



Hyporesponse
- the hidden challenge in
coping with stress

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¹ Using the unhyphenated words *hyporesponse* and *hyperresponse* builds on the Danish spelling tradition

Preface

Early on when I studied relaxation therapy in 1975-1978 I was introduced to the terms hypo- and hyperresponse which in turn got exported into Bodydynamic Analysis as core concepts of the theory.²

These concepts have proven to be very significant in helping me understand how I contain patterns of giving up (hyporesponse), of control (hyperresponse), and of resources readily available. The concepts have helped me personally to grasp the dynamics between the three aspects in me - and how closely they work together.

During my personal as well as my professional development it has become increasingly clear to me what a radical strategy giving up really is. Because it is often invisible. Because it does not demand attention.

Today my work revolves very much around bringing this invisible strategy into awareness. Especially in relation to high intensity aspects of life: Stress, trauma as well as experiences of expanded consciousness.

How do we integrate our hyporesponsive parts into our understanding of ourselves and our self-regulation while functioning under pressure - maybe even thriving at a fast pace?

This is the key question to be investigated in this article.

The thoughts I present in this article are based on more than 30 years of professional experience as a teacher and therapist. Through my studies, through my exchange with colleagues and other professionals on an international level, I find my professional experiential knowledge supported and, to further my methodology. This ongoing dialogue continues to offer me new approaches to my work by deepening my understanding and ability to interpret the phenomena I experience on a day-to-day basis.

² Bodydynamic Analysis is a body psychotherapy system developed in Denmark, founded by Lisbeth Marcher. Several people contributed to developing the system: Lisbeth Marcher, Lennart Ollars, Ellen Ollars, Steen Jørgensen, Erik Jarlnæs, Sonja Fich, Marinanne Bentzen, Merete Holm Brantbjerg - and since 1994 Ditte Marcher. (Bentzen, Bernhardt & Isaacs 1997, Fich & Marcher 1997, Jørgensen & Ollars 2001, Brantbjerg 2005, Brantbjerg 2007).

Introduction

For some years now I have specialized in using the method "resource-oriented skill training" (ROST) when working with stress and trauma related issues. Key to this method is the understanding of hypo- and hyperresponse as psychological coping strategies represented in the muscles - and the importance of adapting or "dosing" physical skill training to the exact level of presence that each individual, each body area, each muscle is capable of.³

Hyperresponse corresponds with tightness, tension, control, holding back emotion and psychomotor impulse linked to the muscle in question. Hyporesponse on the other hand corresponds with giving up, withdrawal, loss of energy - and giving up emotions and impulses.

Neutral response corresponds with the individual's free access to emotions and impulses linked to a given muscle.⁴

Hyperresponse or tension - is well known and well documented as stress related. The majority of stress literature highlights stress as an internal state holding too much tension, and as a state in which people need to learn how to relax, how to find inner peace, etc. This approach is understandable given how our ANS (autonomic nervous system) reacts to stress - often displaying prominent sympathetic innervation. We see or experience how stress can manifest itself as trouble sleeping, difficulty finding rest, etc.

This article highlights another more hidden phenomenon in coping with stress - the hyporesponsive strategy.

The areas of the body that have the lowest level of energy to begin with - the skills that are most given up - are those we disconnect from first when pressured - be it externally or internally. One response to pressure can be defending one's self by giving up even more, by growing distant, by losing inner fullness and presence. That way we avoid feeling the pressure or the impulses and activities that go with it. We don't notice when we have reached our limit, and our energy and direction from within are slipping away.⁵

Hyporesponse is particularly challenging when dealing with stress issues, because the areas that have given up don't demand attention in the way that, for instance, tight shoulders would. It is very easy to overlook the body's signals that work by absence - which as a consequence typically reinforces the giving up mechanism. This is a vicious cycle that offers renewed insight to an essential dynamic at work in the phenomenon of burning out.

³ Dosing is a core concept in resource-oriented skill training as a method. The concept is further elaborated in Brantbjerg 2007 and Brantbjerg 2008.

⁴ The concepts of muscle response are developed within the framework of Bodydynamic Analysis. Bentzen, Bernhardt & Isaacs 1997. Muscle response is not equal to muscle tone in a physiotherapeutic sense. Neither to levels of physical training. Muscle response is a measure of presence or fullness in the muscles. The terms hypo- and hyperresponse are formed by Lisbeth Marcher (Ollars (1980), Bentzen, Bernhardt & Isaacs (1997) - with inspiration drawn from among others Lillemor Johnsen's terms hypo- and hypertony (Johnsen 1976).

⁵ The term "energy" in this article is used synonymously with presence and fullness. Energy is difficult, almost impossible to define - and yet in my view it is a phenomenological fact that we are able to physically sense "energy" or levels of presence and fullness in ourselves and in others. It is visible to us if a body is more or less full. You can sense if a handshake is energized or distanced/lacking in energy. Without "energy" a dead and a living body would be identical. The term "energy" in this context does not correspond with physical power, metabolism etc., but with presence, fullness, sensing of life.

Learning how to relax doesn't change this dynamic. To change it takes learning how to tolerate and maintain a level of presence. It takes practicing how to find a level of dosing in an activity that will build presence instead of exhaustion. These are the basic skills that are weakened when in a state impacted by hyporesponse.

In my experience this adds a vital dimension to understanding and resolving stress issues. Improving your ability to cope with stress begins with acceptance of your inner capacity - regardless of size - and with supporting both the need for rest and for building and maintaining a level of energy⁶ and presence.

What is muscle response - including hyporesponse?

Muscle response is the term used in Bodydynamic Analysis to describe levels of muscular fullness and presence.

Bodydynamic Analysis differentiates between 3 types of response - neutral or balanced response, hyporesponse, and hyperresponse, and also between different levels of hypo- and hyperresponse.⁷

A muscle can be characterized by "full" presence corresponding with the muscle's psychomotor function being readily available to a person's consciousness and freedom of choice.⁸

A muscle can be characterized by tension /hyperresponse) corresponding with the psychomotor function being controlled and held back. Free access to use the skill in action is not available for the person, since the choice is impacted by a pattern of control.

Finally a muscle can be characterized by loss of energy, deadness, lack of fullness (hyporesponse) corresponding with a person's access to the psychomotor function being impacted by giving up, distance, loss of energy, or inability to act. A strong hyporesponse means the skill disappears completely - out of reach of conscious choice.

Hypo- and hyperresponse are seen as coping or defence strategies - brought into use when we are confronted with situations or experiences where we can't find a way for our inner experiences and our impulses to be contained in interaction with the social context we are in.

⁶ "Building energy" refers to the muscular effect of working with slow muscle activation and release. Muscle activation generates heat, energy, flow - and when this increased liveliness is not released by expression, movement etc, it stays in our muscles as an increased level of presence or energy.

Both "Building energy" and "Releasing energy" are viewed as physical training principles with various impact depending on the level of hypo- or hyperresponse in the activated muscles. Appendix A illustrates physical training principles and their impact on muscular hypo- and hyperresponse respectively.

⁷ At the School of Body Dynamics, Skolen for Kroppsdynamik, and later within the Bodydynamic system's framework a muscle test has been developed whereby muscle palpation registers the presence of different kinds of muscle response in a person's body. The test differentiates between 4 levels of hypo- and 4 levels of hyperresponse and neutral response. This muscle test today go by the name of BodyMap - and forms the basis for assessment of easily and difficult accessed psychomotor skills in a person and hypothesis about personality development, character structures and trauma in the person's history and present life. (Bernhardt & Isaacs 2006, Jørgensen & Marcher 1998).

⁸ Bodydynamic Analysis has explored the link between specific muscles and psychomotor skills (Brantbjerg & Ollars 2006, Jørgensen & Marcher 1997).

The confrontation between our personal experience and acting impulse and our surroundings' rejection, denial, etc. has to be solved in some way. Muscular giving up or control are possible "solutions" making way for adapting to the context we at a given time must function within. These "solutions" leave us locked in "decisions" expressed as locked patterns.⁹

Hyporesponse as a strategy - and how it differs from hyperresponse

Giving up in muscles literally means losing access to sensory presence and the ability to act. The strategy behind this is me not having to sense a part of me that I am not able to handle in a given context. If, for instance, I am very busy and it has been a while since I have had time to make love to my husband, sensing my inner thighs would lead to sensing my sexuality but also pain, longing, frustration, anger - "impossible". My "solution" could then be increasing my inherent tendency towards hyporesponse in parts of my inner thigh muscles - resulting in my simply not sensing the impulse towards sexual contact. I no longer sense my sexual desire. A solution I share with many under stress. Disconnecting from sexuality then can become an aspect of the locked role I function in if I become too efficient, too quick, having to make it all work, etc.¹⁰

A natural explanation for sexuality disappearing like this is locked states in our ANS¹¹. Above I added a muscular dimension to the disappearance of sexuality - which can be very helpful if you want to reconnect with it once the stress level lowers - or you want to help yourself sensing that your sexuality is still there - even under stress. Supporting presence by building energy in the muscles that gave up is one path back to the potential life energy carried in the muscles.

