La notion de clivage chez Ferenczi

Body Psychotherapy from Pierre Janet onwards:
an enquiry on the dynamics of psychological states
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The Place of Body Psychotherapy in relation to other mainstreams of Psychotherapy, Lisbon EABP Congress, September 2014
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1 The subject of this paper is based on a keynote presentation given in September 2014, at the EABP Lisbon congress. I have also added of useful developments on psychology presented in Utrecht, in November 2014, to the body-mind section of the Dutch Association of Psychologists (NIP). The NIP has filmed the Utrecht conference. New ideas crept up during the writing process. A shorter version could appear in the International Body Psychotherapy Journal, at the end of 2015.
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For Braudel there is no single Mediterranean Sea. There are many seas — indeed a “vast, complex expanse” within which men operate. Life is conducted on the Mediterranean: people travel, fish, fight wars, and drown in its various contexts. And the sea articulates with the plains and islands. Life on the plains is diverse and complex; the poorer south is affected by religious diversity (Catholicism and Islam), as well as by intrusions – both cultural and economic – from the wealthier north. In other words, the Mediterranean cannot be understood independently from what is exterior to it. *Any rigid adherence to boundaries falsifies the situation*.2 (Wikipedia article on Fernand Braudel, 7.2.2016)

2 Italics are mine.
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Preface

We have several times noticed how the evolution of sciences follow a bizarre path. Some issues seem to fascinate the mind of philosophers, scientists and the general public for twenty years, then, without being able to know why, these issues disappear; they now seem insignificant, ridiculous, one does not even mention them. After forty or fifty years, the question reappears, attracting interest again. (Pierre Janet, 1929, L'évolution psychologique de la personnalité, chapter XXII, p. 228: my translation)\textsuperscript{3}

This internet publication is a mix between preparatory texts and power points used for conferences given during the autumn of 2014, in Lisbon and Utrecht, for body psychotherapists and clinical psychologists. The text has not been polished. It is still work in progress, in a raw state. However, it may contain interesting bits and bits pieces, which is why I publish it on the web. A shorter and more rigorous version of this content should be published in the *International Body psychotherapy Journal*, at the end of 2015.

Since its first version, published in January 2015, I keep modifying the text. I am gradually realizing that after successfully (given the aims of the project) finishing a book on a historical vision of the field of body psychotherapy, I remain haunted by issues that I still find puzzling. These issues gradually became increasingly explicit when Thomas Riepenhausen slipped a banana skin under my feet. He asked me to present a specific theme at the 2014 EABP congress he was preparing in Lisbon, with his Portuguese colleagues. This I considered an honor. He hoped I could briefly provide tools that would help body psychotherapists to integrate the knowledge developed by other forms of psychotherapy as constructively as possible, and ways of explaining the content of our expertise to other schools in a way that may be useful for them. What was announced to the participants of this congress, in the program, was that my “talk has two complementary aims: providing a definition of body psychotherapy that corresponds to how it is developing today, and situating this development in relation to other mainstream approaches such as behavioral, cognitive, psychodynamic and systemic therapies.”\textsuperscript{4} The issue seemed, on the surface, simple enough. I was to represent the point of view of body psychotherapy, and then put it in dialogue with a psychoanalyst expert in issues concerning psychosomatics, who finally did not come; and Isabel Gonçalves, a psychotherapist who uses Cognitive and Behavior therapy. Liane Zink, from the Brazilian Bioenergetics association moderated the discussion. All I had to do was to see in what way out three approaches, and maybe others I was familiar with, could become increasingly complementary.

However the systemic theoretical vision I tend to defend, shows that undefinable forces always emerge as soon as one analyzes how a person A interacts with persons B and C. The same can be said when one discusses how a psychotherapeutic approach A

\textsuperscript{3} Nous avons déjà remarqué à plusieurs reprises combien l'évolution des sciences suit une marche bizarre. Des questions paraissent passionner l'esprit des philosophes, des savants et du public pendant une vingtaine d'années, puis, sans qu'on sache bien pourquoi, ces questions disparaissent: elles semblent insignifiantes, ridicules, on n'en parle plus du tout. Au bout de quarante ou cinquante ans, voilà la question qui reapparaît avec un intérêt nouveau. (Pierre Janet, 1929, L'évolution psychologique de la personnalité, chapter XXII, p. 228).

can be enriched and enrich psychotherapeutic modalities B and C. My unease increased when after the Lisbon presentation, I was asked to talk for a whole day on the history of body psychotherapy to members of the Dutch Associations of Psychologists (body-mind section). The unease was not caused by this invitation, as I felt once again it was a great honor; but by the continuous impression that I was formulating the premises of my subject in an unsatisfying way. It was as if I suffered from a form of mental Daltonism that was preventing me from making all the necessary distinctions required by my subject. The difficulty with Daltonism is that one cannot realize through one’s experience that one does not perceive different colors or themes, and that the feedback of others is difficult to integrate. As we are here in matters that are strongly associated with opinions, I may not have integrated what colleagues were telling me when they referred to what I manifestly did not perceive in an explicit way. Yet, somehow, their remarks landed on my inner hard disk, and kept emerging in and out of my conscious thinking from time to time. It is also true that although I continue to read new authors, I have an intellectual history. I am quite willing to integrate new ideas, but not at the price of losing better old ideas when they exist. Some of these thinkers were friends of my family, others my teachers, and others are personal discoveries who played an important role in my development and of some of my close friends. Others of my generation may have given more importance to intellectuals I more or less ignored, but that is the basis I speak from. This one aspect of my character that may be close to Janet, who is, as you will see, a new ancestor I just discovered.

After the presentations of Lisbon and Utrecht, and a few others, I decided to put together what I had said during this autumn in a rough sketch. What emerged was a growing sense that I know of no good definition of the field of psychotherapy, and how it relates to neighboring fields such as psychiatry and my privileged field, which is psychology. If I do not have a structured representation of the field of psychotherapy, how can one propose an understanding of how to increase constructive associations between psychotherapy modalities? What follows summarizes some points that arose as I slipped on the banana skin Thomas Riepenhausen chucked under my feet, with the hope that in the future psychologists and psychotherapists can construct a more explicit discourse on what is emerging anyway? It is likely that there are a few good books on the subjects I should have read, but it also became evident that many colleagues share a mental Daltonism that is similar to mine. If some can give me good advice on this matter, I will gladly take it. I am not excluding my psychiatric colleagues from this discussion, to which they manifestly belong; but I will focus my discussion on the domains of my training, which is experimental psychology and psychotherapy.

