



# A tool to reorient physiotherapy: The use of the field model

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**Keywords:** Bad habits; Evidence-based medicine; Evidence-based practice; Embodied Philosophy; Field model, International classification of diseases; international classification of functioning; Disability; Health; Physiotherapy; Prevention; Trans-disciplinary

**Abbreviations:** EBM: Evidence-Based Medicine; EBP: Evidence-Based Practice; ICD: International Classification of Diseases; ICF: International Classification of Functioning, Disability, and Health

## Abstract

Patients presenting chronic musculoskeletal complaints, dysfunctions and syndromes are advised by various care providers during their recovery process. Most patients present themselves with different comorbidities and underlying dysfunctions. No guideline is available for every dysfunction and every patient's specific context/comorbidities. Since motivation plays a central role in the change of behavior and therapy compliance, good communication between all partners involved enables the best possible (medical) approach.

This paper aims to propose a field model as a means of communication whereby patients are advised the same policies, definitions and reference frames (ICD and ICF) by all professionals.

This field model is in parallel with the one for physicians since both have the same horizontal timeline axis: risk factors, activating factors, and complications. Whereas the medical consists of three domains on its vertical axis (neuropsychiatric, internal-biological, and musculoskeletal), the physiotherapeutic field model uses local tissue damage, regional muscular defense, and central/widespread reactions. Each model therefore provides nine boxes.

Since the physiotherapy model overlaps the physician's third domain, their parallel use will help implement a trans-disciplinary approach.

After the patient and the physiotherapist, as equivalent partners, have filled in the nine boxes, the underlying problem of the patient's complaint will be focused on. From then on, patients can read just their view and the agreed-on policy can be taken closer to the scientific guidelines. It helps patients to enable (mostly secondary) prevention. The model helps to make a shift from a 'motor theory' towards an 'action theory' concept, a really 'embodied philosophy' to tackle a bad habit.

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## Introduction

### From Descartes via Spinoza and Damásio towards the Gibsons

It is an illusion to think that we can live a life without periods during which fatigue and pain are guiding us by offering cues about 'what not to do'. Fatigue, as a first sign, often signals us not to go on with a specific activity for much longer. Needless to say, we are not always aware of what activity is related. Later, pain tells us it is important to stop rather quickly. Easy to understand when we cut ourselves, less easy when it is related to an activity supposed to be carried out further, especially when part of a professional setting.

The question "who/ what will give the signal, the invitation/ the order to stop the ongoing action?" brings us immediately to the Cartesian mind-body dilemma [1]. Not only physiotherapy as a profession is still embedded in this mind-body dichotomy and suffers from it in its fulfillment, but also psychiatry [2].

In 1994, neuroscientist Damásio wrote his first book, "Descartes' error" that stresses a crazy-making dichotomy when talking about 'mind' and 'body'. In his later books, Damásio is deeply inspired by biology when explaining connections between the body, individual structures in the brain and various additional aspects of the mind such as consciousness, emotion, self-awareness, and will. Concepts of embodied cognition, embodied philosophy and 'enactivism' are partly founded on his thoughts and writings [3,4,5,6,7].

When we start thinking, it is by our 'whole body' since there is no disconnection between body and soul, mind or any other concept used to describe what we do not understand in a mechanical, hardware kind of way. Spinoza was able to summarize this in his masterpiece, "Ethica, Ordine Geometrico Demonstrata" that used definitions and axioms trying to explain the relations between different aspects of 'reality' [8].

These short summaries of Descartes' and Spinoza's philosophical framework embed the core of the professional actions coined as 'physiotherapy', recently questioned in 'The end of physiotherapy' [9].

Recently the Gibsons state that what we perceive are not 'realities', but functional relations between 'the self' and 'the world' [10,11]. Their model includes both the internal and external worlds of organisms - animals and human beings. Their model stresses that organisms have to learn how to detect and generates appropriate perceptual information through experience.

Their theory is based on the concept of 'affordances': "The affordances of the environment are what it offers the animal (individual?), what it provides or furnishes, either for good or ill." [10].

The original definition in psychology includes all transactions that are possible between an individual and their environment. The opposite is also true; the lived environment of the observer depends - at the same time - on the individual's current intentions and capabilities.

The Gibsons' model, also called 'ecological psychology', combines top-down and bottom-up processes and is generally taken for granted. Non-neurological pathways are also integrated into this model [12-17].

In motor sciences, this model is labeled 'action theory' and is at right angles to the concept of 'motor theory'. It includes the importance of the body's content, of its context, but also on the organism's habits. This shift from motor theory to action theory has important consequences, especially for the physiotherapeutic approach of their patient's complaints. A shift from 'treatment' to 'rehabilitation' may happen to be possible by creating and exchanging guidelines for policies. In 2013, Withagen gives an overview of the shift of theories: from theories based on Descartes' motor theory towards an action theory based on the works of the Gibsons, Reed, and Pick and Walk [18].

Action theory advantage is the easiness of its connection with the role of the social environment as described by Elias who coined the phrase 'Homo clausus', meaning that we feel as if locked up in our social and cultural surroundings [19]. Ellul [20] emphasizes the importance of changes due to the technological revolution, while Hofstede's work (2005) shows differences between viewpoints related to cultural backgrounds [21]. A modern physiotherapeutic approach should be in parallel with postmodern, bio-cultural medicine as described by Morris in 1998 [22].

This article deals therefore with the important shift from motor theory towards action theory, which is a really 'embodied philosophy'.

When a patient meets a physiotherapist, not only the quantity (the time spent face-to-face) but also the quality of their relationship plays a role in handling the patient's request for help. Both aspects will influence the strategy that will be used by both to accomplish the chosen means.

The next part will focus on this interpersonal relationship between a patient and his/her caregiver/physiotherapist. These relations make, at least on a cognitive level, mainly use of spoken language, but to an often-overlooked part also of 'body language', the cues provided by the patient's body form and/or his/her reshaping of forms. This last topic is important, especially in a physiotherapeutic setting. Giving attention to both spoken and body language, not always running parallel, may help the caregiver to transcend the Cartesian model, especially when 'dysfunction' is a problem to tackle.

Later on, 'language' will be shown to be useful to write down the internationally agreed-upon guidelines based on the available scientific evidence. This is important to propose a policy with the maximum of a chance to help patients to overcome their complaints and underlying problems.

## Interpersonal communications

### A. Changes in body form

Although most people think that language is primal in human 'face-to-face' communication, we may not forget that how we present ourselves to someone else influences interpersonal communication in an embodied way.

Animals communicate by sounds and altering the form of their bodies. When they are happy they are tall; sadness, on the other hand, is expressed by slumping down. Leaning forward shows anger; it is the opposite of disgust. Fear and surprise, unrelated to any direction in space, are also opposites. In fear, the body's form is short and small and the breath is shallow. The body shows surprise when displaying itself long, wide and deep [23]. Ekman [24,25] refined Darwin's observations by showing the existence of facial micro emotions. Whereas the Darwin-

ian view gives us the illusion that we speak with our bodies, it is Gibson's view that we speak through our bodies. Not only our internal dialogue but also what we hear ourselves say, influences what we will say and the way we will say it [26]. A quote by May West (1893–1980) "I speak two languages, English and body!" underpins this sharply.

Natterson-Horowitz, a medical specialist states about a veterinarian: "Bergman, who is tall, with thick, wavy dark hair and a groomed Van Dyke beard, is a veterinarian. He has the calm measured voice and lack of extraneous movement that marks nearly every animal doc I've met" [27]. And that is no surprise, keeping in mind the evolutionary explanation given to the state of primordial awe. Keltner stated that awe should be understood as a hardwired disposition used to preserve low-status individuals in the presence of high-status individuals. It concerns an adaptive attitude, reinforcing social hierarchies. Vastness in body size is a major factor when 'calculating' the danger and is thus a useful strategy for animal and human individuals [28].

Since movement emerges from preconscious deformations, this is an important aspect often not taken into consideration in human rehabilitation. Careful observation of animal locomotion by Pettigrew (1874) led to showing how animals move. Pettigrew's emphasis is on whole body deformation and locomotion [29, 30]. Since the phrase 'deformation' has a negative connotation, the term 'reshaping' will be used here.

## B. Language

We may be conscious of what we say, but we are not always aware of how we express ourselves verbally. The latter is important in rehabilitation since therapists inform patients not only about what to do (or not to do) but also how to do it.

Watzlawick (1967) coined five axioms that, many years later, are still vital and worthwhile to be considered, specifically to the therapist/patient communication. His first, "One cannot not communicate" [31]. Not answering a patient's question may constitute such an answer. Second, "Every communication has a content and relationship aspect such that the latter classifies the former". Both patients and therapists interpret their behavior as a reaction to each other's behavior [31].

Gibson's theory parallels Watzlawick's third axiom: "The nature of a relationship is dependent on the punctuation of the partners' communication procedures" [31]. For example, a patient in a relationship with a physiotherapist wants to get rid of his/her pain; the therapist wants to teach him/her how to move in a more healthily way, but both actors have different 'affordances'.

The fourth axiom states: "Communication involves both digital and analog modalities" [31]. The analog part can be labeled as prosody, that is all the information, including those emerging out of changes in body form, adding (emotional?) meaning to the spoken text [32]. Rhythm, stress, and intonation, relating to the emotional state of a speaking person, are important aspects of every spoken communication. This also finds its way to the physio's clinic. The physician's prescription at times seems to be digital compared to the more analog patient's description of the problem.

In addition to the mentioned modalities, the specific therapist/patient relationship brings us to the fifth and final axiom of Watzlawick: "Inter-human communication procedures are either symmetric or complimentary". A professional therapist/patient

relationship is by nature complementary since interchanges are interactions, based on differences in 'power' between patient and therapist. Both 'players of this communication game' must be aware of these basic principles and agree on their role to establish a procedure that can help the patient achieve his/her aim of a swift recovery. Since vernacular language plays an important role in emerging images, metaphors and paradoxes, it can be used to address the patient's right hemisphere [33-35].

