

PREVIEW

The method of Somatosensory Pain Rehabilitation:
Paradigms, Clinical assessments & Treatments (5th ed.)

Chapter 1: THE COMPLEX THOUGHT

To MDs
To patients

To neuroscientists
To therapists

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This first chapter on complex thought is one of the new features of this 5th edition. Its aim is to attempt to provide solutions to the problem of chronicity, i.e. patients whose one-dimensional care management has failed after six months or more. A fracture of the distal radius, correctly reduced by osteosynthesis, causes painful complications in 4.9% of operated patients (Stebler et al., 1994). Thus, the question is no longer whether the surgery was carried out correctly, or whether there is osteoporosis in the bone (*morbus* Sudeck), but rather to consider a constellation of variables, starting with the various pain phenomena evoked beyond the complaint, and to understand both the biological (bone, joint capsule, cutaneous branches, etc.) and the cultural (mother tongue, beliefs, ulterior motives, disability situations, etc.). While it is true that complex thought has existed since the dawn of time, its pioneers, some of whom therapists, still deserve to be better known. Our aim is to present them to you in order to nourish the encounter between the carer and the cared-for. You are welcome to skip them and go straight to part 2: clinical assessments.

A. Definitions

As indicated in the glossary, a **paradigm** is a set of extremely strong supralogical principles and relations for the organisation of thought. Since 2007, the paradigm of the Somatosensory Pain Rehabilitation (SPR) method has been: look for tactile hypoesthesia, because reducing hypoesthesia reduces neuropathic pain (Mathis et al., 2007; Spicher et al., 2020a; Bouchard et al., 2021). This organisation of thought was specific to Certified Somatosensory Therapists of Pain (CSTP[®]). If you have no knowledge that it is possible to stimulate the mechanisms of adaptive neuroplasticity, even twenty months after an organic lesion, you are not going to assess the somatosensitive nervous system or look for tactile hypoesthesia of part of the maximum territory of cutaneous origin of a nerve branch. Nor will you attempt to teach patients to stimulate them several times a day at home. Similarly, if you fail to listen to the painful symptoms that patients express in hushed tones, you run the risk of confining yourself to reductive thinking without being able to initiate complex clinical reasoning within a bio-psycho-socio-spiritual approach.

In 2013, we proposed a **clinical reasoning** process that included two hypotheses (Spicher & Quintal, 2013):

1. The practical hypothesis of sensory geographers: the cutaneous branch presumed to be responsible for the evoked neuropathic symptoms;
2. The theoretical hypothesis: "if the patient suffers from neuropathic symptoms, then they have A β axonal lesions."

In 2020, this theoretical hypothesis, having been supported and adopted by other communities of practice, became an **axiom**:

"When the patient reports neuropathic symptoms, s/he has axonal lesions of, at least one cutaneous nerve branch, including at least one cutaneous branch." they have A β neurofibres." (Spicher et al., 2020b)

Remember, in geometry, when we had to develop a theorem that concluded with a sound "that which had to be demonstrated." This learning of logical reasoning was based on one or more axioms (Εὐκλείδης |Euclid| - 3rd century BC): an element from which knowledge is deduced by rules of logic.

Today, to make our point clearer, we will precede it with a statement of a new **paradigm**:

**The phenomenon of pain is to organic lesions
what the phenotype is to the genome.**

... in the sense that the observable characteristics of a living organism, resulting from the functioning of the genome under given environmental conditions, are a phenotype. Based on the axiom stated above, the phenomenon of pain is the expression of A β axonal lesions of at least one cutaneous branch.

However, this all belongs to the universe of meaning of the concept of paradigm and does not fall within the realm of common sense. This type of complex thinking requires, notably, dual thinking, or dialogic. We are well aware that daring to express the existence of several logics - and not exclusively Cartesian logic, the great paradigm of the West (Morin, 1991, *La méthode*, pp. 1820-1823) - could result in being burnt at the stake:

By saying that the earth is round, when we can clearly see that it is flat, we put ourselves in the place of a deviant, an abnormal almost. When this deduction is contrary to the Scriptures, the statement is blasphemous. Whoever thinks that way deserves to be burnt at the stake. (Cyrulnik, 2016)

Neuropsychiatrist and neuroplastician Boris Cyrulnik is alluding here to the Copernican revolution which, by placing the sun - and no longer the earth - at the centre of the solar system (heliocentrism), created a new paradigm.

Dialogic is a complex unity between two complementary, competing, and antagonistic logics, entities or instances, that feed off each other, complement each other, but also oppose, fight or even exclude each other. The two entities of the dialogic are inseparable and **jointly** indispensable to the understanding of the same reality.

One example of a dialogic well known to therapists is **interdisciplinarity** (Guespin-Michel, 2016). Unlike pluridisciplinarity, which is the juxtaposition of disciplines where each tends to fiercely defend its turf, interdisciplinarity, breaking out of the disciplinary straitjacket, is ‘a process of dialogical assembly of the disciplinary contributions necessary to the analysis of a complex subject.’ (Jollivet, 2002) Thus, the few patients who benefit from an interdisciplinary approach emerge from the weekly interdisciplinary meetings² with an interdisciplinary objective that retroactively generates monodisciplinary objectives (in kinesiotherapy, neuropsychology, physiotherapy, occupational therapy, and so on).

More generally, the dialogic principle, which combines two terms that are both antagonistic and complementary, allows us to maintain **duality** within unity, and even to go beyond this duality. Simultaneously keeping in mind that pain is a sensory AND emotional experience, organic AND psychological, somatic (*soma* ≡ body) AND semantic (*sêma* ≡ meaning); the two together, not one without the other, is a matter of dialogic. Jointly maintaining the three elements: 1. sensory experience 2. AND 3. emotional experience, is complex thought. This complexity is characterised (Morin, 1990, pp. 103-104) by distinction, conjunction and, in particular, implication, because time is required. We will return to this later in this chapter. In the meantime, let us turn our attention to the paradigm of simplicity, characterised by reduction and disjunction ... and so on. **The whole chapter shall count 22 pages. In the second issue of this year – 21(2) – you will discover the first pages of chapter 2: The Phenomenon of Pain.**

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² Also called “case discussions” in rehabilitation centres.