I personally experienced this dynamic once while leading a teamwork on linking psychomotor skills with gender and sexuality (Brantbjerg & Ollars 2006). It happened at a time where I was under massive external pressure - feeling exhausted at the meetings and with no sex drive at all. Within minutes of physical muscle activation and experimental psychomotor movement I sensed my sensuality and sexuality. Even though it didn't change the fact that I had a hard time making room in my life to express this side of me, it felt important to sense it was still a vibrant part of me.

Hyporesponse is a powerful strategy. It can literally remove options from consciousness, so they are no longer available. If the hyporesponsive strategy is established as part of

⁹ In Bodydynamic Analysis locked patterns are named as character structures. (Bentzen, Bernhardt & Isaacs, 1997, Fich & Marcher, 1997). A character structure equals muscularly to a certain number of muscles (appr.30) being impacted by either hypo- or hyperresponse - all involved in a specific psychomotor developmental phase.

¹⁰ The concept "rolelock" or locked role is inspired by SCT - Systems Centered Therapy. A distinction is made between functional and locked roles. Being in a functional role means that the person can fill out the member role in the present context he/she is in whereas being in a locked role typically is fuelled by old automatic patterns related to a context in the past. (Agazarian 2004)

¹¹ Sexuality is basically a parasympathetic activity. If the ANS is locked in high arousal of the sympathetic branch, which is the case in most of all normal stress states, it will be difficult or impossible to let go. This is the same dynamic making it hard for people to fall asleep or to find rest. A different dynamic also exists - where hyperarousal and building up sexual energy are connected - and where the person is seeking stressreduction through sexual release.

childhood personality development - and if it holds a high degree of giving up - the potential skill connected to the muscles in question may never have become accessible for the individual. This is where hyporesponse differs from hyperresponse. Impulses and feelings that are held back still exist in consciousness. There might not be room in the body for them to unfold - but they are there. Hence hyperresponse demands attention: Held back feelings or impulses in the body are usually noticeable. Tight shoulders, a tight lower back, abdominal tension are all unpleasant and often painful. They draw attention to the fact that something is blocked; the free flow in the body is somehow interrupted. Often this is the kind of sensory input that will let us know that we are in a state of stress, defensive, in locked roles.

Hyporesponse on the other hand will make us disappear. Parts of us become invisible and escape attention. This is a powerful and brilliant strategy for handling what seems impossible for us to cope with on a conscious level.

In the development of "postmodern society" the weight between hypo- and hyperresponse as prominent defense strategies has shifted. Carsten René Jørgensen, clinical psychologist, Ph.D. and teacher at the University of Århus, here supports this view:

"To put it crudely while people in classic modernity suffered a lot from neurotic illnesses with suppressed emotions and needs postmodernity illnesses are much more about identity disorders (Hohl 1989). Further it can be argued that historic changes of modern society and the changes in human condition changed the expression of some of the classic illnesses (such as depression and anxiety). The mature defense mechanism repression is placed at the core of neurotic illnesses. Repression keeps "forbidden" activities, needs and fantasies more or less permanently away from consciousness. In more severe identity disorders repression is replaced with the more primitive defense mechanism splitting where subjectively incompatible identity elements are kept strictly separate from each other and take turns dominating consciousness in the individual." (Jørgensen 2008, p. 21 - own translation)

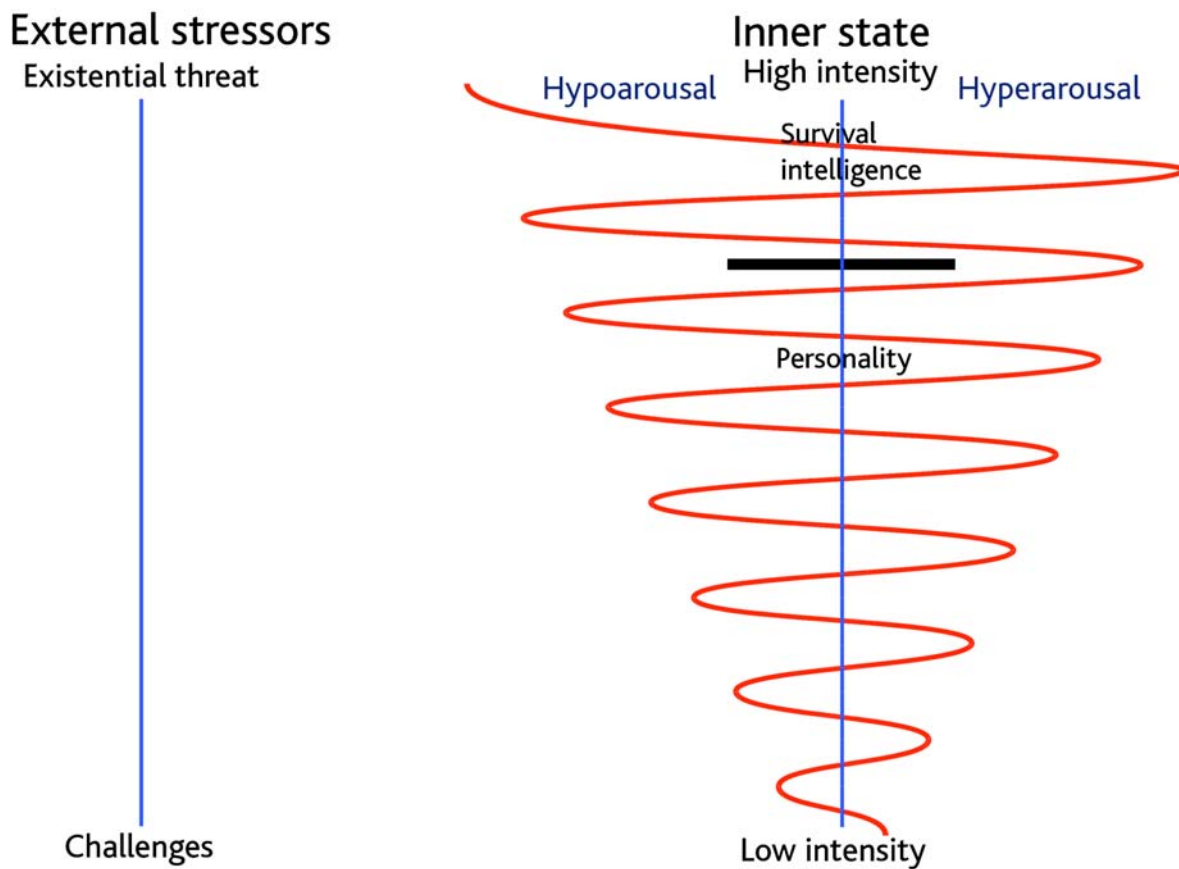
"Neurotic illnesses" in my interpretation corresponds with hyperresponsive states. Prominent hyperresponse in the body is linked to the classic neurotic defense strategies. Prominent hyporesponse on the other hand is linked to states lacking integration in the personality. Individuals with identity disorders, borderline and other similar conditions, in my view and from my experience have prominent muscular hyporesponse. (Bernhardt & Isaacs 2000, Jørgensen & Marcher 1998, Fich & Marcher 1997).

For treatment purposes it becomes more and more of a challenge to identify therapeutic strategies capable of relieving these un-integrated, diffuse hyporesponsive conditions. Methods focusing on emotional release, free expression, breaking down defense, tension release and letting go will primarily target a hyperresponsive strategy. Something is held back and in need of support in letting go, being expressed or relaxing.

A hyporesponsive state needs a different language, a different focal point with methods that will support building presence, containment, focus, and identity, and will develop coping skills.

Today, many forms of therapy focus mainly on a presence-oriented support for building up the personality.

Resource-oriented skill training used with precise individual dosing that will adapt the physical exercises to the level of energy and presence a person's hyporesponsive body areas can tolerate is suggested as one method able to precisely hone in on the hyporesponsive strategy. (Brantbjerg 2007, Brantbjerg 2008).



How does hyporesponse impact coping with stress? What is stress? - Coping with inner and outer intensity¹²

Stress is a word used to describe both outer conditions and inner states. We talk about stress both when we are facing a big outer pressure from work, for example - and when we describe how it feels inside to be under pressure. (Sørensen 2007)

When I teach stress management I use the concept "intensity" - to distinguish between both degrees of impact from outside and degrees of inner intensity in our response to outer impact.

Impact from the outer world can be scored on a scale between everyday challenge and existential threat. Another distinction in relation to impact from outside is whether the impact is acute or chronic.

Inner states can be scored on a scale between low and high intensity, where the degree of intensity will show itself in levels of arousal in the autonomic nervous system and in the radicality of our coping style - meaning if our coping style is directed from the personality or from the "survival intelligence" containing the reactions released in high stress.

Different people have different capacities for coping with high intensity impact from the outer context and with high arousal in the nervous system. A relatively low degree of intensity in outer impact will in some people release a high degree of arousal in the inner response - and in others the response will stay in low or lower degrees of intensity.

Some people are capable of staying present and proactive in high arousal and impacted by degree of pressure from outside - while others lose presence, orientation and capacity to respond actively even with small levels of pressure.