Poerksen states (1995) that words can have active meanings that are clear to everybody. The use of these words in Western languages declined during the last centuries. Contrary to the situation in the past, some words now have a meaning that can be understood differently by different persons. Poerksen coined the term "Plastic Words" to indicate that these words - that can be understood differently by different persons - can be used like Lego blocks. Janov (1970, 1971) quoted him known because he once treated John Lennon, who, after his therapy, called his new band 'The Plastic Ono Band' [36,37].

Let us take the health care 'apparatus' as an example. Poerksen writes: "No one who is healthy talks about her health. Nothing is bothering her; she doesn't lack anything. There is no reason for her to speak of this 'nothing' since she doesn't notice it. She only begins to speak of it when her body forces itself on her attention: then she talks about her illnesses, if they come, or her memory of her pains" [38].

It is therefore not surprising that the word 'health' comes up infrequently in ancient medical / philosophical texts; and when it does, it designates an absence: it means 'uninjured', 'alive'. Whoever was healthy lacked nothing. In our present time, health has become a virtue of which we keenly feel the lack. This lack of feeling healthy has now been implanted in everyday consciousness [38].

Words used in therapeutic relationships are of significant importance, especially when complaints are chronic. The use of counteracting determination by physiotherapists produces chosen affordances that may help to change the patient's bad habits towards healthier ones [39,40].

At the beginning of a physiotherapist session, verbal instructions, applying the above mentioned, can be 'empowered' by touch training to make them less 'plastic' [41]. Touch training can be helpful to parallel the spoken explanation used by the physiotherapist when he/she teaches, for example, a patient how to transform from a standing to a sitting posture [42].

It was Sebastian Frenkel (1860-1931), a Swiss physician and neurologist, and founder of neuro-rehabilitation who developed a successful 'compensatory movement treatment' to help patients with neurological disorders with reduced proprioception as in tabetic ataxia where imagery, seeing and pronouncing daily activities well before starting these activities in their habitual way were fundamental [42-45].

Poerksen used "she" (as third-person pronoun) to refer to the patient. Regarding the rest of this article, 'patient' will be used to indicate patients regardless of their gender. The patient that will be used as an example further on, does identify as male, but could also have been of a different gender.

## C. Language? what language?

In the medical field, the dualistic Cartesian cut between 'body' and 'mind' is commonly used, especially in rehabilita-

tion; you either are referred to a psychologist or to a physiotherapist [46-48]. Seldom both of them use a common vocabulary or concept. Popper's three-world theory could be used to deal with patients' daily functional disorders, especially in the way as worked out by Veening [49-51].

Popper split 'reality' as we live it into three classes of realities: world 1, the world of physical objects and events, including biological entities; world 2, the world of mental processes and subjective experiences; and world 3, the world related to objective knowledge [49]. This is helpful; especially in the way Veening expanded this concept to 'triadism'. His conceptualization makes it possible to apply a novel strategy in health care since it offers tools to bypass the common concept of mind-body dualism. Has the patient to be referred to a psychologist or a physiotherapist?

Fundamentally, it is a division of "the world" in three different kinds of reality, the physical, the mental, and the conceptual. Every part has relationships within but also beyond its limits.

Veening's concept of triadism allows the use of 'puzzles' that may be used by professionals in health care do deal with a lot of problems, including moral questions and to deal with how patients experience their human reality in their 'habitat' [51]. Popper's and Veening's philosophical work can be seen as a practical means to deal with the work of neuroscientist Varela and the work of the mathematician Rapoport [46-48,52-54].

Varela coined the concept of autopoiesis (a system capable of reproducing and maintaining itself) being a pioneer in the concept of embodied cognition [53,55].

Rapoport elaborated on the mathematical model of nineteenth century's Felix Klein [56,48]. It consists of a non-orientable surface, usable as a concept called 'the Klein bottle logic' that could explain the dual recursive relation between sensorial and motor-related data and aspects of living organisms having an embodied content, this in an external context [46,47,54].

Related to the core of the profession of physiotherapists, it is important to state that the work of Damasio, from the point of view of neuroscience, can be used to develop strategies for health care [3-5,55-57].

**- Substantives**

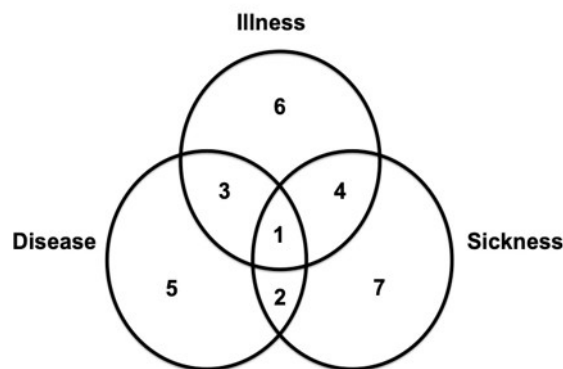
In Dutch, only one word is used to point at a physical problem, "ziekte". Three English phrases usually overlap when talking about patients' physical complaints: disease (for having an objective cause of the problem, proving a diagnosis), illness (for the subjective feeling of someone's physical problems; the 'complaints') and sickness (for the social aspect of one's physical problems).

Veening, in his book on Triadism, offers the possibility to enlarge and explain the description of what is going on with a specific patient and suggests a sharp distinction between the three, based on the works of Boyd and of Hofman [60,61,49].

Hofman presents 'disease' as an objective-physical 'thing' where Veening points out that it is rather related and to be understood as the conceptualizing of a series of phenomena accepted within a medical-professional (sub)culture, which certainly can be an objective-physical phenomenon.

Veening states that a patient may be "ziek" (Dutch phrase) in three ways and being 'ziek' in one way does not imply be-

ing 'ziek' in another way: having illness doesn't mean having a disease or being sick. Three different sets of 'ziekte' and seven possible subsets are shown in Table 1 and Figure 1.



	Illness	Disease	Sickness
<b>Type A</b> ('standard')	Yes	yes	yes
Type B	yes	yes	no
Type C	yes	no	yes
Type D	no	yes	yes
Type E	yes	no	no
Type F	no	yes	no
Type G	no	no	yes

**Figure & Table 1:** Combinations of illness, disease, and sickness, based on Twaddle's model of the triad by Hofmann [60]; the breakdown of the possibilities assessing a patient at a medical/physiotherapeutic practice. Note the parallels between A and 1; B and 2; and so on.

**- Verbs**

In many languages it is the verb that reveals what is happening and is used as the key to an understanding what is going on or what actions are. Actions can be seen as 'work' as it is defined in physics and are therefore related to energy expenditure. One important aspect of a shift from 'motor theory' towards 'action theory' is the importance of spoken cues delivered by the therapist and used by the patient. Indo-European languages mostly use two kinds of verbs that are inextricably related to how persons are going to move or function: transitive or intransitive verbs related to the influence of gravity on objects to be moved, and thus unconsciously prime the way persons handle jobs they have 'chosen' [62].

It will not come as a surprise to know that eminent movement researcher Bernstein was of Russian origin. It is interesting that the Russian language has different kinds of verbs that relate to the effect of movements [63].

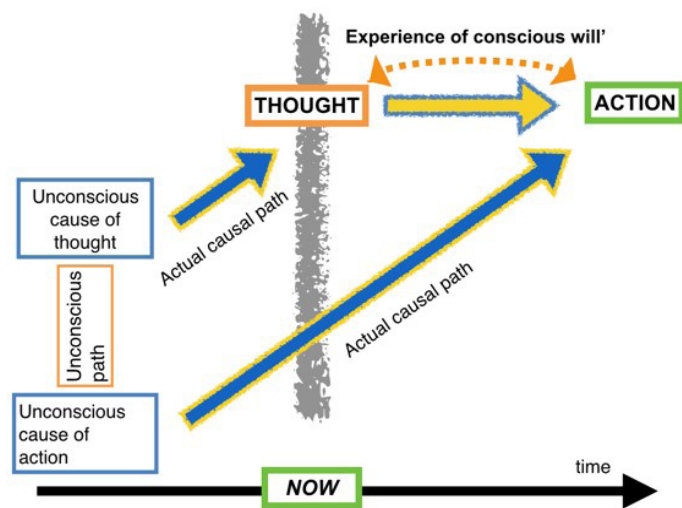
We will illustrate this with the following example and the much-appreciated help of Leonid Blyum. In English there is only one way of using the root 'go' and 'describing your forthcoming journey to Paris': "I am going to Paris". In Russian, thanks to the use of prefixes and suffixes, there are multiple ways of using the root verb 'going to' and conveying different messages. "Я уезжаю в Париж" / "Ya uezhzhayu v Parizh" means "I am going to Paris and I am not coming back (at least for a very long time)". On the other hand, the expression "Я еду в Париж" / "Ya edu v Parizh" has a different meaning: "I am going to Paris and I will be back soon".

So, in English the phrase “I am going to Paris’ does not give any indication about the intended outcome of this action. Will he/she stay there or not? In Russian, the verbs have an emerging quality of what will happen after the ‘action’ has been completed, with pointers embedded into the verb itself.

**D. Language in relation to the timing in the brain**

Communication, especially in a physiotherapeutic setting, consists not only of spoken language including its prosodic elements. It includes also body language, and often 'touch training'. The latter can be seen as tools to instruct patients about what and how to change their functioning to achieve certain goals with the least ergonomic effort and all this to influence the steering of the organism as a whole [41,64].

Not only Darwin’s and Ekman’s concepts but also Watzlawick’s axioms can be substantiated by concepts emerging from neurology. Wegner in 2003 shows that specific conditions are needed to change the way subjects move and have to be established well before the mover is even aware of starting a movement, see Figure 2 [31,65-67].