One of the points that stuck me was that the well-known rift between academic psychology and psychotherapy often support the notion that the history of psychotherapy follows, at least before the Second World War, the history of psychoanalysis. I noticed that I, like many others, have fallen in this trap, and that to recover my balance I must now find a new vision of the history of psychotherapy. The other well-known trap is to perceive the history of psychotherapy with conceptual glasses taught by psychotherapy schools. One then has the impression that one has an “objective” view of the history of our field,

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5 The conference has been filmed and is now on YouTube: (https://www.youtube.com/watch?v=KjgFzcMKZns).
while often all we learn from this vision is that we fell in the trap of thinking that we are the only ones who really know. Such a school specific historical vision of the history of psychotherapy can be useful, as it will highlight events that are often left in the back-ground by colleagues trained in other schools. An interesting introductory article on this theme is Ernst Falzeder’s 2012 article on Jung and Freud, as he was working on the history of Freudian psychoanalysis for decades, and is now working with the Jung institute in Zurich. However, we need articles that are well-informed on points of view developed in a wider range of schools, as in George Downing’s 1996 book on body and words in psychotherapy (see also Heller 2012, chapter 22). After having consistently analyzed the history of psychotherapy as a discipline created by Freud for more than thirty years, I recently followed the advice of colleagues to situate the beginning of psychotherapy in 1889, when Pierre Janet published his thesis on automatic forms of thinking. His book can be used as the apex of a triangle that delimits a space in which most existing forms of psychotherapy can be situated. The only novelty Janet did not expect is the inputs of social sciences such as Anthropology, which supported the development of systemic therapy (through Gregory Bateson), Ethno psychiatry (through Georges Devereux), and even psychodynamic movements such as Jung’s (through James George Frazer, Joseph Campbell and others) and Lacan’s (through Claude Levi-Strauss and Ferdinand de Saussure). If one begins with Freud’s psychodynamic vision, the apex of our triangle is much smaller. The development of psychotherapy becomes an initial contribution full of external inputs that generate a quasi-chaotic development. I now agree with my colleagues that beginning with Janet rather than Freud leads to a much clearer vision of what contemporary psychotherapy is about. Janet himself, as we shall see, defined a field of research that deals with the psychological analysis of people who suffer from psychopathological diseases. He never imagined that a unified field of research would end up into becoming specific schools of thought that could exclude serious researchers who did not agree with the dominant stance of a school.

If rediscovering Janet has become fashionable and useful for certain psychotherapeutic circles, those that have forgotten him have the excuse that Janet’s contribution to psychology had an excellent reputation (he sometimes taught in the College de France), but is not extensively discussed in major classics of the history of psychology. He was not a genius, and was well placed in his youth when he was an efficient member of Charcot’s team. A rare exception is The Principles of Psychology by William James (1890), but that was in the 19th century. This respectable stance is well represented by one of Vygotsky’s comment made in the 1931 on Janet, on a topic that Vygotsky knew particularly well:

At this time, we will not solve beforehand the problem of how true in essence the theory of speech proposed by Janet is. We want only to say that the method of research that he proposes is completely self-evident from the point of view of the history of cultural development of the child. (Vygotsky, 1997, p. $)^6$

We will see that there are nevertheless quite a few pearls in Janet’s publications and studies that deserve to be included in contemporary psychology. In will mostly focus on the notions of automatic schemas and psycho-physiological states.

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^6 English translation proposed on [https://www.marxists.org/archive/vygotsky/works/1931/higher-mental-functions.htm](https://www.marxists.org/archive/vygotsky/works/1931/higher-mental-functions.htm) (27.8.2015).
Exploring the implications of this new way of approaching the history of psychotherapy is obviously not finished for me, as I can only describe here how I somehow regained my balance, by developing a variety of points of view that have not yet found a thread to connect them elegantly. In other words, this is really work in progress. Most of what follows is closer to what I presented during the autumn 2014 than to the issues raised in this preface. However, I will revise this text from time to time, to improve it. Some of these new developments are inspired by what happened in my psychotherapy cessions when I explored ways of integrating these new developments in my daily work.

I have been adding bits and pieces to the original text nearly every week. It is gradually becoming an essay of the challenged I proposed to my audience in Utrecht: finding a way of discussing themes woven within body psychotherapy that could inspire future psychologists. For the moment the text has the shape of a musical Fantasia, of variations on a few themes that must still be tamed and reorganized. I notice it is gradually becoming an essay in which I try to put together two disciplines I discovered in the 1970s: cognitive developmental experimental psychology and body psychotherapy. In these days these two fields advance in a dissociated way, trying to ignore each other. From the very beginning I refused this dissociation, just as I had refused to take sides in the divorce of my parents. The rediscovery of Janet in recent discussions on body psychotherapy, and even on psychotherapy in general allows me to heal this deep split I have had to face between my sympathies for human sciences, body psychotherapy and body mind approaches. As I advance in this text, I notice that I am also finding new ways of integrating the divorce of my parents. This strange mix between the integration of intimate thoughts and intimate experiences probably explains why I have the energy to work on such an unstructured form, with the belief that it could produce a nice grinding stone on which many colleagues could sharpen their approach of psychological issues.

One implication of putting more emphasis on Janet’s work than previously led me to shift my attention to the notions of psychophysiological states. Freud’s emphasis on instincts and drives remains an important topic in my practice, but paying attention on the different states a person may pass through, and how they are connected has allowed me to develop new forms of relevant and efficient interventions. Janet’s vision also allows one to have a clearer vision of the different strata within the organism than in the Freudian paradigm, but also an even fuzzier vision of how the mind interacts with others and integrates itself in cultural dynamics. For my doctoral thesis (Heller, 1991) I had shown how postural dynamics framed movements and mimics. This return now makes me revisit this theme through attempting to show, in a less formal way, how Janet’s states frame Piaget’s schemas. In the history of psychology, Janet developed his approach (it is not really a theory) of states fifty years before Piaget developed his schema theory. Relating schema to states was not seriously attempted since, as it is often assumed that the new theory should replace the older. I have often shown that coordinating new findings with older formulations is often fruitful, if one accepts that such a dynamic approach to the history of ideas often requires a reformulation of the old models. My respect or old ideas have never been dogmatic, but I have often experienced, when discovering old masters, that they had been caricatured and thus deprived of original ideas that could still inspire many

\[7\] I do not have a better term to designate a variety of approaches than emerged from meditation, trance, yoga and massage.
discussions today. We do not have a 1’000 Plato in the history of philosophy or in current scientific themes. In my book on Body Psychotherapies (Heller, 2012) I have attempted to illustrate the utility of exploring old ideas for current research in a particular field. Researchers have found an incredible amount of marvelous and unsuspected data, which have generated incredible aesthetics, like the photos of galaxies and cells; but discovering the implications of such a large treasure requires some digging for which researchers are not always prepared. It is for this task that old debates may inspire those that are now enlivening human thinking.

Having summarized a few themes that structure this Enquiry, I will not try to show how they are developed in the musical partition that organizes my thinking on the work I have been practicing for 40 years with immense curiosity and enthusiasm, as honestly as I could.

Introduction

The field of psychotherapy is well known for its division into heterogeneous modalities (e.g., behavioral, bodily cognitive, systemic, verbal) and schools (e.g., Freudian, Jungian, Reichian and Cognitive). These schools often propose formulations that are school-specific, self-promoting and difficult to share with others. Recently there has been an increasingly large movement supporting eclectic or synthetic forms of psychotherapy (Norcross, 2005). The idea is that the old rift that formed itself between psychotherapeutic and psychological research could be transformed to become the clinical psychology and psychiatry of tomorrow. This movement requires a loose general theoretical frame that could provide at least some common notions and vocabulary to the field of psychotherapeutic modes of intervention. It is in this spirit that I propose metaphorical arguments to construct bridges between body psychotherapy and other forms of psychotherapy. To do this I will begin by proposing a short definition of body psychotherapy. I will then discuss key issues that have marked the origins of psychotherapy as a field, and then see how psychotherapeutic movements grew and developed different ways of perceiving how individuals, who experience psychological pain, can
be helped. My vision is influenced by my own training in French-speaking countries (Switzerland and France) as an experimental psychologist and a body psychotherapist, but I hope that it can be useful for a wider audience.