What lies behind this difference? Are some skills crucial in our capacity to manage powerful impact from the outside?¹³ My answer to this question is yes.

¹² Degrees of "inner intensity" is used here as a concept describing levels of activation in the ANS. A highly intensive inner state can thus be characterized by both high degrees of hyper- and hypo-arousal - and inner sensations attached to these 2 kinds of arousal. High inner intensity correlates to the nervous system responding powerfully to a pressure from outside. Degrees of outer intensity is used synonymously to how powerful an impact the outer event potentially has.

¹³ This question parallels the question raised by many people in trauma research: What characterizes a "good survivor"? The book "Deep Survival", (Gonzales 2003) provides interesting bids to answer this question. As a crucial skill is mentioned the capacity to orient in reality, being able to adjust the mental map to factual reality - and to be able to establish small goals within the context of a bigger overall goal. One little step at a time. The same idea is supported by a totally different approach called "Kaizen", (Maurer 2004). Changing locked patterns has the biggest chance for succeeding by taking small steps at a time. Through this strategy inner stress is not activated, which happens if the task becomes overwhelming, "impossible", pressing etc. In high inner stress we are not good at changing strategy or learning something new. By choosing small enough steps at a time this dynamic is bypassed.

Resource oriented Skill Training

My teaching and my personal experience throughout the last 30 years has confirmed that having body based presence and coping skills makes a big difference in terms of how people tolerate and manage different degrees of intensity. This is true both for inner states and in relation to outer impact. (Brantbjerg, Marcher & Kristiansen, 2004)

Skills such as flexibility, centering, grounding, boundaries, containment, orientation and the ability to regulate contact all support a presence here and now. Concrete sensing of the body will maintain a focus on myself - for me to feel that I am here. I am able to register my body's signals, to respond to them. Sensing my body will serve as a container for my emotional state.¹⁴ Concrete sensing of the external world around me will anchor me in factual reality.¹⁵

If skills are trained and used often enough they will become automatic. Under pressure reactions in the autonomic nervous system will intensify radically - which will decrease access to conscious control of our actions. We will act automatically, on "autopilot" - which means that we use skills that are automated - and thereby easily accessible. (Siegel 2004, Gladwell 2005, Brantbjerg, Marcher & Kristiansen 2004, Gonzales 2003). We are not good at changing coping strategies while under pressure. We will make use of neural networks already mapped out in the brain - the already well used networks. (Maurer 2004, Gladwell 2005).

A huge challenge arises as intensity increases inside and around us: How do we stay present? It might sound simple - but to most people it is not.

My experience from teaching people basic presence and coping skills is that their capacity to cope with different levels of arousal clearly reveals itself by their capacity to maintain a sense of centering, boundaries, grounding etc. And also that people's ability to stay present during external as well as internal pressure will be strengthened by training and automating these skills. Bodily skills will form a basis for staying proactive when facing external influence and tolerating internal mobilization - at the same time as staying present on a conscious level. The weaker the skills in a person, the lower the arousal level he/she can tolerate while maintaining a feeling of inner success. Weakened centering, grounding or boundaries will soon feed experiences such as overwhelm, confusion, emotional dissociation, need for control etc. Hyporesponse in muscles that are connected to basic presence and coping skills will lead to these skills being weakened, distanced and vulnerable to external pressure as well as internal intensity rise. Increased external pressure will typically strengthen a hyporesponsive strategy. We cope by distancing ourselves or distancing parts of ourselves. This defensive strategy is a way to try and dive beneath the pressure, a way of escaping it. Within a hyporesponsive strategy there is no way of meeting the pressure and taking a conscious stand.

¹⁴ The presentation here is based on a conceptual differentiation between concrete body sensing and emotional body experience. Concrete body sensing is factual without interpretation or emotional charge. For definitions and elaboration see Brantbjerg 2007.

¹⁵ Gonzales 2003 directs attention to how the ability to navigate in factual reality and the willingness to adjust our mental roadmap is crucial for our chance of survival in critical situations.

Reactions to stress and the meaning of hyporesponse

As arousal levels go up we use whatever automatic skills we have available in us. Everyone has their own distinct strategies that will be triggered at different levels of intensity.

What level of arousal evokes your curiosity, readiness, presence, involvement? And what kind of arousal?

What level and what kind of arousal create uncomfortable pressure - and how do you usually respond to that?

We all have both hypo- and hyperresponsive muscles in our body - and muscles with neutral or balanced response. In different states of balance and to different degrees. We all have a balance between parts of us that respond to pressure by going tense, contracting, fighting - other parts that give up, withdraw, become defensive - and parts that are able to stay present and realistic when facing the pressure we are under.

If the different parts of us had a voice, they might say:

Hyperresponsive part: *"I fight, I am handling this pressure - I live up to the world's and my own expectations - I shut off, so I don't have to feel so much - I don't want to be weak - I must be strong - I have to make it."*

Hyporesponsive part: *"This is too much - I disengage - I hide, I disappear, so I can't feel how overwhelmed I get - I am tired - I am weak - I can't."*

Balanced responsive part: *"What are the facts? What information do I need to obtain to be able to decide about this situation? What is my capacity? I am still present - I still have energy - I can go on for a while. I don't know for how long. I know I will need a break at some point to refuel and sense where I am at. Will I stay, meet and match the pressure? Can I create a flow, a way to tag along? Or do I want to leave?"*

How are these 3 responses balanced in you? Perhaps the balance changes depending in the level and kind of stress you meet.

Usually the more powerful the external influence, the less flexible we become in our choice of strategy and the more dependent we will be on our already automated strategies.

In a dominant hyporesponsive strategy we succumb to the pressure. We collapse and give up. And often emerge from the situations with a feeling of failure.

In a dominant hyperresponsive strategy we will stay in the pressure without making reality checked choices. Attempting to fight our way through, perhaps succeeding - and perhaps once again reaffirm a locked self image.

The more present we can stay, the better our chances of making reality checked choices.

The imagery here is of course simplified. Usually our reality is somewhat more complex.

For instance if I am too busy and react to the pressure by attempting to fight my way through - other parts of me - the hyporesponsive ones - disengage. I fight - AND I loose contact to parts of myself. The parts that will disengage are those least present in me in the first place.

If for some reason I haven't allowed myself time to do things out of pleasure, and if my idea of what IS pleasurable to me is hazy to begin with - this part will for sure disengage under highly intense pressure where there are things to be done all the time. It will disengage by letting the muscles that carry pleasure impulses go hyporesponsive.

The benefit I get from this strategy is that I no longer notice that I have no room for pleasure. The parts that were supposed to sense it gave up. That way I am able to be even more efficient.

The downside is that the parts of me that should signal time for a break, time to take notice, time to breathe, to take time off etc - are no longer present. They are not participating - they dropped out.

My experience as a leader of stress management workshops is that most people recognize this dynamic in some shape or form. Those who already DID "hit the wall" and are in the process of regenerating will recognize the dynamic as part of what they went through before the collapse. Others will recognize how they loose contact to parts of themselves under pressure while other parts tend to dominate - combining into a locked strategy.

Our hypo- and hyperresponsive parts engage in a subconscious dialogue about different ways to handle and survive pressure. None of these strategies are based on reality checked choices. And since our hyperresponsive parts hold the most energy at their disposal they will usually dominate our external action. This is what makes us able to push ourselves further than is good for us or that we can tolerate. In the worst case, this dynamic is what leads to levels of burn out or to one going on for years in a locked role of "being one that can handle anything".

Increasing presence by building up energy is a possible strategy

So what can we do about these dynamics?

A common suggestion as mentioned earlier is teaching people to relax - in the sense: getting the hyperresponsive muscles to let go and relax. Another suggestion often added is physical activity as in exercise. And bodily activity does have an impact on hyporesponsive muscles - but only as long as activities are precisely dosed, respecting how much muscular presence and fullness the person can tolerate to build. Hyporesponse is not only giving up in a physical sense. It is a psychological strategy. This means that an emotional process will be triggered by inducing presence to given up muscles. The given up parts will approach a conscious level and if the physical activity fails to respect this fact you run the risk of the person being overwhelmed and the hyporesponsive muscles once again disengaging from the activity- leading the person back to a pattern where the most powerful and energetic parts engage and the given up parts best case are left unscathed, worst case will give up even more.

In resource oriented skill training I will meet the hyporesponsive strategy by teaching people to dose exercises to match their inner energy level.

Every time an exercise causes exhaustion or feels difficult to sense at all I interpret it as a sign of hyporesponse - and I will recommend the person to go smaller, use less power, perhaps slower. "Do as you did, but smaller."