**Figure 2:** Pre- and sub-conscious causes of thoughts leading to language paralleled by pre- and sub-conscious causes of action are leading to changes in body form, reshaping of the body form, leading to movements (related to objects in the surroundings) and eventually to changes of one’s position in space. Both streams are interlinked, using different unconscious paths. The understanding of knowing that language - mostly - arrives too late to influence a patient’s way of moving constitutes one of the main findings of modern neuroscience research and its applications in modern rehabilitation strategies. Since it is always ‘now’ (presented with the grey vertical line) and every ‘now’ is always different, although it follows a timeline (horizontal black line), specific cues will be needed to change ‘bad habits’ to more salutogenic ones [68,62].

Concerning Gibson’s ‘action theory’, this means that language used in therapy, especially when the means of actions have to be changed for the better, has to be ‘received’ by patients well before they – unconsciously – start to move. Apparently, brain time is different from clock time [67].

Language, then, has to be understood by the patient as a request, not as a command. Using metaphors and paradoxes is of importance too, since patients have to search for other ways simultaneously exploring all available sensorial data, to let something happen that is not similar to their usual dysfunctional habit. Cues that have the specific aim to change ways people move have been coined “representational manipulative cues” [62]. They are supposed to anticipate actions in order to influ-

ence “the means used” by the patient “to gain his/her end” using F.M. Alexander’s words [69-73,42].

**E. Language in a physiotherapeutic setting**

In a classical physiotherapeutic setting, and importantly during the assessment, two persons meet, each having a body with a specific form, speaking a specific language - not always the same mother tongue – perhaps colored by a specific dialect and each with a ‘brain’ with other histories, expectations and affordances. Their communication, including a double recursive setting, consists of different intertwined factors.

Such situations are possible since a person - be it a patient or not - is not always able to express him/her self since in his/her mental world no words can be found to express what is going on the person’s body and no concept can be found to express themselves.

Nevertheless, all parts of their communication have to be used to solve a puzzle of the uttered complaints by the patient and to classify them to offer a policy that is consistent with Popper’s world 3, the falsifiable word of concepts and logic for both patient and therapist.

An example of the importance of the proper use of language is the commonly used phrase by patients diagnosed as suffering from ‘chronic fatigue syndrome’: “I have CFS” [74]. They had better not use the verb ‘to have’ in these settings. Also, most patients use phrases like ‘exercising’ and ‘doing my utmost best’. Phrasing their aims in such a way influences the means used [75,76,66]. It seems to be compliant with their therapist’s phraseology, but it is not ‘for their own good’.

Language is also needed to classify the patient’s complaints since it is helpful to have a frame offering different policy solutions in order to look for the one that will offer the greatest chance to help the patient’s complaints and his/her request. Such a frame is offered by two international classifications, one of the diseases and the other related to functioning, disability, and health. Without any classification, no guidelines can be applied. The same holds for therapeutic results [77].

**The need for classification**

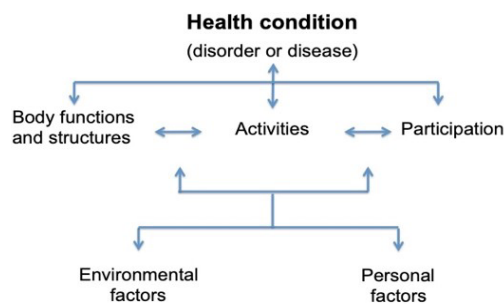
At least two people meet in a professional setting. The patient, who asks for help and the therapist who wishes to provide help. Both with their bodies (Popper’s world 1), and with their feelings (Popper’s world 2), and both with their ideas and concepts about their bodies and feelings (Poppers’s world 3) and both using reasonable, parallel communication strategies. Most of the time, medical textbooks and articles relate to average patients, although they may be very precisely described. The unique patient who is standing, sitting or lying in front of the therapist with his/her particular history needs to be offered a policy based on Popper’s third world, the world of falsifiable concepts to provide strategies offering opportunities for a recovery that is as fast and as complete as possible for being adapted to each patient.

The following two sections deal with the effort made by different official organizations, especially the World Health Organization, in devising language to classify patients’ complaints and physical signs.

**A. International classification of diseases (ICD) and international classification of functioning, disability and health (ICF)**

The International Classification of Diseases (ICD) is a list of diseases - based on various criteria - drawn up by the World Health Organization. This list is used by physicians, physiotherapists, occupational therapists, speech therapists, and other therapists. The aim was to come to common epidemiology and terminology in order to communicate with patients using a similar scientifically underpinned framework (<https://www.who.int/classifications/icd/en/>).

Whereas the ICD criteria depart from 'disease', the International Classification of Functioning, Disability and Health list (ICF, see Figure 3) departs from the functional problems uttered by patients (<https://www.who.int/classifications/icf/en/>). This shift can be seen as paralleling the shift from 'motor theory' towards 'action theory'. By considering the way the patient participates, thus related to a degree of sickness, in his/her social environment, more factors can be added to the use of ICD criteria.



**Figure 3:** This Figure shows the basic idea regarding the concept of the International Classification of Disability [78].

During the physiotherapist's assessment, patients are seen concerning their functioning, their activities, and their participation in their specific contexts. Both, environmental factors and beliefs (propositional attitudes) interfere and play an important role in recovery, this in parallel to the use of the ICD criteria.

As an example, the assessment of a patient complaining of sharp low back pain, provoked by bending forward and long uninterrupted sitting, and where no tissue damage could be established. In this specific case, ICF criteria were more helpful than the ICD criteria.

Drawing up a trans-disciplinary and efficient treatment policy by way of combining ICD and ICF criteria information is very useful.

By nature, the physiotherapist's job is leaning more to ICF than to ICD criteria. The former offers a way to transform the patient's limitations into opportunities - into more suitable affordances to use Gibson's phraseology - to counter lesion progression and recidivism and in doing so to provide a fast recovery and to prevent chronicity [80].

**B. ICD and ICF? From theory to practice**

The left and middle columns in Table 2 detail classical and recent interpretations of ICF criteria [79]. The right column, added by the authors of this paper, points out the practical/theoretical implications of the ICF criteria.

**Table 2:** Left and middle columns summarize various publications by Hulleger et al. (2011, 2012, 2013) [77,36,37]. The right column shows consequences of implementation.

Classic interpretation	New interpretation	Practical use / comments
<ul style="list-style-type: none"> <li>tissue dominant = approach</li> </ul>	<ul style="list-style-type: none"> <li>context interaction = dominant approach</li> </ul>	<ul style="list-style-type: none"> <li>knee patient living on 3rd floor</li> </ul>
<ul style="list-style-type: none"> <li>each component has its own 'function'</li> </ul>	<ul style="list-style-type: none"> <li>various components are interacting</li> </ul>	<ul style="list-style-type: none"> <li>emergent / non-linear / game theory</li> </ul>
<ul style="list-style-type: none"> <li>physiotherapist emphasizes muscles, bones, tendons</li> <li>assessment of residual function</li> </ul>	<ul style="list-style-type: none"> <li>movement quality before quantity</li> <li>emphasis on neuro-motor steering of body parts and the body as a whole</li> </ul>	<ul style="list-style-type: none"> <li>a shift from open- to closed-loop movement patterns</li> </ul>
<ul style="list-style-type: none"> <li>importance of recognizing local disorders</li> </ul>	<ul style="list-style-type: none"> <li>the physiotherapist is able to:                             <ul style="list-style-type: none"> <li>- assess the way a patient deals with his/her disorder,</li> <li>- to assess his/her performance</li> <li>- to quantify his/her limitation</li> <li>- to observe the patient's coping strategies</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a meniscus injury of a butcher differs from the same injury of a full-time office employee</li> </ul>
<ul style="list-style-type: none"> <li>truncated: organism / activity / participation</li> </ul>	<ul style="list-style-type: none"> <li>patient's intentions, the corresponding actions and the necessary changes in participation cannot be seen as isolated items</li> </ul>	<ul style="list-style-type: none"> <li>'Body in pieces' to 'Body in Peace' [64]</li> <li>the 'whole' of the organism should always be taken into account when establishing a treatment policy</li> </ul>
<ul style="list-style-type: none"> <li>Cartesian thinking: mind-body duality</li> </ul>	<ul style="list-style-type: none"> <li>introduction of: 'actions / context effect' through bio-psycho-socio-cultural and philosophical reflection</li> </ul>	<ul style="list-style-type: none"> <li>the patient's context</li> <li>triadism</li> </ul>
<ul style="list-style-type: none"> <li>ICF: no direct relationship between syndromes, dysfunction, and level of activities and participation</li> </ul>	<ul style="list-style-type: none"> <li>relationship between tissue damage, function and participation is not one-on-one</li> </ul>	<ul style="list-style-type: none"> <li>the patient is only 1 % of his/her total time in the physiotherapist's practice</li> <li>how you exercise precedes how much you exercise</li> </ul>
	<ul style="list-style-type: none"> <li>the type of verb (whether transitive or not) influences the action's condition</li> </ul>	<ul style="list-style-type: none"> <li>rather 'études' than exercising</li> </ul>

## Evidence based practice (EBP)

McGilchrist is a strong promoter of the use of metaphors [33]. A very useful example is presented by Veening when he addresses 'mind' and 'body': "So: a person can be seen as a married couple, as a whole but still with the/ one 'body' and with a/ the other 'mind' "[51].

So, in a physiotherapeutic practice, we always meet the "married couple", body and mind always enter the physio's practice [51]. What part – or should we say 'which partner' - is to be 'addressed/helped' first, or do we need another metaphor to answer that question?

