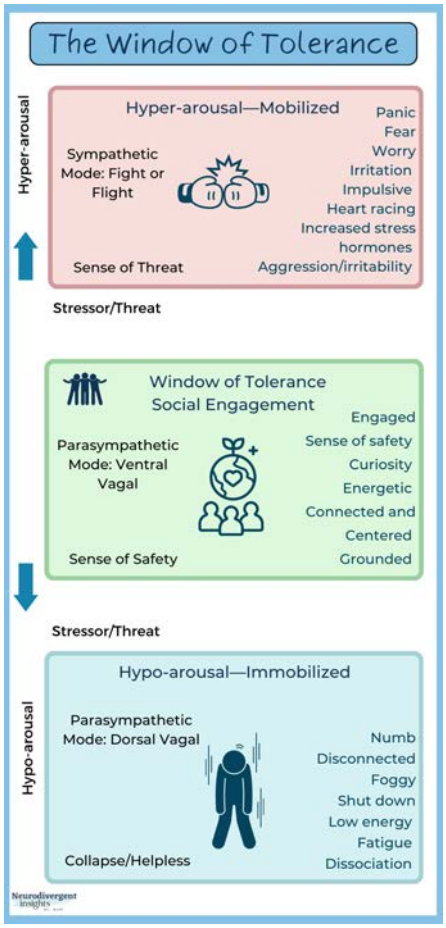

Figure 4: The Window of Tolerance (Neff, n.d.)

tolerance window is the hyper-arousal, which is also known as the Sympathetic Mode (SNS is activated). Below the window of tolerance is a parasynthetic mode under the name Dorsal Vagal - immobilisation and collapse, also activated through the PSNS (Posey, 2023).

When we have more stress than we can handle, the system because dysregulated, which will lead to either a Hyper or Hypo-arousal. Figure 4 also lists some symptoms, through which one can identify in which zone ones automated nervous system has slipped.

Below in figure 5 it is visualised that even in the window of tolerance each individual experiences 'waves'.

Figure 5: Visualisation of the window of tolerance (DeMarco, 2024)

What is the purpose of Hypo and Hyper-arousal?

Hypo-arousal: On an evolutionary spectrum the purpose was to 'play dead', when there was danger such as a dangerous animal. Another reason is to protect us from pain and trauma that we can not handle (Neff, n.d.).

Hyper-arousal: is the humans flight or fight mode. In both scenarios a lot of energy is stored up, which is why indigenous tribes and all animals literally shake the energy off when the danger is over. This is culturally done through singing, dancing and drumming. If you are a coach and have a client who is hyper-aroused, asked them if they have released the ball of energy from the stress they were 'fighting'.

Hyper-arousal is a lot more common through the constant stressors that are nearly unavoidable in todays society. Not only is society faced with such an influx of stressor, but is also faced with the fact that we don't learn how to regulate or nervous system.

The window of tolerance is a great tool to use in a systematic life coach setting, not only to explain clients what is happening, but also to offer them a visual model of what is happening in their nervous system. This visualisation offers clients a great opportunity to take a lens and to look closer at bodily reactions and the aftereffects. Paying attention to what stress does to an individual and how to regulate stress is a skill, where clients will seek guidance from systematic life coaches and other skilled professionals in this field.

What Role does the Limbic System play in the Nervous System?

What is the limbic system?

The limbic system is a part of our unconscious mind and takes over a big role in regulating human emotion, behaviour, memory and motivation (Cleveland Clinic, 2024). It is located in our brain. It saves all emotional information, which one comes across with. The bigger the emotional experience the more it gets anchored in the limbic system. These memories are both conscious and subconscious and can be recalled instantly (InKonstellation, 2023).

How does the limbic system relate to the nervous system?

The limbic system is also know as the emotional nervous system, because it connects ones physical with emotional wellbeing. Furthermore, the limbic system manages the automated nervous system (Cleveland Clinic, 2024).

The limbic system has four main structures:

- Hypothalamus: is responsible for producing hormones, which help humans sleep and manages needs such as hunger, heart rate and body temperature.
- Amygdala: helps humans experience and memories emotions and feelings, as well as the ability to interpret social scenarios.
- Thalamus: stores all sensory information.
- Hippocampus: responsible for your ability to form new memories.

There are discussions among the scientific community whether other components are also parts of the limbic system. These discussions include: the reward processing center, imagining how someone else is feeling and how you form your memories (Cleveland Clinic, 2024). The limbic system is also responsible for alerting the automated system when stress occurs.

The Nervous System as our Subconscious Mind

What is the subconscious mind? The subconscious are automated actions and reactions, for which focussed attention is not needed. It is the secondary system. First is the conscious mind, then the subconscious mind and finally the unconscious. The secondary system manages everything in daily life one is used to doing, but it also acts as a barrier, in order to stop us from becoming overwhelmed. A quick example to visualise this: one wears clothes everyday and even though some fabrics feel nicer than others, we don't constantly feel the sensations of fabric on our skins. The brain only has a certain amount of capacity and through this barrier there is more space for the brain to take on new sensory experiences and skills (Society, 2018).

The subconscious mind and the nervous system are automated reactions. The automated nervous system is a part of our subconscious mind, as it takes over a lot of the automated reactions in the human body. However

the nervous system is not the only part of the subconscious. The limbic system, the subconscious processing of information, emotional responses and gut feelings are also a part of our subconscious mind.

One way to let the subconscious mind 'speak' is through the Myostatik test. This is a systematic life coaching tool, which aims to recognise what the subconscious thinks or in other words to test stressors in the body. For this test the hand is used, as mental stress ist most quickly seen through hand muscles (InKonstellation, 2023). This is a whole method by itself, which enables a systematic life coach to identify the stressors of the client. This may be a situation, a belief in their value system or even specific words, which have a stressing emotional energy. Through this method a coach can integrate the automated nervous system into the coaching process. It enables the coach to bring information from the subconscious into the conscious mind.

Conclusion

By understanding how the automated nervous system works, systematic life coaches, have the ability to help their clients to regulate their emotions. Understanding the theory, the symptoms and having visual tools will not only guide the client, but is also a small toolbox for a coach. The following functions are all related to the nervous system: regulation of vital functions, stress management, emotional regulation, cognitive function, physical performance and sleep quality. Through understanding the automated nervous system a coach can guide their client into proactively managing their health better.

This paper has explored the automated nervous system and other parts that belong to it, such as the limbic system. The importance of this topic for

systematic life coaches is mainly to understand the importance of the theory, the connections and the symptoms, in order to guide a client better through what they wish to change. It enables coaches to take different approaches to stress. Coaches already use a lot of methods that integrate the nervous system such as the tapping intervention and the myostatik test.

It turns out this paper isn't only a focus on how the automated nervous system is to coaching. After writing this paper my statement is now the following: understanding and learning about the automated nervous system is important for you.

If you find yourself outside your window of tolerance, don't know how to return and would like to change that, then I am sure you can find a professional wether coach or psychologist who will help you with this.

If you want to give it a try yourself I can not give you better advice but try to identify your bodies signals, to practice just feeling what your body is trying to tell you.

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