Not all forms of psychotherapy refer explicitly to mainstream psychology, but those that do often refer to psychological theories that situate the mind as a set of procedures that participate in the adaptive regulation strategies of the organism. These theories are sometimes referred to as “organismal” (e.g., Werner and Kaplan, 1963). I will use this frame to discuss how some aspects of body psychotherapy can be associated with other psychotherapy schools that also refer, more or less explicitly, to organismal psychological theories.

This article presents insights on the history of body psychotherapy that I have explored since the publication of my book on the subject in 2012. I thank all the colleagues, such as David Boadella (2013), George Downing (2012), Ulf Geuter (2015) and Frank Röhrich (2011), who have encouraged me to explore issues I had not included in that volume. Colleagues have often expressed their irritation, because I only mention a small percentage of the psychotherapeutic schools that exists. There are at least two reasons why I do not manage to proceed differently:

1. The first reason is the limits of my intellectual resources and the time I have to interact in depth with colleagues. I have always found it difficult to feel and understand how others work with their patients, or to explain to them what happens in my sessions. Yet without understanding this part of a psychotherapist’s work, it is difficult to evaluate the relevance of the highly interesting ideas published by a psychotherapist. For me, the beauty of an intellectual formulation and its relevance follow different requirements. I therefore mostly speak of the approaches with which I have had an ongoing personal contact. That does not necessarily mean that those are the most interesting psychotherapeutic approaches.

2. My articles are often long, and already propose pages of references. I therefore need to reduce my references to what is mentioned in a direct way, or to a concrete example of a domain that can be illustrated by many other equally relevant references. Writing on the how psychotherapeutic movements interact would require a richer bibliography, but I am afraid that editors would then find my article unpublishable. This is one of the risks of writing articles that cover so many schools of thought.

During the Utrecht conference, I used exercises to illustrate certain key theoretical points. Some of them are described in this text. I use here the texts I had prepared for that context. They may convey an impression of how body psychotherapists associate bodywork and insight.

Chapter 1. Presenting a short definition of body psychotherapy

Section 1. Exercise I: meditation on awareness, breathing and body (25 minutes)

I will begin this presentation with a short exercise, which will allow me to clarify a semantic issue that has created much confusion in recent debates.

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8 This text is part of what I prepared for the Utrecht conference.
This first exercise is inspired by mindfulness techniques that are often used in cognitive therapies. Including extreme oriental notions and methods in psychotherapy has been introduced, as most of you know, by Carl Gustav Jung. This was particularly evident when he supported two important translations by the Sinologist Richard Wilhelm: The I Ching or book of changes, and The Secret of the Golden Flower. The second volume is a book on Taoist meditation techniques of the 13th century. In the 1970s, numerous psychology students followed a variety of meditation techniques. I was one them. Zen meditation and Yoga was already taught and associated with Gestalt Psychotherapy in Esalen Institute, near San Francisco. Meditation, Yoga, Chi Kong and other extreme oriental techniques were used by individual practitioners in a variety of psychotherapeutic contexts such as Gestalt therapy, Body psychotherapy, Hakomi and a variety of other schools Westland, in print, p. 77). Some cognitive psychotherapists of this generation, like Jon Kabat-Zinn, went a step further when they introduced psychotherapeutic techniques inspired by yoga and meditation, supported by empirical research that demonstrated how useful these approaches could be to treat psychiatric symptoms such as depression (Segal et al., 2002). This courageous project has now gained international recognition.

I will use a simple technique inspired from this mindfulness movement to illustrate a theoretical point I will discuss in a moment. Relax, sitting on your ischia bones, back straight. Your feet are flat on the ground, slightly apart. You may use the back of the chair if you need to. Try to stay as still as possible for ten minutes, focusing on the meditation theme I propose, or any other that is more important for you just now. After that, I will ask you to open your eyes and move whatever part of the body needs to, gradually. If your head twirls, it means you are coming out of the relaxation phase too fast. When you are ready, you may stay alone and take notes, or discuss with your close neighbors how the exercise was experienced by you. I have planned 15 minutes for this phase.
Breathing in, I am aware of my whole body. 
Breathing out, I am aware of my whole body.

_Buddha_ translated by _Thich Nhat Han_ (2008, in _Breathe, you are alive_, p. 46)

Now that you are out of the exercise, summarize and note down (on paper or telephone), with one or two neighbors if you wish, how you situated the following three words:

_Aware = ?_

_Breathing = ?_

_Body = ?_
Section 2. What body and what mind?

In short, the aim was as much to think what we are doing, (...) then to think through doing, and do through thinking. (Charles Heller, 2015, Liquid Trajectories, p. 20)

Each body psychotherapy school synthesizes a variety of existing psychotherapeutic models in function of their own creative process. However, given their interest in the integration of body dynamics, these syntheses share a certain number of common preoccupations. Here are some characteristics that, in my eyes, justify the classification of these heterogeneous schools in the body psychotherapy modality:

1. Body psychotherapy is a psychotherapy.

2. Body psychotherapy is a form of psychotherapy that uses body techniques in an integrated way. Examples of body therapies used by some body psychotherapists are Rolfing, Psychomotor physiotherapy and Hatha yoga. (Totten, 2003, pp. 23-25)

3. Body psychotherapy is a form of psychotherapy that also uses body-mind approaches in an integrated way. Examples of such body-mind approaches are Gindler's gymnastics, Feldenkrais's method, relaxation techniques, and so on.

"Integrated" means that the use of body and body-mind methods are justified at the level of psychotherapeutic theory, models and techniques. A simple addition of body techniques to a psychotherapy that does not necessarily require the inclusion of bodywork is not a body psychotherapy. Thus, some psychoanalysts use relaxation (Giordano, 1997), some cognitive therapists use meditation techniques inspired by far eastern philosophies (Segal et al., 2002), Gestalt therapists (Kogan, 1980; Perls, 1978) and transactional analysts (Cornell, 1997) often use body techniques in a more integrated way. For example, Laura Perls once said "This is something that I can't emphasize enough. Body work is part of Gestalt therapy. Gestalt therapy is a holistic therapy. This means that it takes the total organism into account, not just the voice, the verbal, the acting out and whatever." (Laura Perls, interview, 1978). In the 1930s, when she was in Berlin, she trained with Fenichel, Reich and mostly Gindler. It can therefore be said that she had the
means to integrate psychoanalytical theory and body mind approaches. Nevertheless bodywork is not a central and necessary issue in the techniques used in these schools, who therefore do not claim to be body psychotherapy schools.