An example: If the muscles supporting muscular sensing of the physical balance point (Psoas major and Quadratus lumborum) are hyporesponsive it will become evident when doing centering exercises. Doing a standing cross/crawl movement, moving right knee and left elbow towards each other, left knee towards right elbow and so on will activate core muscles. This support us in sensing our physical balance point and a feeling of being centered.¹⁶

If the muscles involved are hyporesponsive, it will feel difficult or strenuous to do this exercise. A lower dose could be decreasing the size of the movement - so far as to not lifting the leg off the ground at all - only slightly moving knee and elbow towards each other. Dosing can be regulated to the extent of mere contemplating of movement, imagining doing it. Often the magic happens when dosing matches the person's level of inner presence - and he/she suddenly registers a sensing of the body from within. A slight muscle sensing revealing that something is going on inside! This form of muscle activation -however small - initiates a building of presence and fullness in the muscle. The part that was disengaged and given up is now once again invited back into consciousness by respecting what is a tolerable level of energy for the person. An exercise dosed precisely to a person's level of tolerance will very likely lead to an inner sense of success.¹⁷

Maintaining presence, fullness, and drive ceases to be an option once a hyporesponsive strategy sets in. Bodily training focusing on building energy to the level that is tolerable for the person in terms of staying present is an effective method for working with parts of a person that have given up to some extent.

In relation to coping with stress, this approach is an opportunity for insight into the dialogue between the parts of us that tend to take over and dominate - and the parts that lose energy and give up.

It is an opportunity to choose supporting presence and fullness in the parts with the least amount of energy - thus raising energy and presence in the body as a whole. Often this general energy increase will make hyperresponsive parts begin relaxing on their own - or be more free to choose to release tension through movement, sound etc.¹⁸ Combined, these changes will increase a person's presence significantly - thereby opening an opportunity for relating realistically to the pressure they are under - be it internal or external.

¹⁶ This exercise is described more fully in Brantbjerg 2007

¹⁷ For elaboration on the concept of dosing, see Brantbjerg 2007 and Brantbjerg 2008

¹⁸ "Releasing energy" is viewed as a training principle in accordance with "Building energy" (see also note 5). A given movement can be performed either to build energy or to release energy. Releasing energy is a movement extended to its fullest and let go in the end - perhaps using a sound. See also Appendix A.

Exemplifying this dynamic:

At stress management workshops I will start off by inviting participants to choose a situation from their lives they feel is stressful. It should be one with a reasonable, not too severe level of impact as to keep the process at an arousal level where it is still possible to explore and integrate new skills. During bodily skill training I will from time to time ask participants to think back to the situation using their new skills in relating to the stressful situation. Which skills seem to support them in relating to the chosen situation?

On the first day of the workshop I will guide participants in many exercises supporting concrete sensing of the body and building of muscular energy to slowly enhance participants' bodily presence. Energy will rise. And as we move into late afternoon I will once more ask them to consider the stressful situation and observe how they react. Some common answers are: *"The situation seems less significant to me. I don't feel pressured anymore. It feels easier to have a distanced view of the situation. I am bigger now - the balance between the situation and me has changed completely".*

These answers indicate how influential the energy level in the body and our presence is to the perception of external pressure - thereby also what reactions are evoked in us.

Coping with high stress – survival intelligence takes over

The “autopilot” mechanism mentioned earlier is triggered when we momentarily or over a course of time experience high intensity inner states (triggered by external pressure), that exceed our personality's limit of available resources or defence strategies.

Dan Siegel named this reaction: “The Low Road” - in reference to the way the brain is activated. Put simply cooperation between prefrontal cortex and the primitive parts of our brain - the limbic system and brain stem - is interrupted. The dialogue between our reflex response¹⁹ on the one side and our ability to reflect and consciously choose on the other simply ceases (Siegel 2004).²⁰ We respond directly from what I choose to call our “survival intelligence”. Reactions are extremely fast, we act before we have time to think - at a speed that is utterly suitable when finding ourselves in life or death situations. Survival leaves us no time to think or adjust to any social context before acting. Our personality's value system is pushed aside - and actions based on pure survival instinct take its place (Brantbjerg, Marcher & Kristiansen 2004).

Siegel describes “the low road” like this: “Low-road processing involves the shutting down of the higher processes of the mind and leaves the individual in a state of intense emotions, impulsive reactions, rigid and repetitive responses, and lacking in self-reflection and the consideration of another's point of view. Involvement of the prefrontal cortex is shut off when one is on the low road.” (Siegel & Hartzell 2004 p.156)

In comparison “the high road” is: “A form of processing information that involves the higher, rational, reflective thought processes of the mind. High-road processing allows for mindfulness, flexibility in our responses, and an integrating sense of self-awareness. The high road involves the prefrontal cortex in its processes.” (Siegel & Hartzell 2004 p.156)

What triggers this shift between coping from the personality (the high road) - and coping from the survival intelligence (the low road)? In my view the mechanism is triggered in situations with an intensity that exceeds what we are able to handle with the resources and defence strategies available to our personality. That is also why it differs from person to person how much and what strain that will trigger a shift. How intense an external strain or internal arousal needs to be for a person to feel threatened at an existential level triggering a shift into survival intelligence mode will vary.

Or to put it in terms of the above: The strength of a person's bodily presence here-and-now will determine how much external and internal intensity he/she can tolerate while still maintaining presence and cooperation with her prefrontal cortex. Training bodily coping- and presence skills can move the shift to “the low road” further up the intensity scale (See also illustration 2.1 on page xx).

¹⁹ “Reflex response” is seen as reactions and actions triggered when activation of the limbic system works directly together with the brain stem – and not the cortex. These reflex reactions are partly inherent and partly automated by our experiences.

²⁰ It lies beyond the realm of this article to go into detail about brain function during high stress. Siegel 2004 presents a simple and exact theoretical elaboration on this.

For us to be able to shift between direction from our personality and direction from our survival intelligence is basically constructive and crucial to our survival. And no matter how good our presence skills might be, there will always be situations in life that will trigger "the low road". For the personality to be dismissed when survival intelligence takes over is often perceived as a painful or overwhelming loss of control.

Suddenly we said or did something with an intensity that took us by surprise. Or in the wake of existentially threatening situations over a course of time we might feel that we behaved or reacted in ways very foreign to how we perceive ourselves. Bridging the gap between the 2 parts of us - personality and survival intelligence - to my mind is a vital part of trauma and high stress healing work (Brantbjerg 2007, Brantbjerg, Marcher & Kristiansen 2004).

In this article I will concentrate on the mechanisms mentioned that prove relevant to stress management.

Experiencing high arousal and feeling threatened will trigger "the low road". Arousal levels in the autonomic nervous system are high and are no longer regulated by cooperation with the prefrontal cortex.

Quoting Siegel: "One of the many important functions that the orbitofrontal cortex is believed to carry out is the regulation of the autonomic nervous system (ANS), the branch of our nervous system that regulates bodily functions such as heart rate, respiration and digestion. It has two branches, the sympathetic, which is like an accelerator, and the parasympathetic, which resembles a braking system. The two systems are regulated to keep the body balanced, ready to respond with heightened sympathetic arousal to a threat, for example, and able to calm itself down when the danger is past. The ability to have balanced self-regulation may depend on the orbitofrontal region's capacity to act as a kind of emotional clutch, balancing the accelerator and brakes of the body." (Siegel & Hartzell 2004 p.177) .

As long as we are able to move back and forth between dominant activation of the sympathetic (S) and the parasympathetic (PS) branches of the autonomic nervous system, we are in my experience able to handle external and internal intensity. As long as I am able to sleep at night, as long as I can pause and nourish myself (shift to dominant PS activation), and as long as I can mobilize a drive to match what I might encounter (S activation), I will successfully cope with the situation I am in. I might feel pressured by this state, or I might enjoy the arousal - I am familiar with both.

During high mobilization of the ANS it is possible to shift between hyperarousal (highly active S) - and hypoarousal (highly active PS). In hyperarousal we are extremely active, ready, fast, hyper-attentive. In hypoarousal we go dead, we hibernate, sleep heavily without dreaming²¹. At extremely stressful times of my life I have experienced this shift between states. Super ready and action driven as soon as I woke up - and completely dead at a moment's pause - or when sleeping at night. It is extremely strenuous to our body to function in high arousal over a prolonged period of time - but still it is less strenuous if our ability to shift between rest and activity is intact.

The model (ill. 2.1) illustrates intensity scales with swings between the parasympathetic and the sympathetic system. The swings increase as we move up the intensity scale. The model illustrates our potential ability to maintain a swing between parasympathetic rest state and sympathetic preparedness even under high intensive influence.