Schwartz (2004) states, "'patient autonomy', although sounding positive, more often than not means a shift of the burden and responsibility from someone who knows something (the physician, the physiotherapist, etc.) to someone who knows nothing and who suffers, namely 'the patient'". Evidence-based practice has diverse, interacting concepts and players. Preferably, the different actors, the patient and his/her care providers share a common viewpoint regarding the uttered problem.

The physiotherapist is asked and supposed to be compliant with the patient's hopes and desires, but still has to do so parallel to existing guidelines. Often this equals being in a straddling position. The (prescribing) physician proposes solutions from a viewpoint rather related to ICD than to ICF criteria. Regarding insurance companies, only controllable and manageable procedures form the core of their viewpoint. All this means that at times, the patient – as a person - is left alone 'in the dark'. This problem is certainly not restricted to physiotherapy. The same straddle can be detected in psychiatry where the Diagnostic and Statistical Manual of Mental Disorders is used to classify and to recommend treatment options [81].

Both ICD and ICF classifications use the same linguistic method to describe their specific aims when dealing with different concepts of disease, illness, and sickness.

### That is important since

- The overlap between Popper's World 1 concept of the physician (disease as an objectifiable concept) and
- The more World 2 concept of the physiotherapist (focusing on the more subjective World 2 concept of the subjective aspects of functions and illnesses)
- Have to overlap in using the ICD and ICF criteria, part of World 3.

By using triadism as described by Veening, a very promising method could be implemented to overcome communicational pitfalls between care providers of different kinds and their patients, each one presenting him/herself as a unique physical body [51].

In a recent article, a psychiatrist was questioning whether the body could not be put more centrally in the policies used. Morris states that this would be uttermost important to implement a trans-disciplinary approach targeted at the patient as a whole [2]. The opposite can be argued from the physiotherapist's point of view, how the 'mind', the steering part of the organism, could be upgraded in every day's practice.

In circumstances when the 'motor theory' is used, the same complaint can lead to different treatment methods and can even be dissimilar to what the patient expects. Therefore the

authors prefer the concept of 'policy' rather than the concept of 'treatment'. The term policy resembles procedures to translate the patient's complaint into an underlying problem and to frame that problem in an approach that can be understood by the patient, who normally speaking will be a layperson in this matter. Using the phrase 'policy' will also offer advantages for other healthcare providers working with the same patient. Therefore, the authors will try to use Gibson's 'action theory' to provide the means to apply another approach or other policies as was earlier suggested in the Field Model for Physicians [82].

Depending on the country's legislation and social security, the patient can try to get help at a physiotherapist's clinic, whether or not referred by a physician. If referred, the physician and the physiotherapist may or may not know each other. When they have worked together before, tacit knowledge can play a major role in the policies used [83].

Primary health care patients show up in most physiotherapy clinics as a consequence of the posture and motor apparatus disorders with a mixture of disease, illness and sickness components embedded in their complaints. Their complaints can be classified as 'functional' and are mostly related to the patient's day-to-day activities, including sport and leisure, as perpetuating factors [84]. This means that these complaints can be labeled as illnesses since they often cannot be objectively proved nor measured. Just by the fact that patients consult a health care provider proves that there is a component of sickness concerning their activities, be it professionally or at home. There is also a difference between a person who consults for a minor ache and another person who consults when complaints are already severe for a long time.

The Dutch Association of Physiotherapy states: "The physiotherapist focuses on the human movement put in a background of healthy functioning. The physiotherapeutic field is supported and backed up in this by the medical sciences and behavioral sciences" [85].

In order to simplify the remaining sections in this article, the authors will include only an example taken from the musculoskeletal domain. So, organ problems (lung, heart), psychological/functional problems (depression, ADHD) or neurological problems (Parkinson's disease, stroke) will not be dealt with here although a similar shift can be noted [86].

Concluding this section: to approach musculoskeletal patients the correct way, both ICD and ICF criteria can be used to 'translate' the scientific knowledge into EBP procedures.

### A novel theoretical model

Taking into account the above-described concepts and being in need to simplify and reform the habitual way used during assessments of patients, to ameliorate the communication between care seeker and care provider - in this particular case a physiotherapist - the question emerged: "how to do this".

It was a captain of industry who once told the main author that "A, the patient wants to receive, B, the care provider wants to deliver and that C, the institution/insurance company which has to pay for it is not present at that time" proposed a serious problem for society and health care. This remark led to the start of a quest that many years later evolved into this article as a prolongation of the one written for physicians.

Several years ago, the main author in collaboration with physicians [81] proposed a model to deal with chronic patients

presenting themselves with different functional somatic syndromes, the Physician's Field Model [87,88].

When describing the Physiotherapist's Field Model, we will embed the concept of 'sickness-illness-disease' into the Medical Field Model as well as in the Physiotherapist Field Model.

**A. The medical field model for physicians**

The model for physicians enabled them to make a reliable reconstruction, in concert with the patient, of the problems and complications like pain, fatigue, etc. The model also pays attention to underlying causes. Table 3 shows a reduced version of the original presented by Declercq et al (2010). It pictures a female patient whose major complaints are exhaustion and pain all over the body using two axes, each having three subheadings leading to nine 'fields'.

**Table 3:** A reduced version of the Field Model for Physicians, only showing the most important topics. For the complete model, see Declercq et al, 2010. On the vertical axis: Neuropsychiatric, Internal-biological, and Musculoskeletal. On the horizontal axis: Risk factors, Activating factors, and Complications. Both axes produce nine boxes.

	Risk factors	Activating factors	Complications
Neuropsychiatric	• traumata	• overload	• fatigue • depression
Internal-biological	• often ill during childhood • hypertension • syncope	• food intolerance • allergy	• apnea syndrome • obesity
Musculoskeletal	• neck pains after car accident	• neck surgery • arthrosis	• inactivity • overall pains, but bearable

Table 4 shows the medical field model for a male patient, aged 32, with a common musculoskeletal problem at the center of his complaints and as the main reason for consulting his physician. Later in this article, the same patient will be pictured in three different stages; the acute stage, the chronic stage (six months later), and the complicated stage (twelve months after the acute stage). We will try to point to certain aspects of illness and sickness along with this fictitious case.

**Table 4:** This Table shows the Medical Field Model of the patient in the acute stage as he/she will be referred by his/her physician to a physiotherapist of his/her choice.

	Risk factors	Activating factors	Complications
Neuropsychiatric	• 'good sports syndrome'		
Internal-biological	• tendency towards obesity	• high beer consumption	
Musculoskeletal	• practicing sports	• his promptness to start competition	• sprained / distorted ankle

**B. Towards the field model for physiotherapists**

In the following paragraphs, we will try to combine the above-mentioned concepts of ICD/ICF, the medical field model, and triadism to come to a practical way to implement these concepts when assessing patients and working trans-disciplin-

ary with the (referencing physicians. But first, some history. The aim is to stress the importance of patients' compliance from the very start that will lead to fast recovery and fewer costs.

At the 1992 Second World Conference on Myofascial Pain and Fibromyalgia in Copenhagen, Denmark, the first author presented a poster as an attempt to put the spotlights on the problems encountered daily at a physiotherapy practice. Table 5 delivers an overview of the items of this poster [89].

Three levels are described. The top-level shows somatic disorders of the musculoskeletal system, the middle level shows myofascial pain, and the bottom level shows fibromyalgia [90]. What could be done at the physiotherapist's clinic is outlined on the left side. On the right side, activities are listed that should be proposed to the patient to be performed at home, at the workplace, and during sports activities.

**Table 5:** The layout of the poster presented at the Second World Conference on Myofascial Pain and Fibromyalgia in Copenhagen, Denmark in 1992 [89].

	At the physio's clinic	At home, at the workplace, and during sport activities
Somatic disorders of the musculoskeletal system	<ul style="list-style-type: none"> <li>• information / education</li> <li>• movement training</li> <li>• ergonomics</li> <li>• physical stress straining</li> </ul>	<ul style="list-style-type: none"> <li>• use of passive stress reduction materials</li> <li>• active stress reduction techniques</li> <li>• home therapy program</li> <li>• re-integration in job, leisure and sports activities</li> </ul>
in addition to the previous category		
Myofascial pain	<ul style="list-style-type: none"> <li>• 'intermittent cold and stretch' and muscle dry needling</li> <li>• individual local muscle circulation training</li> </ul>	<ul style="list-style-type: none"> <li>• muscle stretch exercises</li> <li>• specific local muscle circulation training</li> </ul>
in addition to the previous category		
Fibromyalgia	<ul style="list-style-type: none"> <li>• back school</li> <li>• day planning</li> <li>• sleep school and relaxation</li> </ul>	<ul style="list-style-type: none"> <li>• general functional and cardiovascular training</li> <li>• the patient must continually and without deviation follow the physical and psychological guidelines</li> </ul>

The structure of the poster was consistent with the principles of the 'gate control theory' of pain as described by Melzack and Wall (1965) who developed their theory based on experiences with veterans of the Vietnam War. Its basic model has been improved over the years [91]. Only much later the authors understood that each level influenced all other levels [92-94,46,47,52].

All levels interfere and influence each other towards a state of sensitization [95].

Parallel to the development of the physician's field model, the authors were able to translate the patient's complaints



into functional problems that have to be dealt with using ICD and ICF criteria. The three original levels (somatic disorders of the musculoskeletal system, myofascial pain, and fibromyalgia) have been changed in the meantime into three ‘domains’: local, regional and central. The left/right division between ‘at the clinic’ and ‘at the patient’s home situation’ has been replaced by the same three domains of the physician’s model: risk factors, activating/reducing factors, and complications (Table 6).

After having acquainted himself with the patient, the physiotherapist can invite whether or not it is all right to use a specific way to understand the request for help. It only consists of taking a large page, preferably A3 size, and the explanation of the two axes involved. Then, as the patient tells his/her story, the physiotherapist can fill in the boxes. After having noted down all this, the physiotherapist and the patient, together, as equivalent partners, discuss the diverse potentials regarding his/her future life. Once filled in and lying ‘between’ both partners, a different color can be used to highlight the main handles to be taken into account. In doing so, the proposed policy can be taken closer to the scientific guidelines, as well as to the patient’s estimations, personal and environmental factors.