Just as the root “psycho” is defined differently by nearly every existing psychologist, psychiatrist and/or psychotherapist, the term “body” has a variety of meanings that are relevant in body psychotherapy. For this discussion, I will distinguish four meanings:

1. The body is the complete individual system of a creature or a person. For example, Lamarck (1802) presented his evolutionary vision as the history of the organization of “living bodies.” This makes sense when one considers he was one of the two founders of the science of biology. He needed to define the difference between the body of the biologist from the body of the physicists like Galileo and Newton. His clear-cut differentiation was later challenged by the analysis of crystals that multiply like living organisms, but are not included in the realm of living bodies. This meaning of the word body is still used, from time to time, in academic literature, mostly in France (Bourdieu, 1997, 4, p. 158). Psychotherapy colleagues such as Yves Brault also use the term body this way (Besson & Brault, 212). It is also used by some body psychotherapists (Westland, in press, p. xi). However, to narrow the polysemy of the term body, I tend to use the term organism to designate the whole being and all it contains, as proposed by most biologists since Darwin (1859). This term does not necessarily imply, for me, a holistic vision of the organism, as in Goldstein’s (1939) proposition. I am closer to those who talk of the organism’s “messy” architecture. The advantage of the term soma is that it excludes this meaning of the term body.

2. The body is the non-psychological part of the organism, as when psychoanalysts talk of their psychosomatic vision. This includes cellular metabolism and neurology as well as the biomechanical dimensions that are the target of body psychotherapists. This is for example the definition of the body presented by Diderot and d’Alembert in their famous Encyclopedia (1751). Diderot and d’Alembert mention the nerves and muscles of the body, but also show the importance of its fluids and bones. In this meaning the body is the material part that contains the soul, it is thus the organism and the soma, but not the soul. This is how I understand the title of Damasio’s famous 1999 book: Body and Emotion in the Making of Consciousness. I often to use the term soma to designate this dimension (Marlock & Weiss, 2015). This term remains problematic, for reasons that Fenichel had immediately detected: “The modern term “psychosomatic” disturbance has the disadvantage of suggesting a dualism that does not exist. Every disease is “psychosomatic. (Fenichel, 1945, The Psychoanalytic Theory of Neurosis, p. 237)”

3. The body of the body techniques described by Mauss (1934). Its main function is helping the organism to deal with gravity. It is mostly made of skin, muscles, bones, and automatic regulation systems of this dimension. Some also include external breathing patterns. I have found no synonym to designate what some colleagues call the physical body, so this is the meaning I tend to associate with the term body.

4. A fifth meaning of the body is defined from the point of view of awareness devices. The body is that part of a person’s organismal dynamics than can be perceived by the person and/or others (Guenter, 2015, p. 5; Bullinger, 1999). Thus a behavior, a gesture, an emotional expression, a vegetative sensation (sensations of heat, weight, tingling, pins and needles, etc.) are perceived by many psychotherapists as psychological representations of organismic

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11 For Descartes (1641, Meditations: Second Responses, Reasons, p. 390), body sensations are included in the realm of thoughts and are therefore a psychological phenomenon.
dynamics. Cognitive and affective thoughts are purely mental phenomena, and are therefore excluded from this way of defining the body. From this point of view the organism is the total biological system a person is, while the body is how this reality is apprehended by his psychological dynamics. The body allow an individual to grasp the shape, actions, dynamics and sensations of the organism. For André Bullinger (1999) the adequacy of one’s body representations is crucial if a child wants to develop a capacity to integrate sensory information in a way that can allow him to acquire adequate ways of interacting with his psychological and physical environment. At the end of the twentieth century, he (Bullinger, 2004) collaborated with psychomotrician therapists in Geneva to find ways of improving the development of this process for handicapped infants and children. When one reads the details of his experiments and definitions, one nevertheless notices how important touching the physical body can be for the construction of the psychological body.

If one should ask, which of these bodies characterize body psychotherapy, I would answer all five, as body psychotherapists rarely explicitly differentiate them. In the literature of this field, the meaning of the term body shifts continuously. The blending of these five meanings shifts from one approach to another. I have the impression that the physical body is particularly important in approaches such Lowen’s 1975 Bioenergetics (using sentences such as “you are your body”), while the psychological body can become central in approaches such as Gestalt therapy, or Ulf Geuter’s (2015) approach to body psychotherapy. However I have the impression that the physical body is actively present in all schools. It may be more or less central but it is part of the common ground that structures this field. It is probably because the use of body techniques such as massage by psychologists and psychotherapists is legally prohibited in some states of the United States that colleagues in the USA prefer to use the appellation somatic psychotherapy. The appellation is different, but it designates similar psychotherapeutic schools and methods.

The somatic body is close to the vegetative dynamics described by Reich. They also play an important role in most psychotherapy schools, which explains while some prefer to talk of somatic psychotherapy. The vegetative dimensions refer to global physiological systems such as the circulation of oxygen in the organism and its interaction with metabolic energy (called internal breathing), and cardiovascular dynamics which influence the humidity and warmth of tissues. What some call body sensations are often sensations produced by the interaction between these vegetative dynamics and awareness (Perls et
For example, ever since meditation exists it is known that sharpening one’s awareness of vegetative sensations and learning to integrate them modifies some affective and cognitive dynamics (one actually ends up by thinking differently). The importance of psychologically integrating vegetative sensations is well known in body-mind approaches (Selver and Brooks, 1980, p. 120). It has probably been transmitted to Reich by close friends and members of his family who explored the teachings of Elsa Gindler (Heller, 2012, pp. 422f, 446f). This example shows that if the physical body is a necessary ingredient of body psychotherapy techniques, all of the other meanings of the body I have just summarized are part of the language of body psychotherapy. If one defines embodiment as the observation that mind physiology and body are, in all cases, deeply and actively intertwined within the organism, then this term summarizes the present theoretical context. If embodiment is a way of saying that the mind can be more or less embodied, than one restricts the meaning of this term to notions that are only used by the neo-reichian schools, who use an energetic model. These vegetative dynamics also play an important role in most psychotherapy schools, which explains why some prefer to talk of somatic psychotherapy. The vegetative dimensions refers to global physiological systems such as the circulation of oxygen in the organism and its interaction with metabolic energy (called internal breathing), and cardiovascular dynamics which influence the humidity and warmth of tissues. What some call body sensations are often sensations produced by the interaction between these vegetative dynamics and awareness (Perls et al., 1951). For example, ever since meditation exists it is known that sharpening one’s awareness of vegetative sensations and learning to integrate them modifies some affective and cognitive dynamics (one actually ends up by thinking differently). The importance of psychologically integrating vegetative sensations is well known in body-mind approaches (Selver and Brooks, 1980, p. 120). It has probably been transmitted to Reich by close friends and members of his family who explored the teachings of Elsa Gindler (Heller, 2012, pp. 422f, 446f). This example shows that if the physical body is a necessary ingredient of body psychotherapy techniques, all of the three meanings of the body I have just summarized are part of the language of body psychotherapy. If one defines embodiment as the observation that mind physiology and body are, in all cases, deeply and actively intertwined within the organism, then this term summarizes the present theoretical context. If embodiment is a way of saying that the mind can be more or less embodied, than one restricts the meaning of this term to notions that are only used by the neo-reichian schools, who use an energetic model. In other words, one may observe more or less synergic interactions between the subsystems of an organism (e.g., more or less chronically dissociated), but in all cases the interaction between these subsystems is constant.