Distress

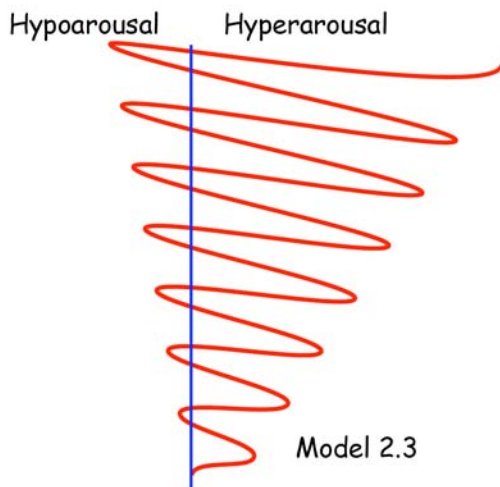
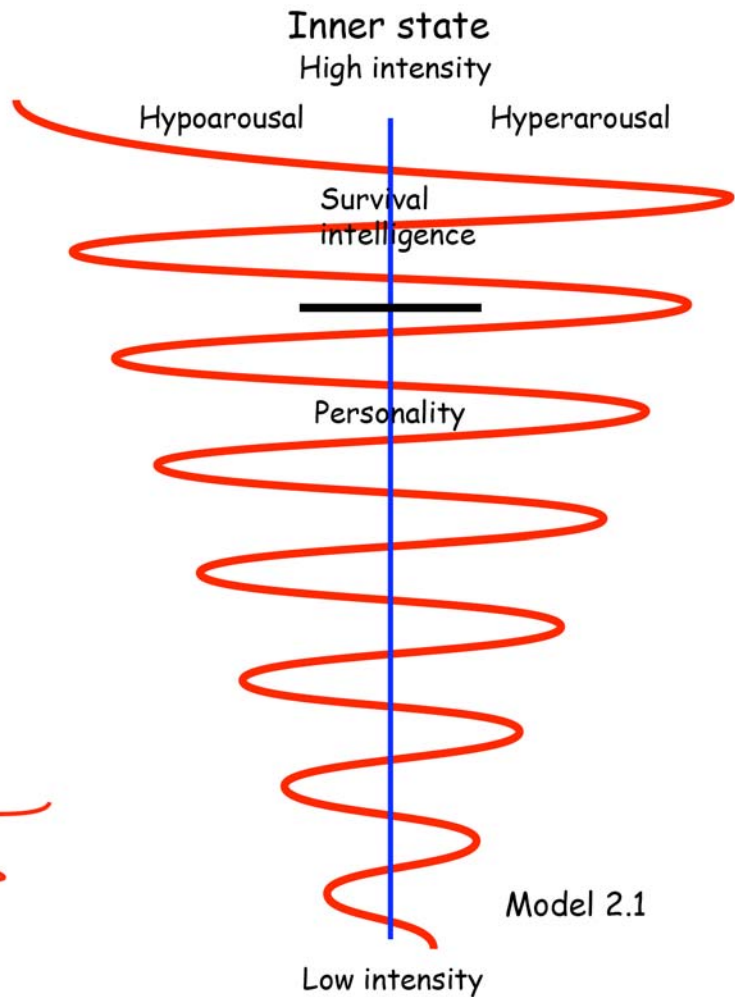
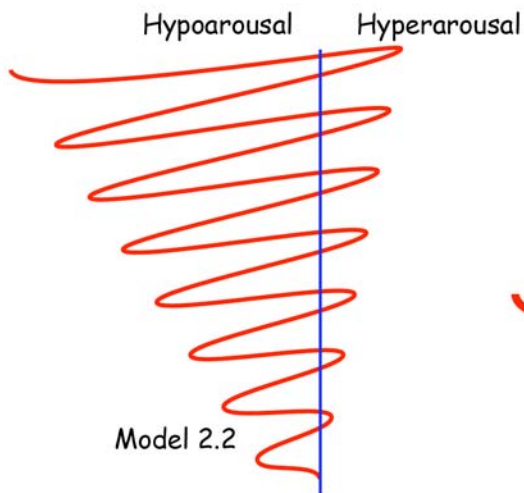
Distress²² containing the kinds of stress response that are particularly strenuous to the body, appears when this natural regulation between sympathetic and parasympathetic dominance is no longer intact in us.²³

We can get caught up in both hyper- and hypoarousal. In locked hyperarousal we lose the ability to rest and regenerate. We are "on" all the time, constantly awake and mobilized to act and react. In a state of locked hypoarousal the opposite is the case - the body goes dead, collapses, sleeps a lot, we can't get going after sleep. The model (ill. 2.2 and 2.3) illustrates locked positions as a shifting of the spiral movement to one side or the other. Locked positions can be more or less extreme depending on how far the spiral tilts. Both extreme reactions are survival strategies that help us through periods of high intensity. They are part of the survival intelligence repertoire. At the same time they are highly strenuous for the body - and it takes time to land and recuperate from them.

²¹ Please note that muscular hypo- and hyperresponse and hypo- and hyperarousal in the autonomic nervous system are not the same. The skeletal musculature handles our psychomotor skills - and when the direction comes from the personality, our muscles are under our conscious control. We can decide to lift one arm - or not. Muscle response whether hypo, hyper- or neutral/balanced response is linked to the skills held in the personality. With this muscle response we regulate our access to these potentially conscious skills. The autonomic nervous system regulates vital functions such as respiration and heart rate. Regulation is automatic and beyond the personality's control.

²² The term distress was introduced by Hans Selye back in the 1930's. "Distress" is perceived as negatively charged stress straining the body both physiologically and psychologically. At the opposite end of the spectrum the term "eustress" is used to name stress that is perceived as positive - like a euphoria (Sørensen 2007, Goldwag 1979).

²³ I use the word "dominance" to underline that the swing in the autonomic system is not a jump between either or. The parasympathetic and the sympathetic branch are both continually active - but with one being dominant at any given time. This should also help to clarify that the terms "rest" and "activity" are relative and can be varied with different levels of activation in PS and S respectively.



That we will experience situations that trigger these high stress mechanisms is a fact of life. Sometimes we can make life choices that will change our circumstances to a course that better matches our ideal level of function. It can be quite important to avail ourselves of these opportunities.

On the other hand it is my experience that high stress and trauma "happen". They are a part of life that we can't discard. We can choose to relate consciously to the reality of these phenomena - including what to do with them.

The skills we have trained and integrated well enough to be automatic will follow us into the repertoire of our survival intelligence. That means that we can expand our repertoire, widen our access to different options during high stress through skill training while we are not under pressure.

This is the essence of using resource oriented skill training as a transformational strategy in relation to stress and trauma,

Coping with transitions

What skills help us master transitions between high arousal and low arousal and vice versa? What helps us shift between activity and rest? What helps us land after functioning by survival intelligence for a short while or over a prolonged period of time?

Mastering these transitions determines how we function in different states. If we are able to "hold on to ourselves" through transitions, the better our chances are of reaping the benefits from the states.

In my experience, an internal dialogue between our hypo- and hyperresponsive parts, will play a significant roll in how well we handle transitions. And being aware of this internal dialogue can offer new opportunities.

Shift between activity and rest - taking breaks

Shifting between rest and activity - between parasympathetic and sympathetic dominance is a skill as any other basic skill - and it can be trained. Skill training, as mentioned earlier, is only effective at an arousal level where a person is present and able to adopt new material. When external influence and/or internal arousal intensifies radically we depend on the skills that are already automatic - such as shifting between rest and activity. It pays to train the skill while not under pressure - when it isn't "necessary".

Now - what constitutes "a good break" - and how do you know? What determines if a break feels good or bad? What supports you in transitioning from activity to break/rest mode? And what supports you to get going again from rest and back into activity in a way so you feel "there"?

The internal dialogue between hypo- and hyperresponsive parts of us will often reveal itself by our answers to these questions.

For a break to be "good" parasympathetic activity must dominate our ANS. But not the part activated in hypoarousal. We do not regenerate in a state of hypoarousal - our physical body merely survives.

Stephen Porges has introduced a theory describing 3 branches of the autonomic nervous system: The sympathetic branch and 2 branches of the parasympathetic system. One branch, the dorsal parasympathetic, is presented as innervating our earliest evolutionary survival response to threat. You go dead, go into hypoarousal. Activation of the sympathetic branch of ANS is linked to our ability to flee and fight. Our most recent evolutionarily developed survival reaction is represented by our ability to bond and seek out social contact when we have felt threatened. This response is linked to innervating the second or ventral branch of the parasympathetic system.²⁴

I don't possess the neuro-anatomical expertise to assess Porges' contribution. However from my practical experience in working with stress and trauma I do recognize that it makes a lot of sense to differentiate between 2 types of parasympathetic reaction. One is dominant during hypoarousal - where we need to react by survival intelligence - and one is dominant when resting, regenerating, refuelling, nourishing ourselves, making love etc. For that reason I will refer to this differentiation in the following.

Let us go back to the question of what constitutes a good or functional break - or the opposite. After lunch on the first day of stress management workshops I will ask the participants if they had a good lunch break - and what they base this assessment on. From their answers I define a functional break as a period of time where you have taken in something you perceive as nourishing - and that to a satisfactory degree you changed focus from what you were doing before. There is a lot of individual variation in what is considered "good break nourishment" and how much we need to let go of the activity we were in before the break.

Nourishing ourselves is an activity, whether it is food, contact, movement, nature, experiences, inspiration. It takes presence and bodily skills to let go of what you are doing, orient to what resources of nourishment are available, choose, reach for, take in and digest. If you are exhausted or collapsed this kind of active exchange with the world is not accessible.

²⁴ These 3 survival strategies we share with many species of animals. The "Go dead" mechanism we share with all living creatures, even amoebas. The fight/flight strategy we share with other animals that are able to actively move themselves out of a situation. And seeking out contact, engaging on a social level we share with animals that live in packs. (Hart 2006, Claesson 2003).