**Table 6:** The Field Model for Physiotherapists. Three domains are noted down as follows: Local tissue damage, Regional muscular defense, and Central/widespread reaction. In the examples of the three stages, the terms are just called local, regional and central.

	Risk factors	Activating / Reducing Factors	Complications
<b>Local:</b> tissue damage			
<b>Regional:</b> muscular defense			
<b>Central:</b> widespread reaction			

Usually, it is easy to distinguish complaints with and without somatotopy [96,97]. Patients are not always able to point out where they feel their complaints are localized, using their hands to pinpoint a specific point or region on their body. Adding “Here it is”, or rather “Well, here and also there.” Sometimes they communicate more by gestures than in words: “Everywhere”.

**Table 7:** The physiotherapist’s field model for an acute sprained ankle: Only a local problem? A and R are used as symbols for activating and reducing factors.

	Risk factors	Activating / Reducing Factors	Complications
Local	<ul style="list-style-type: none"> <li>• rip off fracture left outside ankle 8 weeks ago during a skiing trip</li> <li>• 2 weeks of local plaster</li> </ul>	<p><u>A</u>• in stretched out position: active moving off the ankle and toes</p>	<ul style="list-style-type: none"> <li>• slight swelling and pain</li> </ul>
		<p><u>R</u>• alternating hot and cold baths</p>	<ul style="list-style-type: none"> <li>• tensed muscles around the ankle</li> <li>• loss of peroneal strength: 20 %</li> </ul>
		<p><u>A</u>• long walks <u>A</u>• while sitting, sliding foot forward and backward</p>	
Regional	<ul style="list-style-type: none"> <li>• cramps in the calves</li> </ul>	<p><u>A</u>• teaching / getting up during the night</p>	
Central	<ul style="list-style-type: none"> <li>• ‘sport is healthy, we have to keep moving after all’</li> <li>• belief: ‘no pain, no gain’</li> </ul>	<p><u>A</u>• ‘stress’</p>	<ul style="list-style-type: none"> <li>• keeps asking when he may practice sports</li> </ul>

Tackling the sensitization - the fact that patients can complain of (regional and/or widespread) pain, and/or fatigue without major tissue damage – has been well explored by Jo Nijs and his team [95,98].

Therefore, the three domains and stages can be denominated rather quickly. Often overlapping combinations exist, although the patient is seldom able to distinguish them. Then the filled in field model can help the patient to separate certain aspects to explain and understand the complaints.

The use of this model makes possible an important shift for both the physiotherapist and the patient. The physiotherapist is able to use new concepts in approaching the patient. The patient is able to understand a change in policy aimed to become an active partner, an ‘actient’, rather than a passive patient.

Not the complaint, but the underlying problem has to be focused upon, not only by the physiotherapist during the time spent at the clinic but also by the ‘actient’ when at home and even during leisure and sports time.

**The field model for physiotherapists applied**

Most of the time osseo-facial, commonly called musculoskeletal, problems show an onset phase called acute [93]. The chronic stage begins when symptoms are still present six months later. Without the necessary policies, this chronic stage eventually evolves into a ‘complicated’ stage. The following three subsections will confer examples of the three stages for a ‘common’ injury, a sprained ankle in a male patient. Note the evolution from small tissue damage (objectable and related to disease) towards aspects of evolving dysfunctions (illness) and its influence on participation in different habitats (sickness).

**A. The acute stage during its first weeks...**

Two weeks after the removal of a plaster cast, a physical education teacher presented himself at a clinic with a prescription for physiotherapy that reads, “Sprained ankle, 18 massage sessions, and exercises”.

For the time being the patient can still walk without too much trouble. The following field model (Table 7) maps the situation:

Once the boxes are filled in, it becomes clear to the patient that his complaint, in this case, his ankle trouble, is not an isolated injury, but that it can and has to be put in a larger frame, including physical, mental and conceptual components. The request for help will be changed from: "I am suffering ankle pain and it should be taken away" into "What can be done to be able to function in the event of mountaineering, or resuming my job as a teacher of physical education, or practicing sports, etc.?"

By engaging this model, the patient himself can spontaneously assess the situation. If the physiotherapist's policy would be proposed without presenting this kind of frame and without the patient's cooperation, then a classic "Yes, but" or "No, because" reaction would be the emerging response. Using the field model will avoid these unfavorable reactions and attitudes.

**B. After six months, complaints have become chronic**

In medicine, chronic pain is considered to last for a long time, although the distinction and overlap with (episodes of) acute pain are sometimes difficult to make. Most often a three months period and a six months period are used as markers. Others use the time frame of twelve months to point to the transition from the acute to the chronic state [99,100]. We prefer the phrase complicated when complaints last for more than twelve months [101].

Suppose a patient who is not offered or does not accept a chance to change his/her attitude at the acute stage, then there is a great risk that the appropriate adjustments will not be implemented and his/her 'case' will evolve during the next six months to more complications (possibly with the same prescription at the same clinic or somewhere else).

In this stage the model (Table 8) will now look like: locally everything has remained the same; but regionally, new components have materialized. These regional complications and clinical findings (like myofascial dysfunction of the calf muscles and tense neck muscles, objectifiable, disease-like components) go hand in hand with the increased restrictions like shorter walking distances (a more subjective, illness-like component). A lot of patients showing this condition are reporting problems when having to stand for a prolonged time, having social, sickness-like components.

What was still purely 'local' in the acute stage can progressively be classified rather as regional and chronic with more functional/illness and more socially dysfunctional/sickness components. Moreover, other aspects, less tied to the primary physical injury, become obvious. It is evident that the patient is worried about his job situation and his expectations of the activities during the approaching holidays. What will the social/work-related aspects become in the near future? Practicing sports is now a far cry.

**Table 8:** The physiotherapist's field model for the consequences of an acute sprained ankle: six months after the injury, a local problem has become a chronic, regional one. Differences with the previous model of the acute stage are noted in a skewed mode. A and R are used as symbols for activating and reducing factors.

	Risk factors	Activating / Reducing Factors	Complications
Local	<ul style="list-style-type: none"> <li>• rip off fracture left ankle outside 8 months ago during a skiing trip</li> <li>• 2 weeks of local plaster</li> </ul>	<ul style="list-style-type: none"> <li><u>A</u>• overload during active revalidation</li> <li><u>A</u>• in stretched out position: active moving off the ankle and toes</li> </ul>	<ul style="list-style-type: none"> <li>• slight swelling and pain</li> </ul>
		<ul style="list-style-type: none"> <li><u>R</u>• resumption of work</li> <li><u>R</u>• alternating hot and cold baths</li> </ul>	<ul style="list-style-type: none"> <li>• tensed muscles around the ankle</li> <li>• loss of peroneal strength: 40 %</li> </ul>
		<ul style="list-style-type: none"> <li><u>A</u>• long walks, Running</li> </ul>	
Regional		<ul style="list-style-type: none"> <li><u>A</u>• restless legs during teaching</li> <li><u>A</u>• standing for a mere 5 minutes</li> <li><u>R</u>• watching TV</li> </ul>	
Central	<ul style="list-style-type: none"> <li>• 'sport is healthy, we have to keep moving after all'</li> </ul>	<ul style="list-style-type: none"> <li><u>A</u>• stress reactions because of the inability of practicing sports</li> <li><u>R</u>• spending more time with family</li> </ul>	<ul style="list-style-type: none"> <li>• spreading pains</li> </ul>
	<ul style="list-style-type: none"> <li>• belief: no pain, no gain</li> </ul>	<ul style="list-style-type: none"> <li><u>A</u>• relation under stress: frequent quarrels with a girlfriend about the approach of the ankle trouble</li> </ul>	<ul style="list-style-type: none"> <li>• a changed relation with (sports) friends weighs heavily on his mind</li> <li>• brooding, tired after getting up in the morning</li> </ul>

**C. A year later the situation has become 'complicated'**

At this stage, the physical education teacher presented himself at the practice of another therapist where the field model was used by default for every patient, regardless of the complaints. During the intake interview, the patient still puts his complaints at the core of his concerns. The physician who wrote the original prescription was not consulted any longer.

The physiotherapist's field model at this stage looks like this (Table 9):

**Table 9:** The Physiotherapist’s Field Model for complicated consequences of what started more than a year ago as an sprained ankle: a local problem has become a widespread complicated chronic syndrome with drawbacks on the patient’s personal life. Differences with the previous models are noted in italics. A and R are used as symbols for activating and reducing factors.