I have the impression that most body psychotherapy schools work with the three following assumptions:

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12 I owe this distinction to a discussion with George Downing in May 2016.
Three basic assumptions of body psychotherapies

1. It is assumed that the physical body of the patient is in constant interaction with psychological dynamics. They each influence the dynamics of the other and of what connects them.

2. As the body is mainly at the surface of the organism, the bodies of the therapist and the patient can contact each other directly through the visual, tactile and kinesthetic senses, while the psychological dynamics of two persons may only contact each other indirectly. Thus contacting the physical body is a way of intervening on the dynamics that connect body and mind as directly as possible. In all cases this process involves the self-regulation and the interpersonal dynamics of all involved.

In most cases, this process involves the self-regulation and the interpersonal dynamics of all involved. David Boadella (Boadella and Specht Boadella, 2006) uses the term somatic resonance by David Boadella to designate such a dialogue (see also Westland, in print, 933ff).
An intervention on the patient’s body may activate different psychological routines than those that can be activated by using nonverbal and verbal communicative behaviors (Seitz, 2000; Gallese and Lakoff 2005).

This leads to two visions of body psychotherapy that I will detail in this text:

1. Body psychotherapy as a modality. Body psychotherapists integrate the body in the realm of psychotherapeutic methods in an integrated way.
Body psychotherapy is a *multimodal approach* with a special emphasis on the body-mind axis. There are two meanings of the term modality involved here:

1. In psychotherapy associations verbal, body, behavior, systemic, Jungian, psychodynamic therapies are different modalities.

2. In psychological research modalities are modes of expression detectable by the senses of other: I may express myself verbally, with gestures, through postural dynamics, nonverbal sounds, through my smell and fragrance, and so on. In that stricter case, psychotherapy schools are not part of the listing.

These two meanings are not contradictory, but do not lead to the same debates. Given the topic of this paper I will use both meanings, with the hope that the context in which the word appears will indicate its meaning.

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**Section 1. The body mind hypothesis: From Far-Eastern approaches to the first Philosophical & Scientific Encyclopedia**

The interaction between European and far-eastern body-mind approaches have been continuous since centuries. The essence of these approaches is a system in which all the dimensions of the organism are a) more or less distinct, b) but interact continuously. In Yoga, mastering posture and breathing is a necessary base for highly varied spiritual processes. Indian and Chinese body-mind techniques remain the most refined and most widely used on this planet. The Swede Per Henrik Ling (1776–1839), one of the founders of orthopedic medicine, included in his synthetic vision several methods from the Turkish Empire, which spread from China to Egypt. Relaxation, hypnosis and gymnastics have developed in constant interaction with these methods. For example: Elsa Gindler studied a form of Persian yoga developed by Zar-Abdusht Hanish (1844–1936); Moshe Feldenkrais was an expert in Judo; Alexander Lowen practiced a form of yoga for a while; and now mindfulness techniques play a key role in cognitive therapy. Although these far-eastern techniques are incredibly varied, they seem to share at least one common analysis: psychological and spiritual maturity requires a particular type of enhanced coordination of all the sub systems of the organism.

The Egyptians of antiquity developed another vision of how mind and body are closely intertwined. The art of making mommies they developed was a material way of paying homage to their religious beliefs on these matters. A common point between the extreme oriental and Egyptians visions was the close imbrication between the organization of the organs and the mind (or the Egyptian soul). These models were integrated by Greek philosophical schools such as those of Pythagoras, Plato and Epicurus. During this process, the Greek philosophers gradually separated these body-mind models from their spiritual and cultural context to form what could be called the first scientific models. However, even then, many followed the view developed in the far-east, which assumed that the mind was a component of certain material dynamics. A good example of this trend is that of the roman epicurean Lucretius, in a book on “the nature of things” (De Rerum Natura):

> For soul is so entwined through the veins,  
> The flesh, the thews, the bones, that even the teeth  
> Share in sensation, as proven by dull ache,
By twinge from icy water, or grating crunch
Upon a stone that got in mouth with bread.
Wherefore, again, again, souls must be thought
Nor void of birth, nor free from law of death;
Nor, if, from outward, in they wound their way,
Could they be thought as able so to cleave
To these our frames, nor, since so interwove,
Appears it that they’re able to go forth
Unhurt and whole and loose themselves unsathed
From all the thews, articulations, bones. (Lucretius, *On the Nature of Things*, Book III, 691–697, translated by William Ellery Leonard\(^{13}\))

This traditional vision became a modern one when it was restructured by the physicians who developed a new form of medicine at the end of the Middle Ages. Their fight was well summarized by Galileo:

> It happened on this day that he [an anatomist from Venice] was investigating the source and origin of the nerves, about which there exists a notorious controversy between the Galenist and Peripatetic doctors. The anatomist showed that the great trunk of nerves, leaving the brain and passing through the nape, extended on down the spine and then branched out through the whole body, and that only a single strand as fine as a thread arrived at the heart. Turning to a gentleman whom he knew to be a peripatetic philosopher, and on whose account he had been exhibiting and demonstrating everything with unusual care, he asked this man whether he was at last satisfied and convinced that the nerves originated in the brain and not in the heart. The philosopher, after considering for a while, answered: “You have made me see this matter so plainly and palpably that if Aristotle’s text were not contrary to it, stating clearly that the nerves originate in the heart, I should be forced to admit it to be true.” (Galileo, *Dialogue Concerning the Two Chief World Systems*, 1630, II, p. 108).\(^{14}\)

This trend became increasingly central in the realm of science and philosophy during the 18th century. It lead to Lamarck’s formulation of a first version of the theory of the evolution of living bodies. In it he shows that there exists a creative natural process which has a history marked by the gradual emergence of all living entities. Each species is derived from existing species, produced by a natural propensity to improve and recalibrate existing adaptive modalities. Humans are part of this ongoing process. Sentiments and inclinations are produced by the organization of living bodies (Lamarck, 1815, xiil). Even intelligence is part of the adaptive regulation system of living bodies which are constantly attempting to improve how manage their environment. The production of social dynamics is an external way of enhancing the constant accommodation of living bodies to their environment. There is therefore inevitably a constant interaction between the calibration

\(^{13}\) English translation by W.E. Leonard found in September 2011 at http://www.gutenberg.org/dirs/7/8/785/785.txt

\(^{14}\) http://fr.wikisource.org/wiki/L%27Encyclop%C3%A9die/1re_%C3%A9dition/AME.
of individual organizations and the calibration of social dynamics. This interaction is particularly visible with complex species, like humans, who have a highly creative adaptive potential:

As man thrived in different regions of the globe, increased in number, establish himself in society with fellow creatures, and finally, progressed and became civilized, his delights, his needs, increased and became more and more diversified; he developed increasingly varied ways of relating to the society he lived in, which, among other things, generated increasingly complex his personal interests. His inclinations subdivided endlessly, generated new needs that activate themselves beyond the scope of his awareness. These grew into a huge mass of links that control nearly every part of him, without him being able to perceive it. (Lamarck, *Histoire Naturelle des Animaux sans Vertèbres*, vol. 1, 1815: 278. Translated by Marcel Duclos and Michael Heller)

This way of exploring how social and physiological interacted directly or through the intermediary of psychological dynamics, became the focus of the studies of Henri Laborit (1971) after the Second World War. Let us now see how this organismal vision developed in the 19th century among psycho-physiologists and psychiatrists, in a way that inevitably led to various forms of psychological analysis.
Chapter 2. The advent of organismal psychology in French-speaking Countries

To situate the different directions taken by psychotherapeutic movements, I will begin by defining some common historically defined frames within which these options developed. I use the notion of frame, defined by Irvin Goffman (Neitzler and Welzer, 2011: 22-30)\textsuperscript{15}, as a system of options that have a set of common references, and that contrast each other. As specified earlier I will focus on the options opened by organismal theories of psychological dynamics, which I will now define, using a historical approach.