Drawing inspiration from Porges' view on the autonomic system: A good break depends on our ability to engage on a social level and interact in a nourishing way. And this entails activating the ventral part of our parasympathetic system.²⁵

How is the internal balance between hypo- and hyperresponsive parts significant for our ability to establish this involvement with the social platform from the ventral part of PS? The state we are in while active before the break will determine how easy or hard it will be to handle the transition to break. Now - what happens when we go to break in a typical stress pattern with hyporesponsive parts dominating while other parts disappeared in hyporesponse? Often we will plunge into hyporesponse - or to avoid ending up down there we don't let go of the tension and miss the break all together.

The hyporesponsive parts of us are forgotten, they go unnoticed, will not attract attention to themselves. They are often pushed even further aside when we initiate action, need to perform or be efficient, because they are slow and lack fullness and presence. In that sense they are "difficult". They have a hard time "keeping up" and are often expelled from our conscious self image. And yet they are there - equally valid parts of us to those with a higher energy level and those that fight.

The forgotten, hyporesponsive parts often come to the fore when we shift into break mode. If we didn't pay attention to these parts of the body while we were active, they lie dormant - "waiting" for us to let go of activity. Then they emerge as a sense of emptiness, exhaustion, lack of impulse, "don't know what I need or want". It becomes difficult to have a functional break because the parts that were supposed to take notice and seek out potential sources of nourishment have given up.

I recognize this as my typical reaction when returning home from extended periods of intensive teaching. Parts of me that I didn't have or take time to notice or attend to will emerge when I get home - usually as feelings of emptiness, sadness or difficulty sensing what kind of nourishment I need. I am naturally tired, but I am also impacted by a degree of hyporesponse. In this situation there is a risk I will start working again to avoid the emptiness - or that I will collapse. If I stay with this feeling of emptiness and loss of energy, if I tolerate sensing these states, a sense of presence will slowly build in my body in a different way. Energy is reintroduced to the areas that gave up. Often there is a phase where I feel generally frustrated - and after that I begin sensing what I want.

²⁵ The expression "interacting with the social platform" or "engaging in the social platform" is used in a broad sense in the following part of the article. It can mean anything from reading a book, choosing to see a movie, go for a walk, talk on the phone, visit someone, look out the window enjoying the view, be touched etc - many degrees of contact between the world and me.

Relating to this dynamic on a conscious level will be supported by knowing one's own tendencies towards hyporesponse well enough. What parts of my body will usually "disappear", will I easily forget to feel? What kinds of impulses do I usually lose contact with - breathing, looking around, asking myself what I want, taking direction from within, moving, feeling centered, seeking back support, advancing, etc.

Based on this knowledge of myself I can make a conscious choice to direct my attention towards and support presence in these areas before initiating an activity. The intention behind these choices is consciously nourishing the parts of me that tend to get lost. Not "out of pity", but in recognition of their existence and the fact that they (no matter what I do) have an impact when I am active and when I need a break. Increasing my presence by building energy in my hyporesponsive areas is being responsible for them as parts of me - while including my sensing them as basis for my conscious choices.

It is important to keep in mind that hyporesponse is a psychological defence strategy. Increasing presence in hyporesponsive parts of the body is a transformational process that can only happen to the extent we are ready. On principle, resource-oriented skill training always encourages going for exercises that leave us with a feeling of success. With regards to hyporesponse, this will mean areas with a slight tendency towards giving up that are able to regain presence by muscle activation - and where the psychological material that is stirred can be perceived as a resource.

Dysfunctional breaks are often described as breaks where you collapsed - where you plunge into hyporesponse or even further into hypoarousal. An example is getting stuck in front of the TV without choosing what to watch - and without being able to take in what you are watching. Or the "bad breaks" where you don't get to let go, are stuck in activity, interrupted - so you don't let go of sympathetic innervation and maybe not of hyperresponsive dominance either, perhaps as a safeguard to avoid plunging into giving up.

The regulation of these dynamics is an interaction between regulation in the ANS and the nature of our coping skills - expressed in the degree of hypo-, hyper- or balanced muscle response. Usually stress patterns are described in terms of regulating the nervous system. When under stress we are usually locked in sympathetic nervous system overdrive - we are locked in activity and need to enter the parasympathetic and rest. Focusing on muscular hyporesponse will add another dimension to this simplified picture. Hyporesponsive muscles don't actively participate in regulating activity. They don't signal Stop/Continue. Often they never really engage in the activity, or they disengage if arousal levels start going up. Without sufficient muscular presence we don't land in social contact, which according to Porges corresponds with activity in the ventral part of the parasympathetic nervous system. Instead we land in a body characterized by giving up in bigger or smaller parts of the musculature. In this state, pausing and regenerating becomes difficult because we have difficulty sensing and acting on the impulses that will initiate nourishing exchanges with the world around us.

In relation to the nervous system this will sometimes lead to us slipping into hypoarousal in the parasympathetic system and thereby slip out of social involvement altogether where we would have been able to recuperate.

These states are not relieved by learning how to relax, but by acknowledging and integrating the hyporesponsive parts into our self image - and by learning how to build and retain energy.

This is significant:

- in transitioning from rest to activity. Increasing presence by building energy in hyporesponsive areas supports us in engaging in activity as fully as possible.
- during activity. How to maintain contact to the parts of us that are least full and present? How to shift between attention to parts of us that tolerate and perhaps thrive on high intensity - and parts that disengage as arousal levels rise?
- in transitioning from activity to rest. How to support presence in hyporesponsive parts of the body when relaxing - so we are capable of regenerating in exchange with the world around us instead of collapsing?

The transitions here are present many times during the day at different levels of both internal and external intensity. Our every day lives offer an endless number of transitions for us to practice our attention to how we bring ourselves through transitions. How do we get out of bed in the morning? How do we initiate the activities of the day? How do we shift between rest and activity during the day? Etc.

To include attention to our hyporesponsive parts during these transitions holds a profound transformational potential. And it develops skills that are crucial to us when having to handle violent transitions between our personality and states of high arousal.

In and out of high arousal. How to “take off” and “land”.

Which skills will decide how well we handle the transition into high arousal? And what will help us land once we have functioned in high arousal for a brief moment or over a prolonged period of time?²⁶

As described earlier the state we are in as we engage in an activity will play a significant role in how we will exit that activity. The “platform” we “take off” from when entering high arousal - will affect the platform we ultimately will “land” on.

So which skills support us through these transitions, and how is attention to hyporesponse significant?

The more presence and fullness we have in the body, the more high intensity exterior influence we will be

able to meet and match. In other words: We can prepare for shifts into high arousal by building muscular energy. From an expanded bodily presence a shift into reflex-directed reactions will seem far less overwhelming or frightening than if the body is disengaged and limp when we suddenly find ourselves challenged by some form of high intensity influence. As we shift to “the low road” - directed by survival intelligence - a shift will occur in our motor function. As long as we are functioning directed by the personality, muscle control is governed by our consciousness. We can decide to lift an arm - or not. In states of high arousal our movement impulses are to a large extent ruled by reflexes.²⁷ We don't think before we remove our hand from the burning hot stove. We get it off of there before we had time to think or feel anything. Luckily.

This shift into direction by reflex is a skill you can train. The article “The Body as Container of Instincts, Emotions and Feelings” (Brantbjerg & Stepath 2007) describes a series of exercises training the specific skill: Daring to let go and let the body's reflex movements take over.

Here we will reflect on the significance of hyporesponse for this particular skill.

If the body is dominated by muscular hyporesponse shifting into high arousal feels overwhelming. The body is not in a state suited for handling the level of intensity that will be released in reflex movement. Think for a minute how your body reacts when you loose balance, are about to fall, and regain your footing? The speed and intensity in these movements is high. Now imagine that in the seconds before you lose your balance a big part of your body is in a giving up mode? What does the difference feel like? Anxiety and stiffening are common reactions.

²⁶ Brantbjerg, Marcher & Kristiansen 2004 reserves an entire chapter (Chapter 5) for describing training bodily coping skills as a trauma therapeutic method. There you will find an earlier version of what I present in this article. Some terminology has changed, but the basic concepts are the same.

²⁷ Direction through reflexes in my interpretation also includes the use of automatic skills.

Based on Porges' 3 categories of survival response it is highly likely that the body will "choose"²⁸ the most radical strategy - to stiffen and go dead.²⁹ The fight/flight mechanism demands extrovert energy. That is difficult and usually impossible to mobilize from a dominantly hyporesponsive state.

Dominant muscular hyporesponse can in other words predispose us to go dead or freeze in a state of high arousal. *By contrast, dominant muscular hyperresponse will predispose us for fight or flight - if the situation allows it.

The survival responses we "choose" are based on an instantaneous scanning of options in the immediate situation combined with accessible resources within ourselves. Working with hyporesponsive muscles and thereby raising a general level of presence in the body has proved to be a method capable of influencing the kinds of response accessible to us during high stress.

Increased presence in hyporesponsive areas of the body will often lead to a greater sense of safety in letting go in the hyperresponsive patterns (letting go of control) and thereby more freely being guided by our reflexes.

Now - what about landing when returning from a state of high arousal? How do we master the transition from high to low internal intensity - from being directed by our reflexes in high arousal to being in control in the personality?