	<b>Risk factors</b>	<b>Activating / Reducing Factors</b>	<b>Complications</b>
<b>Local</b>	<ul style="list-style-type: none"> <li>• rip off fracture left outside ankle</li> <li>• 14 months ago during a skiing trip</li> <li>• 2 weeks of local plaster</li> </ul>	<i>A</i> • overload during active revalidation <i>A</i> • active moving off the ankle and toes	<ul style="list-style-type: none"> <li>• loss of volume of calf muscles</li> <li>• tissue hardening</li> </ul>
		<i>A</i> • resumption of work, the patient stopped going to work and stopped most of his activities <i>R</i> • alternating hot and cold baths	<ul style="list-style-type: none"> <li>• tensed muscles around ankle, femur, and pelvis</li> <li>• loss of peroneal strength: 60 %</li> </ul>
		<i>A</i> • even small walks, impossible to run <i>A</i> • while sitting, feet can slide forward and backward, only for a short time	
<b>Regional</b>	<ul style="list-style-type: none"> <li>• stiff painful calves all-day</li> </ul>	<ul style="list-style-type: none"> <li>• restless legs</li> <li><i>A</i>• standing for a mere 5 minutes</li> <li><i>R</i>• watching TV</li> </ul>	<ul style="list-style-type: none"> <li>• has to get up during the night</li> <li>• non-restorative sleep</li> </ul>
<b>Central</b>	<ul style="list-style-type: none"> <li>• questioning whether ‘sport is healthy, we have to keep moving after all’</li> <li>• belief: ‘no pain, no gain’</li> </ul>	<i>A</i> • stress-reactions because of the inability of practicing sports <i>and other social activities</i> • spending more time with his family	<ul style="list-style-type: none"> <li>• overall pains: in 14 out of 18 tender points</li> </ul>
		<i>A</i> • relation under stress: frequent quarrels with his girlfriend about the approach of the ankle trouble and a lot of daily familiar activities	<ul style="list-style-type: none"> <li>• a changed relation with (sports) friends weighs heavily on his mind</li> <li>• depressed feelings when thinking of his future...</li> </ul>
		<i>A</i> • relation under stress: frequent quarrels with a girlfriend about the approach of the ankle trouble	<ul style="list-style-type: none"> <li>• brooding, getting up tired in the morning</li> <li>• out of bed at 10 o'clock</li> </ul>

The ‘complications’ spell out that the ‘whole body’, the whole system, is affected [94,101]. Pains, aches, and other problems are no longer situated in the region of the primary injury. The patient’s abilities to counter gravity have been compromised, there seem to be problems with the patient’s coordination leading to mental confusion [103,105,94].

Not only are the surrounding tissues implicated in bracing the original tissue damage, but the whole body is responding in parallel to ‘protect’ what once was just a local ‘injury’. The ‘motor theory’ does not provide the necessary explanations to start a policy founded on sound principles.

‘Central’, generalized complaints have gained the upper hand in the lower right boxes. This domain is related to autonomic dysfunctions and the manner of directing and protecting the entire body [105]. This time, at the intake anamnesis, physical examination and clinical tests reveal that the patient does not adopt a natural posture, because he keeps a firm exogenous, vision-based position in space [16]. Not only are his eyes shifty, but there is also remarkable basal unrest, often detectable by a jerkiness of motion [84,106].

Regarding these generalized complaints; the term dysautonomia or autonomic dysfunction could be very useful. When the autonomic nervous system does not work properly, dysfunction in different subsystems occurs [107].

Not all autonomic dysfunctions may be classified as purely neuropathic, a lot has to be linked to ‘bad habits’ due to over- or underuse, and to a mismatch with the so-called modern sur-

roundings and conditions (work, ergonomics, modern ways of transport, communication, etc.). Syndromes like chronic fatigue syndrome, fibromyalgia, spasmodia, hyperventilation, and many others are rather common in typical primary care physiotherapeutic settings [108,88,109].

It is important to mention that often comorbidities exist and that patients present themselves with a cluster of different functional problems, often a combination of a local, a regional and a generalized problem [110].

**From care to cure**

It helps patients when both their physician and their physiotherapist use a common strategy based on the filling in their respective field models. Each/both filled-in paper(s) will help as a kind of overview, proving that the care provider really has listened to what the patient has expressed, an overview that already provides a timeline. The underlying problems/causes on the left, the complaints on the right, interrelated with daily functioning as can be seen on various Tables above. Timelines are an important aspect of stories and are needed to link a lot of seemingly loose facts and figures. Using different colors or for instance a few lines in a different color can be added to point to a specific strategy needed offering new insights.

This way of communication offers a change from what both the physiotherapist and the patient had in mind as ‘a treatment’, most of the time compatible with the motor theory concept, towards a policy based on the action theory including their active participation and will help them to be compliant

with the agreed-upon policy, emerged out of the use of the field model(s) [111]. The guidelines as presented by ICD and ICF criteria remain in force, all the while.

A few remarks about the results of scientific research in the field of rehabilitation and physiotherapy:

- It is important to distinguish the results of physiotherapy being prescribed and results obtained after the patient followed a physiotherapeutic program, either when it regards 'exercising' or 'relaxation'. Compliance in exercise and relaxation groups was found to be very low [112,113].

- Since the home time is more than 99 percent of the total time and the patient is only for short periods of time (three sessions of 30 minutes for example) in a face-to-face situation with his/her physiotherapist (either at the clinic or at home) it is important to stress this aspect and to help patients in facing their responsibilities in parallel with the use of the field model, this beginning right at the start of using the model.

Using this field model could, therefore, make a difference in the treatment outcome, whatever the patient's complaints, problems or condition he/she may be in. Using this strategy, any patient will feel acknowledged as being a whole person, accepted in all the aspects, contexts (family, job, hobby, sports, etc.) and the hopes to get the correct attention.

It is clear that using the field model while assessing the patient, the physiotherapist's knowledge as a scientist of movement and (mal)function is at the patient's disposal to meet his/her real request for help in such a way that he/she will understand his/her complaints and dysfunctions in such a way that he/she will feel that he/she really can contribute to a speedy recovery.

Patients can re-adjust their view during the time spent at the clinic from "I have a problem with my ankle" to "What do you think I should do to have fewer problems in the future and continue my life without all that fuss?" All this will shorten the 'timeline' towards a full and safe recovery since the propositional attitudes will have changed for the better during the time not being face-to-face with their therapist.

Patients are then enabled to make the shift from 'what is wanted' towards 'what is needed'. This will influence what they understand regarding the 'why' and the 'how' they have to change their old, dysfunctional habits [114]. New perception/action links have to be actively implemented by each patient until they generate new, salutogenic habits.

Like in an autopoietic system as defined by Varela, these novel, salutogenic habits are not perceived as feeling 'ok' by the patients at the beginning, it will take some time to be felt like 'normal', before they are felt as 'habitual' [52,107]. Following these principles allows physiotherapists to make a fundamental change from a motor theory related to 'care' towards the action theory more related to 'cure' [115].

### From treatment to prevention

#### From determinism to a 'preparatory set'

Addressing the way and advantages of working with field models, a few concepts will be explained, although not exhaustively.

Determinism as a concept seems to be orthogonal with the concept of prevention used since the mid of the 15th century and coming from Middle French 'prévention'; the phrase stands

for "action of stopping an event or practice" and came from the late Latin word "praeventionem" meaning 'action of anticipating' (<https://www.etymonline.com/word/prevention>).

In the main author's 2007 book *Body in Peace*, an addendum was added - *Quest for Time* - to deal with 'determinism' in the rehabilitation of patients. The concept of 'representational manipulative cues' was proposed to consider the technique of priming oneself to counter deterministic procedures to have an influence on one's bad habits and to progressively adopt novel, salutogenic ones [64].

A recent article describes the concept of a neurological 'preparatory set' as an underemphasized phase of the organism's response to a challenge [105]. This 'set' influences the way how events will be handled involuntarily and simultaneously involves posture, autonomic activity, affect, attention, and expectation. It can function in an adaptive or a maladaptive way.

Mindfulness-Based Stress Reduction [116,117] the Alexander technique [118,119] and Awareness Through Movement [120-122] are some of the approaches trying to change this preparatory set for the better. The Alexander technique and Feldenkrais' Functional Integration make use of touch training [41].

#### Prevention and its stages

For a long time, three stages of the concept 'prevention' have been used: primary, secondary and tertiary, only recently a fourth, quaternary prevention has been presented [123].

Primary prevention is used to prevent disease, illness, and sickness before the first signs or complaints show. In this regard, legislation is important (seat belts, helmets, etc.) but also education regarding safe and healthy habits concerning moving, eating, sleeping. The concept of 'lifestyle medicine'/'leefs tijlgeneskunde' and 'Positive Health'/'Positieve Gezondheid' as proposed by Huber are being developed in the Netherlands and are very promising from this point of view (<https://nilg.eu>, 2018, <https://iph.nl>, 2019).

The term secondary prevention is used when problems and complaints have already occurred and negatively influenced a person's functioning. In that case it is important to focus on personal targets related to the specific underlying dysfunctions. Most of the time, long-term problems can be avoided. For the evolution of complaints and dysfunctions, see the evolution from the acute stage in Table 7, towards the chronic in Figure 8 and the complicated in Figure 9. Medication, a rehabilitation program, counseling and (temporary) a modified work condition are part of the secondary prevention procedures.

The next modus is tertiary prevention, meant to soften the impact of the on-going chronic triade with different mixes of predominantly very individualized dysfunctions, disease, and permanent impairments. Patients can be helped to improve their functioning and quality of life. The support of third persons, even fellow sufferers, acting as a buddy, plays an important role. Job changing may also be part of the strategy as well as rehabilitation [124].

A fourth stage, 'surveillance medicine', has been described by Goderis considering the avoidance of unnecessary examinations and interventions and 'care'. This stage focuses on ethically acceptable interventions and patients' safeness [123]. Note that this fourth level was already 'predicted' by Illich in his 1976 book 'Medical Nemesis' [125].

It does not come to a surprise that prevention is easier after a single peak overload, still reasonable after repetitive submaximal overload, but rather difficult in the context of long-term, uninterrupted, and low static load [126]. In patients with comorbidities as proposed in Table 9 regarding the complicated stage, it is important to provide a mix of sub-targets/policies, never forgetting the ones aimed at influencing the steering of the whole for the better since it influences directly the regional and local conditions.

Health care providers, using both field models, play an important role in supporting their patients' autonomy and competence. Motivation plays a central role in the change of behavior that is needed. It could help to prevent patients' burnouts [127-131].

Ending this section which dealt with prevention measures for the patients, we have to stress also that the health and the professional's gender are related to implementing the Physiotherapist's Field Model, since it may diminish the chance of developing a state of burn-out, a condition already observed in students of the profession as well in those who practice it [132,133].