Probably because I live in French-speaking countries, I will focus on areas of the history of psychology I know best, which is an area that has always been, more or less explicitly, influenced by Lamarck’s evolutionary psychophysiology, which was integrated with Darwinism by Bernard, Ribot, and Janet. This led, during the twentieth century to a particularly embodied vision of psychological dynamics, developed by figures such as Wallon, Piaget and a focus on how sensory-motor systems participate in psychological dynamics (Bullinger, 2004).

Section 2. A French-speaking approach to evolutionary psychophysiology

The soul is “jointly linked to all the parts of the body via the mechanisms that regulate “the assembling of organs” (Descartes, 1649, Passions of the Soul, I.30).

The politics of a false scientific debate, using the strategy of a false mistake allows one to reject a whole theory\textsuperscript{16}

Anglo-Saxon authors tend to a cliché who presents Descartes as a proponent of a scientific version of a soul/body split. This may have been true for the young Descartes (1928), who was still influenced by his Jesuit teachers, but certainly not for the old Descartes, as shown in the quote at the beginning of this subsection. Gradually, he became increasingly aware of the density of connections through which body and souls regulated each other. The treatise on the passions of the soul, which he wrote at the end of his life, is probably the first book which attempts to track down connecting devices between physiological and mental dynamics. Descartes situated these connecting devices in cardiovascular dynamics organized by what is today known as the pineal gland. Today we know that these two hypotheses are probably relevant, but cannot account for the complexity of the interaction between soul and flesh during an emotional experience.

A recurrent academic reaction I will often mention in this paper, because it has plagued most discussion on the body-mind system is the following: because this small detail is wrong, all the rest must be wrong also. It is claimed that the facts that support

\textsuperscript{15}I thank Philippe Rochat to have drawn my attention to this extremely useful summary of Goffman’s notion of frame.

\textsuperscript{16}A more detailed discussion of my views on the early history of evolution theory can be found in Heller 2012, chapter 7.
this detailed formulation is based on facts that are no more considered as valid, and that has been replaced by sound scientific observations and models. The sentence I often heard in the 1960s among the English academic colleagues of my father is the following: “it is the small detail that makes the whole difference!”. The sentence was often pronounced with raised eyebrows and chin which framed a polite contemptuous smile. This gave the power to lazy unimaginative professors to appear as highly knowledgable persons that can distinguish truth from wrong, and assure them that reading Lamarck, Gall, Marx, Darwin, Jung, Piaget, Reich, Margaret Mead, Laborit and many others is a waste of time. In some cases, the professor can thus dispense himself from reading the author. Sometimes I discovered that a professor had read the other point of view in detail, but he would then tell students that this other point of view is not really worth exploring, as it is a mixture of simplistic points that can be summarized in ten minutes. In other cases a small fact is used to disqualify an elaborate point of view. After the Second World War it was taught that because they had sympathized with the Nazi Jung, Heidegger and Mengelberg had obviously erred, and that all they thought was necessarily unusable. Others excluded Lamarck because he worked under the French Revolution and Napoleon, that a hundred years later he become a central figure of the biology developed in Stalinist Russia, or Reich who had been an active communist while Lenin was in power (he dropped out in Stalin’s days). At the other end of the political spectrum, Darwin and Lorenz were ostracized because their names were used to defend eugenics, racism, fascism, neoliberalism, colonialism and so on. Some intellectuals tried to protest against such biased and often false simplifications, but they were not heard. Examples of such books are Bourdieu’s 1988 book on Martin Heidegger, who was not only a Nazi, but also the professor of Hanna Ardent and Jean-Paul Sartre… who were manifestly not fascists. Another example is the book of Desmond and Moore (1991) which show the strong links between Lamarck, Erasmus Darwin (the grandfather) and Charles Darwin. From their points of view there is no opposition, but the necessary recalibration of old theories by new findings. Thus, for Darwin, Lamarck is manifestly the admirable discoverer of evolution theory, while Wallace and Darwin “formulated the scientific theory of evolution by natural selection, published in his book On the Origin of Species (1859)”. This quote is taken from Wikipedia’s article on evolution (August 2015). As often the devil is in the details. The sentence actually only suggests that Darwin proposed as scientific theory of evolution that uses the notion of natural selection. Darwin’s book was – and is – a brilliant innovative synthesis of Lamarck’s evolution theory and of Wallace’s model of natural selection (Wallace, 1855, 1858).

In the case of Lamarck, the notion that reading him was a waste of time for English-speaking intellectuals is spectacularly illustrated by the fact that only one of his books was translated: Zoological Philosophy: An Exposition With Regard to the Natural History of Animals. The translation appeared in 1914. This is probably the least interesting of Lamarck’s book, as it is the only one that contains certain over simplifications that aimed at making the notion of evolution tangible for a wide public. Furthermore the translation is not only clumsy, but sometimes wrong. For exemple Lamarck wrote “Le point essentiel à considérer, est que, dans tout système d’organisation animale, la nature ne peut avoir qu’un seul moyen à sa disposition, pour faire exécuter aux differens organes les fonctions qui leur sont propres.” This was translated in my published discussion of evolution theory
in the following way: “The essential point to consider is that in every system of animal organization, nature cannot have only one method to make the various organs perform their appropriate functions” (Lamarck, 1809, III, introduction, p. 464). In the published English version Elliot (book III, p. 288) writes the opposite: “The essential point is that, in every system of animal organization, nature has but one method for making the various organs perform their appropriate functions.” This is no trivial point, if one considers that this remark was published by Lamarck to criticize a proposal presented at the prestigious Institute of France by Gall and Spurzheim. They claimed they could show that every psychological function could be located in a specific zone of the brain. Gall’s view has been prevalent in neurology until the 1970s (Fodor, 1983). During my university days, in the 1970s, I was taught that this was the prevalent view in neurology, but that it was being heavily criticized by Goldstein, Luria and even Ajuriaguerra who was head of the psychiatric department of Geneva. It is maybe not irrelevant that one of the most successful attempts to present a more dynamic vision of the brain was Alexander Luria’s (1979), from the Soviet Union, where Lamarck was well known. Today, studies of brain dynamics with new technologies shows that Gall was wrong, and Lamarck’s intuition correct. The “plasticity of the nervous system” is described in nearly every contemporary book on the brain. Being a scientist Lamarck knew that his theories would be corrected by research, and never thought that his formulations were immortal. However he did believe that the idea of introducing the time factor in the essence of mechanisms that structure nature was a completely new idea, and that it would influence science for many centuries. It is only since Lamarck that philosophers such as Hegel, geologists such as Lyell, and even cosmologists (as in the big bang theory) that our Universe has acquired a history.