The challenge at hand depends on whether we need to find a way back from hyper- or from hypoarousal. And also if the high arousal states we have been in were experienced as positive or negative. Landing from a positively experienced high intense situation³⁰ can be as much of a challenge as landing from a negatively experienced high stress experience where you were either paralyzed/went dead - or were ready for fight or flight.

For me it is a challenge to finish and return home from a big professional conference or an intensive workshop. It entails shifting from a highly intense context with a lot of people and activities back to the everyday context I share with my husband.

Maintaining body presence during landing, and taking actions to secure a reasonably slow lowering of arousal levels instead of an abrupt and immediate one - are the best tools I have discovered for this transition.

²⁸ "Choose" is in quotation marks to stress the fact that the choices we make in our survival intelligence are not conscious. None the less, there is an authority inside of us that scans the situations instantly and makes the choices that then dictates our response.

²⁹ To "go dead" is a powerful survival strategy. In trauma research and trauma therapy there are 2 leading perceptions of what happens in ANS in the the going dead reaction: One idea is that ANS is entirely dominated by PS activation. In Porges' version - the dorsal branch of PS (Hart 2006, Claesson 2003). The other idea is that "accelerator and breaks are activated simultaneously" meaning there is a strong activation in S - and on top of that lies a strong activation in PS. (Levine 1998). These 2 directions point to different therapeutic strategies - so it matters which one you base your interventions on. In my view both versions probably happen - and the challenge for a trauma therapist lies in discerning when you are faced with what kind of hypoarousal. This article sees hypoarousal as an expression of powerful activation of the dorsal branch of PS.

³⁰ Positively experienced high arousal events have also been named "peak experiences". These experiences hold states of heightened consciousness beyond the realm of the personality (Jarlnæs & Luytelaar 2004, Brantbjerg, Marcher & Kristiansen 2004)

The risk of collapsing, as I described earlier when talking about pausing, is very high when returning from a state of high arousal. The body is naturally tired from high mobilization, often there is a natural impulse towards swinging into rest mode. At the same time we usually land in a context where there is less involvement, less stimulus and less threat if returning from a negatively experienced situation. There is a loss in landing, a loss of intensity, that can be experienced as either a relief or a disappointment. Different emotions can be stirred during landing. If the shift is abrupt, if we lose presence and a certain level of activity in the body, it is very easy to land in collapse with dominant hyporesponse or even hypoarousal where it will be difficult to sense what is happening inside. We may not sense our emotional reactions to this shift in intensity levels. The challenge is to maintain enough body presence for us to be able to land engaged in the social platform. From a muscular point of view, we need to retain some of the fullness and activity already present in the body, and let go of it slowly instead of collapsing.

Letting go slowly is a skill that takes just as much presence as getting ready by building up energy. And both will challenge the parts of us impacted by hyporesponse.³¹

Another version of "landing" from high arousal is not landing at all. We "choose" to stay in the state of high arousal. In my understanding this is the key to unresolved trauma and high stress states. You stay fully or partially in the high arousal reactions.

The condition for being able to land is that there is a platform to land on - within your self and in a social context. In other words: The degree of safety in the personality's domain will determine the degree of landing.³²

The process of landing makes the transition between personality and survival intelligence visible - thereby highlighting how well the two parts of us cooperate. The same goes for shifting from normal arousal level to high arousal as described earlier.

In the following I will systematize different patterns in the relationship between personality and survival intelligence and hypo-/hyperarousal in the autonomic nervous system. The presentation is based on my interpretations of patterns I have observed in clients, students, colleagues and myself through many years of working with stress and trauma.

In my presentation I also include ideas of treatment strategies in relation to hypo- and hyper patterns, that I have experienced as effective.

³¹ At a psychotherapist conference in Cambridge 2007 I was asked to guide the participants in preparing for the event to come to an end and for the journey home by using body-oriented skill training. I verbally supported awareness about how ending a conference entails a shift in intensity and guided participants in sensing basic bodily skills such as grounding, centering and personal boundaries. Part 1 of this guidance took place in the morning of the last day and part 2 was 30 minutes before the conference ended. Feedback from both participants and hosts was very positive. Many found it helpful to become more aware of how concrete body sensing can be used in coping with the transition.

³² Optimizing safety is the key to landing and to integrating the parts of a person that has stayed stuck in unresolved trauma reactions. Safe Base, Anchor, Safe place are terms used in all kinds of trauma therapy I know. (Bowlby 1988, Rothschild 2000, Levine 1998, Anstorp, Benum & Jakobsen 2006)

Schematically the options can be presented as follows:

<p style="text-align: center;">Arousal states in ANS - the autonomic nervous system</p>	<p>Dominant hyperarousal</p>	<p>Hyperarousal in ANS combined with a dominant muscular hyporesponse</p>	<p>Hyperarousal in ANS combined with a dominant muscular hyperresponse</p>
	<p>Dominant hypoarousal</p>	<p>Hypoarousal in ANS combined with a dominant muscular hyporesponse</p>	<p>Hypoarousal in ANS combined with a dominant muscular hyperresponse</p>
		<p>Dominant hyporesponse</p>	<p>Dominant hyperresponse</p>

**Coping strategies represented in the
muscle system - impacting containment**

Hyperarousal in ANS combined with a dominant muscular hyporesponse

This combination often leads to the person shifting between being unwilling/unable to land - and collapsing. Dominant muscular hyporesponse will make it difficult to "land engaged on a social platform" (corresponding with the ventral branch of PS according to Porges). As soon as intensity drops the tendency towards collapsing shows - and instead of landing in a nourishing exchange with the world, you end up in passive giving up or in extreme cases in hypoarousal. Or you stay mobilized in hyperarousal - with drive, in high gear, social in the way you can be when in high arousal. But rather than ending up collapsing - might be the conclusion.

I very often see this combination either as a main pattern or part of a pattern in people having unresolved trauma issues. Working to build presence in the hyporesponsive musculature and through that adding more coping skills to the personality is crucial for initiating a transformation process. A strategy targeting the hyperaroused part of the pattern - teaching the person to relax will not work. In the worst case it will trigger collapse in hypoarousal where no healing happens - and that is often difficult to get out of once you are in it.

People that burned out know this pattern. They have been in hyperarousal for a long time, covering up the patterns of resignation by high stress mobilization - until the system gives in, and they collapsed into hypoarousal. The missing piece is learning how to build presence and energy in a way that respects inner dosing. By slowly gaining skills a person becomes able to engage in the social platform from personality and not from the high stress pattern.

Hyperarousal in ANS combined with a dominant muscular hyperresponse

A state of being ready for fight in the nervous system and dominating muscular tension and control will mean that the body's energy levels are VERY high. Typically you will be locked in high intense activity - and if you take time off you are still active. Another option is that you don't land, never take time off, because the personality you were supposed to land in doesn't allow it. You keep going all the time. The hyporesponsive parts of the person - if they exist - are kept far from consciousness and will never come to light. They are expelled from the self image completely.

Having this combination there is a need for learning how to relax - enough for the person to start noticing the parts that have never been noticeable. After that it is wise to work on building presence in the neglected parts at the same time as focusing on relaxation. Such a powerful tension strategy is there for a reason. What has been avoided by maintaining such a high activity level? Those secrets are usually well hidden in the neglected hyporesponsive parts.

Hypoarousal in ANS combined with a dominant muscular hyperresponse

Hypoarousal states are terrifying to most people, because they hold a profound feeling of powerlessness and no action ability. Landing from hypoarousal is a challenge to everybody - and my experience - along with other trauma therapists' experience - indicates that landing only happens if safe contact to safe people is available - contact that includes acceptance and understanding of the deadness and lack of impulse in the state (Rothschild 2000).

This form of contact offers a way for the state to start shifting. When that doesn't happen (which is the case in many unresolved trauma and high stress patterns) how will we "land" in personality? One option is to use all we have got of hyperresponsive patterns to keep the state of hyperarousal at bay from consciousness. In other words: Always on the go, always active. It is difficult to relax. Giving up is lurking underneath, ready to take over as soon as you let go even a little. So you will try to avoid that. From time to time a state of hypoarousal will break through the defenses of the personality, and then a new struggle for escaping deadness and getting back into activity will begin.

What works here is a slow build-up of presence in the hyporesponsive parts of the body. This will facilitate approaching the deep experiences of powerlessness and deadness from a more resourceful place within. We need to build a container in the body and personality that will be able to tolerate the states, making it possible to acknowledge and integrate them. They are natural reactions to extreme impact.

A strategy targeting relaxation is absolutely contraindicated. Relaxing with this pattern equals plunging into hypoarousal - and as long as there isn't a container for the state, there is no other option than fighting your way out of it again and thereby re-establishing control by the hyperresponsive muscles.