### Advantages of using the field model

Since no guideline is available for every dysfunction and by nature not for every patient's specific context, making the shift from a 'motor theory' to an 'action-based' policy becomes possible using the field model strategy. It can be helpful to outline the best possible (medical) approach with a patient following the physiotherapist's approach concerning ICD/ICF data from the start. So, assessments of patients, including their associated comorbidities, can be seen as a vital part of the patients' evaluation.

There are four main reasons for a physiotherapist to work within well-defined frames. First, to provide care/cure, the strategy used by the physiotherapist should be based on sound, scientific arguments [134, 49].

Second, since the physiotherapist's work happens parallel with the physician's, both professionals make use of the same scientific knowledge. It is important to mention the overlap between the third domain of the physician's field model (the musculoskeletal domain) and the nine fields of the physiotherapeutic model. Furthermore, both models' vertical axes are parallel: Risk factors, activating factors, and complications. This makes it easy for patients to understand what is told to them, what is to be done and that it is the right thing to comply with the proposed strategy. Moreover, the surplus and overlap value of this professional cooperation can be coined '9 + 9 = 15'. Without such an overlap, trans-disciplinary work is less easy.

This approach can be seen as an implementation of the concept of Twaddle and Hofman shown in Figure 1 and Table 1. After filling in the field model, after physical examination and taking stock of the yellow and red flags [134,135], the physiotherapist may propose a policy, based on ICD and ICF criteria that can be discussed and agreed upon by the patient [135-137].

Robert Swezey's (1978) model, a bit revolutionary at the time, can help us outline a policy to address the patient's ongoing dysfunctions on all levels: local, regional, and overall. The basic idea is that the time spent by patients at home, at the workplace and in their leisure time is a lot longer than the time spent at the physiotherapist's clinic. Secondly, the way patients

move during the day is of greater importance than how much they move. Swezey (1978) targeted at specific visual instructions and 'schooling' as a way to change the patient's habits for the better.

Visual instruction is part of his approach regarding local tissue damage. Note that the main author designed a deck of cards with images to influence the use of the body as a whole (targeted to generalized complaints) for the better, called 'Eye-scans' [94,87,138-140].

Once both patient and physiotherapist have accepted an outlined strategy, the approach can be classified under the heading of 'enaction' [141-143].

This is a characteristic of all teaching and learning methods to optimize motor skills. When the patient is not progressing as could be expected at the start of the treatment program, this should be communicated to the other care providers, certainly also to the family physician.

A third reason is hardly ever thought of. It is the viewpoint that the significant third party, be it the husband, other members of the family, acquaintances or other people should not be overlooked. If patients have no options to explain to them what exactly is their problem, the reason for not functioning as usual, significant thirds will try to help their 'peer' by figuring it out for him or her and will even propose solutions and use occasionally other approaches [144,145,77]. Especially when dealing with autonomic dysfunctions/syndromes, or not-well-defined or understood medical conditions/comorbidities, this is of major importance. Since the patient is part of his/her ecological system, these factors have to be taken into consideration [81]. "If the significant thirds are part of the problem, they are an obligatory part of the solution" (146,147,124).

Another important third parties that exists in our modern societies that cannot be ignored, namely the Government and the (National) Health Insurance that (at least partially) pay for the medical expenses. The procedures, tests, devices, and products prescribed by both physicians and physiotherapists should, therefore, be founded on scientific evidence concerning value and usefulness to counter disease, illness, and sickness.

Last but not least, there are the patients. They always should be the core (in French, le coeur) of the approach aimed at helping to discover their 'core'. They are entitled to hear and understand what is going on.

A coded system of communication between the (prescribing) physician and the physiotherapist is of importance for the patient as well as for the controlling physician of the mutuality/insurance company and the governmental part of the health department.

In this respect, using the field model makes it easy to rephrase the patient's primal request for help to get rid of his/her pains or other complaints into a request for help regarding underlying problems.

### The beginning of physiotherapy

This section will present a short overview over the origin of physiotherapy, that is Swedish gymnastics and other forms of movement therapy.

#### From mono-professionalism...

It may seem peculiar to start this section referencing to sha-

manism, but before medical science became professionalized, one person did all healing, particularly in cultures that knew no writing [148]. All hope for this life and afterlife was in the hands of just one person: the shaman. He was the one who made contact with 'the higher powers', provided health care and gave advice. Peterson (1992) states that later professionals originated from this man of many jobs: the physician, the lawyer and the priest and last but not least the psychologist. Moreover, she states that the boundaries between these professions are not yet clear.

Europe, after the dark ages, was influenced by two major tendencies, both coming from the Middle East, one from the South and another from the North [149]. From the south - via the north of Africa - 'alchemy', later chemistry, found its way hither. Since 1800, most of the science of massage, osteopathy, physiotherapy, gymnastics, biomechanics has come from northern Europe via 'Germania' as a heritage from ancient Greece, Egypt and Iran with links to Chinese Confucianism and Taoism concepts that paid a substantial attention to the body as a whole [149].

In 1890 Virchow proposed an adagio of the medical science stating that the cause of diseases is to be found in the building stones of the body [150].

Through time physicians delineated their field to a clear mono-discipline. Later on, when subjective disorders - also called mental disorders - had to be treated, a new era was heralded: The dualistic Cartesian psychosomatic view. With the increase of new theories, techniques, and treatments, there was a progressive development of (sub)specialties. For example, in 1954 the Belgian National Health Insurance acknowledged nine specialties. In 2014 this number had grown to 29 and an additional 140 sub-specialties [151].

The 'apothecary' was once allowed to prescribe medicines, but already from the year 1240 onwards, he was only allowed to prepare them and sell them. From the seventeenth century onwards dentistry was considered a separate medical profession.

Apart and parallel from that, many (para)medical professions came into being: (home) health care/(home) nursery, the midwife, the occupational therapist (ergo-therapist), the speech therapist, the audiologist, the chiroprapist, the dietician, the physiotherapist, and many others.

As concerning physiotherapy, the history starts with Per Ling (1776-1839), the great-great-grandson of Olof Rudbeck who discovered the human lymphatic system. It is possible that Ling was inspired by Chinese body exercises. Both Ling and Thure Brandt, who specialized in gynecological gymnastics, are considered pioneers of Swedish medical gymnastics. Manual therapy was added progressively [152,153].

At that time already, there was a bifurcation between those who wanted to work with the physicians - they represented the more conservative practice [154] - and those who saw 'exercising' as a substitute for everything else.

The more extreme section was related to Henrik Kellgren. His son-in-law, Edgar Cyriax, was a therapist who later became a physician in Scotland and wrote a book about his father-in-law's practices [155]. The images included in his book show that the aim was rather to help the patient to move in a different way than to force him/her on a specific level.

Edgar's son was James Cyriax, a British physician who worked in London's St. Thomas Hospital, and is known as the 'father of orthopedic medicine'. His work was influential in the areas of sports medicine and physical therapy [156].

Later, the United States delivered new concepts. One is the domain of myofascial pain (characterized by trigger points) as worked out by personal physician of President John F. Kennedy, and using dry needling and vapocoolant sprays to relieve pain.

David Simons (1922 - 2010) who co-authored 'Myofascial Pain and Dysfunction, The Trigger Point Manual' together with Janet Travell (1901 - 1997) [83,105] later made the link to the domain of tensegrity as described by Steve Levin, a novel view on Borelli's (1608 - 1679) lever-based biomechanics [157].

### Towards trans-professionalism

In 2017, David Nicholls published his ominously titled book 'The end of physiotherapy' [9]. Our physiotherapist's field model, in parallel to the one used by the physicians, can be used for a resurgence of the profession in a modern, redefined work context.

When these last decades induced an unprecedented decline in mortality, this happened parallel to an increase of morbidity [158]. In our Western industrialized and fast-changing world, professional attention is caught by symptoms and complaints suggesting an underlying connection and cohesion with this relatively novel environment.

Regarding the 'core business' of physiotherapy, we cannot discard the fact that our postmodern, industrialized context differs dramatically from ecological surroundings we evolved from. Homo erectus transformed into Homo sapiens comput-erensis in no time, measured on an evolutionary scale. Lieberman (2013) made a list of what he called 'mismatch diseases' (including fibromyalgia, chronic fatigue syndrome, and other syndromes) that are socio-psycho-physical side-effects of the rapid shift from pre-historical to contemporary environments and cultures. Complex functions in a rapidly changing environment beget complex malfunctions. Most mismatches parallel complaints of pain and fatigue, but also myopia, acid reflux, acne, anxiety, asthma, certain cancers, and depression, next to Type 2 diabetes, flat feet, high blood pressure, irritable bowel syndrome and osteoporosis.

Related to fibromyalgia, Yunus (1998) stated that therapy outcome is difficult to predict yet related to the amount of physical activity and medication [159]. In an attempt to deliver a survey of advances made in the approach in the last twenty years he wrote: "Ideal treatments for fibromyalgia patients should be individualized with emphasis on active patient participation, good health practices, and multimodal intervention, incorporating non-pharmacologic and pharmacologic treatments" [160,161].

The bio-psycho-social approach by Engel (1977) made communication easier between diverse professionals in the field leading to intra- (professionals of the same disciplines regarding the same patient), and multi- (professionals of different disciplines not discussing mutual patients), inter-disciplinary work (professionals of different disciplines this time discussing their mutual patient). Most of the time, in interdisciplinary work, each attendant remains within his own (sub) domain [162].

Only during trans-disciplinary communication, participating members can discuss topics outside their scientific domain, this is cooperation at large. With trans-disciplinary work, the dis-

ciplinary boundaries fade and professionals partly move into each other's field of activity in confidential cooperation. People start working across the usable borders and sometimes take over tasks from each other. In a trans-disciplinary team, the knowledge of each other's professional competencies is high, which is useful for jointly drawing up policy planning. The result of this process is that a common vision can be reported to the patient [163].