To create an opposition between Darwin and Lamarck, to justify ideological and political usage of their theories, politically oriented empirical researchers focused on specific formulations taken out of their context17. For example many quoted Lamarck’s hypothesis on the development of the Giraffe’s neck18, that illustrates what Lamarck proposed as a second law of evolutionary processes:

It is interesting to observe the result of habit in the peculiar shape and size of the giraffe (Camelo-pardalis): this animal, the largest of the mammals, is known to live in the interior of Africa in places where the soil is nearly always arid and barren, so that it is obliged to browse on the leaves on the trees and to make constant efforts to reach them. From this habit long maintained in all its race, it has resulted that the animal’s fore-legs have become longer than its hind legs, and that its neck is lengthened to such a degree that the giraffe, without standing up on its hind legs, attains a height of six meters (nearly 20 feet). (Lamarck, 1809, I.VII, p. 122, translated by Elliot)

This was one of the examples that Lamarck gave to illustrate the second law that, according to him, governed evolutionary process:

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17 To be clear, I make a clear difference between empirical and scientific research. No scientific mind can reject Lamarck for purely scientific reasons... that is to say without even reading him.
18 All you need to do is to type giraffe and Lamarck on a search engine, and you will find many websites on the subject.
“All the acquisitions or losses wrought by nature on individuals, through the influence of the environment in which their race has long been placed, and hence through the influence of the predominant use or permanent disuse of any organ; all these are preserved by reproduction to the new individuals which arise, provided that the acquired modifications are common to both sexes, or at least to the individuals which produce the young” (Lamarck, 1809, I.VII, p. 113, translated by Elliot).

Even school teachers (e.g., those I had in school, in France and Lausanne) thought that the notion that acquired habitual habits could become inheritable was a characteristic of Lamarck’s way of thinking which appealed to socialists, while this hypothesis was rejected by Darwinism. There are several ways of showing that this is a wrong ideologically produced vision. Let us review some of these arguments:

- Jean-Baptiste de Lamarck, Karl Friedrich Burdach and Gottfried Reinhold Treviranus simultaneously but independently used the term biology to form a science focused on the study of life and living organisms. Already in Lamarck's 1802 book on living bodies, evolutionary preoccupations were only a chapter of a science that studies physiology, cellular dynamics, psychophysiology and many other topics that are still important in today's biology. I do not understand how the contribution of Lamarck can be reduced to a hypothesis on why giraffes have a long neck, regardless of how relevant his model on the subject was.

- In 1809, Lamarck's second law was a perfectly reasonable hypothesis, that was close to available information. It suggested that some acquired habits could become inheritable. So reasonable that Darwin used it until the end of his life. As it was dangerous to refer to Lamarck (a French revolutionist), Darwin just stated several times in his 1872 book on emotional expressions that acquired habits “can be transmitted” (e.g., Darwin, 1872, I, p. 30), without reference to Lamarck. Darwin’s main correction of Lamarck’s theory is that transmission of acquired traits is only one of the many strategies used by evolutionary strategies. Wallace’s model of selection of the fittest is probably a more central one. Wallace’s model was a clear contribution, as Lamarck had never thought of it.

- Calling Evolutionary Theory Darwinism is an obvious example of a dishonest appropriation by Anglo-Saxon nationalism. They seemed repulsed by the idea that they should owe such a brilliant theory to a Frenchie, and wanted to avoid any positive appreciation of the creative activities that managed to thrive during the French Revolution and under Napoleon. Even Darwin's formulations were difficult to swallow. What we call Darwinism today is far from what Darwin thought. A first important modification was the book published by Wallace on Darwinism after Darwin's death, in 1889. During Darwin's life Wallace remained in the shadow of Darwin, without being fully recognized as the discover of the natural selection model. He now could publish his personal vision of Darwinism, which became a reference. This publication was followed by attempts to synthesize the discovery of genes by Mendel in Austria (1865) and of the DNA (1953). It would seem that Darwin had heard of Mendel's discovery, but did not integrate it. It is only after a rediscovery of Mendel's laws at the beginning of the twentieth century that Darwinians began to find ways of integrating genetics in the dynamics of biological evolution (e.g., Mayr, 1942).

- Epigenetics studies have begun to detail the complex web of highly diversified procedures that connect organismal and mental dynamics. As assumed by Spinoza, the complexity of this web show that one cannot speak of direct relations between body and mind. These connections are multiple and flexible as suggested by Lamarck. Now that researchers can explore the detailed complexities that indirectly influence genetic and psychologic dynamics, an increasingly important number of studies confirm that that Lamarck and Darwin were correct to assume that some acquired habits could, somehow, be “transmitted” (Dias & Kerry
Ressler, 2014; Szyf, 2014). A key idea here is that the environment (e.g., the properties of a uterus) in which genes develop may influence how genes express themselves (Jacob, 2000, Nüsslein-Volhard & Krätzschmar, 2000). Although the literature on the subject is still work in progress, there is an increasing body of literature that assumes ongoing interactions between forms of psychopathology (depression, borderline (Perroud et al., 2013), trauma and genes (Lester et al., 2011).

The main point I want to make at this stage of the discussion is that there is a wide prejudice that prevents academics from making an unbiased evaluation of Lamarck's contribution. The French and some French-speaking countries have been protected from this bias. The French still love Napoleon, and in the French-speaking part of Switzerland many are thankful that Napoleon helped them to become independent from the Swiss German states. In one of his last courses (1970-1971), if my memory is correct, Piaget told us that as a Swiss he could remain neutral, and take the best of Lamarck and Darwin without feeling obliged to become involved in the debates that raged during the cold war in Europe on evolution theory. Being originally trained as a biologist he was looking for ways of connecting the development of intelligence and the dynamics of genetic pools (Piaget, 1967, pages 280 onwards in the English translation), however this attempt did not lead to a concrete relation.

This is maybe a long, but probably necessary, introduction to this section, which will present some features of French-speaking psychophysiology that are original because they integrated Lamarck and Darwin at their best, without getting bogged down in unnecessary ideological debates. This does not mean that they were entirely protected from useless simplifications, but at least ignoring Lamarck was not one of their preoccupations. It is this trend I will now discuss, as it leads to two important figures of psychophysiology: Claude Bernard and Pierre Janet. Claude Bernard developed Lamarck's model on the function of fluids in living organisms, which became known as the internal milieu. This model had a crucial influence on Walter Bradford Cannon's homeostatic model (Cannon, 1932, p. 24). Darwin (1872, p. 303 in the original edition) was highly interested by Bernard's description of a feed back mechanism between organs and brain, in relation to emotions:

“The great physiologist, Claude Bernard, has shown how the least excitement of a sensitive nerve reacts on the heart; even when a nerve is touched so slightly that no pain can possibly be felt by the animal under experiment. Hence when the mind is strongly excited, we might expect that it would instantly effect in a direct manner the heart; and this is universally acknowledged and felt to be the case. Claude Bernard also repeatedly insists, and this deserves especial notice, that when the heart is affected it reacts on the brain; and the state of the brain again reacts through the pneumo-gastric nerve on the heart; so that under any excitement there will be much mutual action and reaction between these, the two most important organs of the body.”