Hypoarousal in ANS combined with a dominant muscular hyporesponse

This combination contains profound giving up both as survival strategy and as personality defense. This state will often express itself as difficulty functioning in a normal life. With dominant muscular hyporesponse we are left with no way of getting away from the powerlessness and the deadness. There is no container or acting ability to remove your self from the deadness. Slow and careful building of energy - with a continuous integration, verbalization and building of coping skills in a therapeutic relation stands a chance of having an impact on this state. Strategies focusing on relaxation and emotional release are contraindicated in this case. The issue is that there is no centering, no gathering, no ability to act - there IS nothing to let go of.

The above presentation is of course simplified. Most people usually have more than one of these strategies available to them - and will shift between one and another - though often favoring one that will dominate.

My key intention with this presentation is to communicate an idea of how vital building of presence in hyporesponsive musculature is in coping with and landing from high stress states. It is the strength of our personality's container, supported by our muscular presence, that will determine how we are able to interact with the social platform. And it is this interaction with the social platform that offers an opportunity for landing and releasing high arousal states.

A physical add on - one more piece to the hypo/hyper landscape

When observing people in high stress states - how do these states manifest in the body? Muscle response patterns manifest themselves by the level of distance/deadness - fullness/presence - or tension in the muscles.

Arousal states manifest themselves in changing of the pulse, heart rate, pupil dilation, temperature, respiration etc. But they are also expressed in the state of the body's connective tissue - tendons and fascia.³³ The connective tissue is the first tissue to mobilize when we even think of moving, before our muscles are activated, and before consciousness realizes that we are getting ready for something.

To feel the difference between muscle activation and connective tissue activation you can try the following:

Let one arm hang down by your side and then lift it out to one side. Use your other hand to feel the muscle on top of your arm (the Deltoid muscle). When the arm is lifted out to the side, the muscle is activated, which is felt as a firming and hardening of the muscle. This is muscle activation.

Now let the arm hang by your side again. Simply think of moving the arm to the side, and notice the mobilization that happens when you do that. This mobilization happens in tendons and fascia around the muscle. Also notice the state of readiness that is activated by this almost invisible physical mobilization.

³³ Fascia are thin connective tissue membranes, enveloping all the body's tissue, muscles, bones, organs. They are tied together into one big system connecting the whole body.

Connective tissue is activated when we mobilize to get ready for action. Connective tissue activity links to our intention of moving - not the movement itself.³⁴ It is noticeable as a feeling of energy in ourselves and in others.

Even connective tissue can be hypo- and hyperresponsive. This adds another piece to the puzzle - and another series of possible patterns and combinations of hypo- and hyper patterns. I will not go schematically through these options - merely highlight one pattern I often see in people with locked stress patterns.

Hyperarousal in the autonomic system is often combined with hyperresponse in the connective tissue. The body has a tense expression that not only stems from the nervous system, but also stems from how energy radiates from the tense fascia system. The body is fixed in a permanent mobilization.

If you don't look for muscular fullness - don't think that there might be a dominant muscular hyporesponse beneath the tight connective tissue - you might miss it - and opt for a strategy of helping the person to relax.

This strategy is not recommended. With an underlying dominant muscular hyporesponse there is no desirable base for landing. Mobilizing for action in survival intelligence is not the same as having access to impulses for action in the personality. There is still a need for building muscular presence and training basic psychosocial skills that in time will help establishing a landing platform in the personality.

Hyperarousal is usually linked to hyperresponse in the connective tissue - whereas hypoarousal is linked to hyporesponse in the connective tissue.

Concluding remarks and perspectives

The focus of this article has been to bring the concept of the hyporesponsive strategy to the foreground - especially in relation to different levels of stress. Hyporesponse, as the title indicates, is a hidden challenge in coping with stress, because it doesn't call attention to itself.

Acknowledging and accepting the presence of hyporesponse in the body is a powerful process potentially capable of transforming a person's self perception.

To most people I teach for the first time, hyporesponse is a non-acknowledged part of their bodily reality and self image. Signals from hyporesponsive parts of the body are often interpreted as "tension" - and habitual thinking often leads to the conclusion that the cure is learning how to relax the body.

Naming hyporesponse as a reality in parts of our musculature - equal to hyperresponse - will expand the perception of ourselves - and also our frame for interpretation of the body's signals.

³⁴ The term "intentional movements" related to connective tissue I learnt from Peter Levine back in the 1980's. Intentional movement is a key concept in working with trauma (Levine 1998)

When we are unaware of something we cannot consciously take responsibility for it. Acknowledging the existence of hyporesponse offers an opportunity for taking responsibility.³⁵

We can choose a conscious strategy towards the hyporesponsive parts of us. Knowledge of and experience with bodily strategies - such as building energy and respecting individual dosing - as effective in dealing with hyporesponsive areas - makes it possible to choose to relate actively to the hyporesponsive parts of us.

Once you know something exists - and you know that something works - you have a conscious choice. How do I choose to relate to the hyporesponsive parts of me? How do I on the one hand respect hyporesponse as a defence strategy I will not be able to change in the blink of an eye - and on the other actually be able to reach behind the strategy using a realistic dosing and establish contact to the psychomotor potential lying in the muscles?

Non-acknowledged hyporesponse is often linked to locked one-down roles.³⁶ If I am in a dominant hyporesponsive state I easily see my self at the "victim", "small", "useless", "can't", "someone else has to do it" etc. These roles induce certain counter roles - you invite the other to take over, control, solve things, rescue you or pursue you.

Knowledge of hyporesponse and knowledge of precise methods with an effect on hyporesponse opens an opportunity to step out of these locked role interactions. For instance, I can ask a student/client locked in passivity where they feel a lack of presence in the body. This question alone holds the potential to break locked roles - and to initiate a mutual exploration into the world of hyporesponse.

Where is the giving up located? Is there an impulse to move? If not I might suggest a movement to activate the body area in question - being very precise about dosing. Perhaps the movement has to be very small. Or perhaps the right dosing will be to simply direct attention to the area - acknowledging its existence - or maybe just to put a hand there. Are there other parts in the body that are starting to relax as this particular place gets attention and become alive? Etc.

A journey into the world of hyporesponse can often evoke a sense of hope. Hope that change is possible even in the places where I lost access to my presence and my ability to act. This hope is not evoked by someone else doing it for me. Hope rises from the fact that here is something I can do for myself - perhaps while supported by a contact field.

³⁵ As said elsewhere in this article it is important to respect hyporesponse as a psychological defence strategy. Building presence in hyporesponsive muscles evoke forgotten or never integrated parts of the person - and can only lead to success at a pace that allows these parts to be integrated into consciousness. Focusing on the areas in the body or exercises, where contact to hyporesponsive muscles immediately evokes some sense of internal resource is one way to dose and respect this process of integration.

³⁶ My use of the term "roles" is again inspired by SCT, Systems Centered Therapy. See note 10. (Agazarian 2004). Another important inspiration to my understanding of locked interaction dynamics linked to hyporesponse/giving up, is Karpman's triangle - victim, persecutor, rescuer (Karpman 1973). In my experience hyporesponsive patterns are always represented in hidden interactions between these three roles. I see distinct hyporesponsive patterns in those that carry the role as victim - and hidden often not-acknowledged hyporesponsive patterns in those that carry rescuer and persecutor roles, disguised by extrovert, hyperresponsive patterns.

Appendix A

Use of body activities - training principles in resource oriented skill training.

In this paper you find a description of many years of collected experience about how different forms of working with/using the body can affect muscular response (tension or undertension), - and through that the personality and psychological/emotional material connected to muscular patterns. The following scheme summarises these experiences :

Training principles in resource oriented skill training.

3 main categories of muscular response can be distinguished:

Tension, hyper response corresponds to holding back emotions and impulses

Neutral or balanced response corresponds to having access to impulses and emotions, having free choice available in terms of expression or not

Undertension, hyporesponse corresponds to giving up emotions and impulses

Different physical activities have a different effect on hyper responsive and hypo responsive muscular reactions

	HYPER RESPONSIVE MUSCULAR REACTIONS	HYPO RESPONSIVE MUSCULAR REACTIONS
	Tense, held back	Undertension, given up
STRETCHING has the effect of:	The muscles let go of some tension, - often you feel more alive. Emotions may come up. The person may feel a little turned inwards.	No important effect on the muscles, - or they become further slack/given up. The person may become withdrawn or sleepy.
ACTIVATING BUILDING UP ENERGY (moving doggedly against outwardly given resistance) has the effect of:	The muscles tighten a little. May give an experience of tension - or no effect at all.	The muscles become more active, more alive. Gives experience of being more filled up and being more present. Emotions may come up
RELEASING ENERGY (you tense the muscles and release tension in, action - f.ex. pushing away) has the effect of:	Tension in the muscles is activated and released, which leads to a let go of tension. Often an experience of feeling more alive and having more energy. Emotions may come up.	The muscles end up being even more slack, - often experience a feeling of having become tired or exhausted, when you have used the muscles.
MOVEMENT OF THE JOINTS has the effect of:	Often you feel more alive - in general no change in the tension state or access to emotions/feelings.	Often you feel more alive - in general no change in the tension state or access to emotions/feelings.

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The model presents experience gathered over the years by the group of teachers at Bodydynamic Institute/Bodydynamic International from 1985-2000. Here synthesized by Steen Jørgensen and Merete Holm Brantbjerg.

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