The next step might be to let the patient have a voice as a full member of the team [164]. Abicht wrote: "When these prostrate 'cases' have got to their feet again by some specific information and a warm invitation to cooperation, a revolutionary change of thinking about illness and healing will take place" [165].

It is not unusual to the common physiotherapist to realize that patients' complaints are imbedded in an accustomed, acquired social way to deal with the outside world, neither does he/she commonly allow for the different aspects of communication including language's prosody [166].

Interestingly, perhaps the simple 'tennis elbow' as described by James Cyriax is not the same elbow compared with today's 'tennis elbow' [156,167], since the same anatomical structure is now part of a body that differs in functioning from the 'tennis elbow' of a few decades ago. Today's bodies are using different 'software' than the ones in former times. 'Modern' patients have informed themselves by 'googling' about their complaints, but unfortunately, in most cases, they are left with more questions than answers and are in dire need of information from professionals. Novel approaches are needed to help them - help themselves - to implement the changes needed in their personal life.

### Not the end of physiotherapy

The physiotherapist, as a professional and as a human being is part of this 'new' patient's contexts and expectations. This has its consequences for a profession with a central aim and core mission statement: to make people able again, which is the central idea of rehabilitation and thus also related to the concepts of illness and sickness, as well as to aspects of a disease.

The function to tackle in most patients is related to a habit, a bad habit. On the patient's and the therapist's side this calls for a new approach, requiring certain efforts. A more suitable relation and a novel strategy of helping both parties to come to an understanding as partners, heads in the same direction by using the field model as described above. This will help both parties to make a paradigm shift from a linear Cartesian to a Klein bottle-based strategy using the affordances as described by Gibson and to make a shift from applying a motor- towards an action-theory. It describes the policy, thus the relations between a living body's content, its context and the motor control system, being a dual recursive relation between sensory- and motor-data and thus linking time and space related aspects, a so-called Klein bottle-based strategy [14, 10, 16, 46,47, 168].

This transition is novel, not the least for physiotherapists who have generally been trained to use the older motor-theory-based paradigm. Fine-tuned individualized policies, parallel to ICD and ICF guidelines for the three domains (local, regional and central) will be needed in the future.

In Sweden, primary healthcare has been running the SPAP (Swedish Physical Activity on Prescription) project since 1991 to

activate people in their activities of daily living. Their philosophy will also become important in other countries [169-171].

For example, in Belgium, the BOV – 'bewegen op verwijzing' – 'moving on (medical) referral' project, already started in Flanders [172]. This could go into the directions as proposed by de Ridder, former head of the National Sickness and Invalidity Insurance Institute [173].

Does all this mean that providing pure 'care' will not be possible? It is the authors' opinion that working in a trans-disciplinary way will spread responsibility among all health care providers. The authors think that - ethically, especially cases only providing care - the patient must be told that the approach provided has to be understood as care and not as a cure [174].

Since scientific knowledge is on the therapist's side and the latent knowledge is on the patient's side, the best approach for both 'sides' is to participate in a joint venture, sharing the available information. Then the physiotherapist will become a counselor, and the patient an 'actient', freed from being paralyzed by the paradox of choice - the negative side of patient autonomy [175]. Working together the way as described, progression of an injury and recidivism will get less chance. Greater therapy compliance, with lower drop out figures and better functioning, will result in faster recovery and lowers the costs for all parties.

It is obvious that this process will not always go smoothly. Techniques of practical philosophy are useful to help patients when expressing "Yes, but" reactions (176-178,51).

All this is meant to prevent situations in which proposed scientifically underpinned strategies are not parallel with the approach agreed upon at the start of the program. This confusion should be avoided at all costs to minimize drop out [113,112].

An application monitoring and helping compliance of patients during the time they are not in the physiotherapist's practice could also influence therapy outcomes [179,180].

Restricting us here to the professional contribution to the well-being of fellow citizens does not mean that we underestimate the important role of volunteer aids and self-help groups and those patients that, from the very start of a problem succeed in using an appropriate lifestyle (<https://nilg.eu>).

### Conclusion

This article is a succession and extension of the field model for physicians [82]. During the development of writing this article, we chose not to include content related to therapies of whatever kind, exercise, manual therapy, and many others. This is a 'quest' for a next article.

In physiotherapy, it is primarily not only about (complicated) ankle fractures or tissue injuries on just another level. Populations of patients tend to be greatly varied; in patients with a loss of function in an organ, like in lung and heart rehabilitation, a more global functional approach is already in use. The authors are well aware of the fact that this article mainly deals with patients in the neuro-osseo-fascial domain and does not take into account other domains of today's physiotherapeutic interventions.

To make the needed paradigm shift from an approach based on the 'motor theory', as was common from the start of physiotherapy as a profession, to what is now called the 'action theory' (and thus also on the Klein bottle logic), we propose the

use of a field model, together and parallel to the field model for physicians. This can be done specifically in reports concerning assessment and therapy results of common patients.

The physiotherapist's field model can be used as a means of communication, not only with patients but also with (prescribing) physicians when discussing patients, since both professions will use the same definitions and the same reference frames, ICD and ICF.

From both field models emerged the '9 + 9 equals 15' paradigm, offering advantages for all players involved.

By using the field model during the intake interview, substantial advantages will emerge for the patient, for the physiotherapist and many third parties. The addition of factors different from the patient's initial complaints will change his/her first view: he/she realizes that 'being treated' for his/her complaint is not the sole option. This guarantees the prospect to tackle the important underlying dysfunction of his/her posture and movement apparatus.

It is safe to propose now that this field model for physiotherapists, parallel to that for physicians, constitutes a technique that enables care to move in the direction of cure. Secondary prevention gets a greater chance [181-183].

It also aids patients, their significant thirds and the institutional organizations of health care and insurance companies. Patients, free of the disadvantages of patient autonomy, will, more than ever before, be at the core (le coeur, le corps) of the setting [175].

Mostly this will involve 'Therapy for the whole person' [184]. Gerald Stanley Lee already wrote in 1922: 'I propose to have health that looks after me' [185]. It constitutes a real frame to implement participatory medicine [186].

From the literature which you can find below and after years of working in the discipline, closely working together in a transdisciplinary way with physicians and colleagues, we could compose the following axioms when dealing with chronic patients. The axioms are consistent with Hulleger's concept of 'solution space', a theory-driven model based on several key theoretical concepts in the domain of human motor control to comprehend the emergence of a variety of generally appropriate movement patterns during the recovery from an injury [187].

As a final summary, and as an answer to the question of what the patient can expect from the physiotherapist after having filled in the field model, the following three practical axioms and their consequences can be used.

## Annex

### NOVEL POLICIES TO HELP PATIENTS WITH CHRONIC MUSCULOSKELETAL COMPLAINTS, DYSFUNCTIONS, AND SYNDROMES

#### AXIOM 1: WHAT TOOK TIME TO EMERGE WILL TAKE TIME TO VANISH

When properly dealt with, acute osseo-fascial problems (damaged tissue) heal in 6 to 8 weeks. When not, chronicity sets in and the organism starts to reorganize its structure. Specific policies will be necessary to deal with a new (chronic) situation: a 'civil war' between the bottom up (biotensegral, mechano-transductional) and the top-down (neuro-muscular transductional) components.

#### AXIOM 2: LIVING ORGANISMS ARE QUASI - CLOSED SYSTEMS

Living organisms – as a whole - are known to be autopoietic. They use a dual, although interlinked, steering system. One part is closed (self-referring) using endogenous data and more related to the mechano-transductional subsystem, having intrinsic healing properties; the other part is open (in relation to the environment) using exogenous data and more related to the neuro-muscular subsystem and data in order 'to fit'.

When prolonged in 'unsafe' conditions, exogenous data overrule endogenous data and the steering 'overclocks'. As a result, 'abnormal' strains and stress reactions emerge. The economical default state (we coined this as the 'run on idle' modus) progressively changes towards more costly 'bad habits' (coined as the 'employed' state) and 'autonomic dysfunction' sets in. Unfortunately, patients mistake their 'employed' state as a 'run on idle' mode, since their system lacks procedures to deliberately return to their salutogenic way of being and doing.

#### AXIOM 3: THE 'RUN ON IDLE' MODE SHOULD REMAIN THE DEFAULT REFERENCE STATE

The default body shape, in its 'run on idle' mode, is omnidirectionally expanded ('long, wide and deep') and in its least energy-consuming mode. Energy expenditure will be compared to the default state, be it the economical 'run on idle' or the strained 'employed' state.

The more 'economic' the reference state, the more chance there is that a function will get started and the goal will be achieved.

#### CONSEQUENCE 1: THE SYSTEM HAS TO BE FOOLED TO RETURN TO THE 'RUN ON IDLE' MODE

A counter-deterministic approach will be needed to return to the 'run on idle' mode. This asks for a 'deconstruct': destructing the bad habits, while at the same time, constructing the intrinsic system's procedures.

Specific cues (Representation Manipulative Cues) aimed to manipulate the patient's habitual representation by fooling his/her deterministic habitual procedures, will be needed to return to their former 'run on idle' state. Changes in the organism's content and context do also play a major role.

#### CONSEQUENCE 2: ENGAGEMENT IS REQUIRED OF DIFFERENT PARTNERS!

The time spent at the physiotherapeutic clinic is approximately only 1% of the patient's total time (home, work, hobby) and is insufficient to counter a patient's bad habits. A novel approach, based on the outlined three axioms, has consequences for all partners involved: for the 'therapist', for the patient, and last but not least for those 'partners' not physically present in the consultation room: the significant third (be it family, colleagues) but also the 'government', or assurance companies, who often pay a major part of the fees.

'Not without engagement' can be the motto for the three partners involved, at least when the aim is to solve or to reduce the patient's complaints.



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