Janet does not mention Lamarck, but I hope I will show that he was indirectly influenced by him. For example, when Janet discusses the creativity of the organism when it

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19 This nerve is also referred to as polyvagal in the Polyvagal Theory of Stephen Porges (2011) that has become so fashionable since the 1990s for all those who work with emotions.
produces automatisms, which I will soon discuss, the tone is manifestly Lamarckian. Even in France, at the end of the 19th century, it was best to avoid mentioning Lamarck. I am not sure that Janet was particularly courageous, as he mostly presented himself as a classical product of French academia. After the Second World War the scientific synthesis of all that is known on evolution, without ideological prejudice, was represented in France by the Nobel Prize winner François Jacob. Like his colleague Jacques Monod, he showed that randomness was a key element of evolutionary processes that Lamarck had not thought of, and that variety has an even greater impact than what Lamarck had thought, but that does not imply that one cannot recognize that Lamarck created the general evolutionary perspective. As these scientists were analyzing how the regulation of the ADN participated in evolutionary dynamics, they were far from debates on the validity of Lamarck’s second law. As private citizens who had been shocked by the use of Darwin by racists and of Lamarck by Stalinism, they preferred to choose a humanist vision of evolutionary ideas. I propose to reinstate terms such as evolutionary scientific theories, and to avoid more loaded terms such as Lamarckism and Darwinism, which do not even represent what these two authors really thought. During the rest of this paper, I will mostly discuss Lamarck’s psychophysiology and not his evolutionary ideas. Lamarck’s psychophysiology can be considered as being out of date, given all that has been discovered since, but it has been a useful vision that has had a deep influence on the French psychology schools of thought I want to discuss in this paper, which has had a creativity of its own. Charles Darwin was not really interested in neurology and psychophysiology, so it does not make sense to talk of a Darwinian evolutionary movement. Evolutionary psychophysiology was mostly a Lamarckian preoccupation, that was later coined Darwinian to please current ideological prejudices I will not discuss again. There was also a pseudo-Darwinian psychophysiology used by racist scientists, but this will not be discussed in this paper, as it has nothing to do with the ideas of Lamarck, Wallace, Darwin and contemporary evolutionary science. These pseudo-Darwinian scientists wanted, for example to show that humanity also had an evolutionary history that began with black African people who physically and psychologically close to monkeys, and ended with the emergence of more evolved white people in Europe. This research did exist, but, to my knowledge, has received no confirmation from recent findings.

**Brief summary of Lamarckian evolutionary psychophysiology**

Non-seulement nous ne comprenons, ni ne comprendrons jamais, comment des traces quelconques, imprimées dans notre cerveau, peuvent être perçues de notre esprit, et y produire des images ; mais quelque délicates que soient nos recherches, ces traces ne se montrent en aucune façon à nos yeux, et nous ignorons entièrement quelle est leur nature, quoique l’effet de l’âge et des maladies sur la mémoire ne nous laissent douter, ni de leur existence, ni de leur siège. (Lamarck, Rapport à l’Institut, 20

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The organization of increasingly complex organisms

A summary of Lamarck’s brilliant attempt of proposing a global psychophysiology for all species can be found in my 2012 book on body psychotherapy, chapter 7. All I want to show here is that he did propose a general frame for psychophysiological research in the 19th century. This general frame is still being used today, although it is falsely called Darwinian when it should be referred to as Lamarckian. Of course, research has been able to add a considerable number of findings and theoretical propositions to the original version of this theory. Those who want to go in the fascinating details of Lamarck’s proposal and who do not read French will have to fight for a decent translation project of his work, as he improved his model during his whole life (Lamarck, 1815 volume 1; 1820). In 1815 he still believed that mental illness was caused by organic dysfunctioning (p. 15), while in 1820 he develops ideas that are closer to those of the psychotherapists at the beginning of the twentieth century.

The general frame is that evolution began with unicellular animals living in water and has generated increasingly complex creatures, which lead to the arrival of human beings (Lamarck, 1802). The use of fluids in the evolution of organisms plays an important role in his model, and could be revisited with interest by body psychotherapists today (e.g., Boyesen, 2001; Brown, 2001), but I will not explore this theme in this paper. There is no reason to assume that evolution will not create creatures that are even more complex in the future. As soon as this vision was constructed, Lamarck needed to show that complex organisms required ways of coordination the information and the actions of that organism. The first characteristic of the organism is that of it has an envelope that distinguishes as clearly as possible inner dynamics from outer dynamics. The main engine of evolution is that of improving the inner organization of organisms so as to enhance its capacity to adapt to the environment in such a way that it can improve its capacity to survive and thrive. The more complex a species the more easily it can calibrate itself to its environment by refining its capacity to sense different features of the environment, and its capacity to discover new ways of reacting to environmental features. This implies a creative force observed in all creatures to constantly recalibrate in function of its need. Lamarck very clearly rejected a vitalism explanation of this propensions, which emerges from the properties of matter and its organization (Lamarck, 1815, p. 12).

Although Lamarck had not traveled as extensively as Darwin and Wallace, he already noticed the incredible impact of the environment on the general form and structure of animals, on how they perceive and react, on their mode of life, etc. This impact forced organisms to find new forms of reactions that soon became automatic when they proved to be useful in a given environment\textsuperscript{21}. Once these new activities became permanent, they involved “on the one hand more frequent use of certain parts of the animal, thus developing and enlarging them proportionally; while, on the other hand, this same change diminishes and sometimes abolishes the use of certain other parts, thus acting unfavourably

\textsuperscript{21} We will later see how the emergence of automatic forms of behavior became a crucial notion for Janet, Pavlov, Watson, Piaget and Bateson. You may notice that these names used the notion of automatic behavior in a highly varied ways that are nevertheless all compatible with Lamarck original formulations.
These new activates have a double action on the inner and outer environment of a living body. On the one hand they modify how an organism relates to its environment, and thus influence of the various states of its organization which will have an impact on “on our character, inclinations, activities and even ideas” (Lamarck, 1809, 106, Elliot). Lamarck went as far as to think that these accommodations can be transferred to one’s children, and that this process could be one of the main activators of evolutionary changes. This last position has been heavily criticized since other powerful activators have been found. If the changes of behavior may not influence evolution as strongly as Lamarck thought, it is still an important factor. First of all because it is still not proven that some acquired traits are not inheritable. Secondly, as shown by Wallace (1858, 1876), if a new behavior enhances the capacity of an organism to survive in a given environment, organisms capable of developing such an adaptive potential have more chances of surviving and thriving. This new behavior maybe due to an adaptive capacity or to one of these random changes that characterize the Darwinian evolutionary theory. The idea that a behavior has an impact on how the organism adapts, grows and calibrates itself thus remains a central feature of organismic psychology. It is also found in forms of body psychotherapy that have analyzed in detail how a change of behavior may change a person’s repertoire of psychological states, ways of thinking and affective dynamics. The implications of this inheritance on contemporary French-speaking psychology is well described by André Bullinger (2004), even if, once again, he does not dare to mention Lamarck’s contribution to his thinking. Yet his frame, explicitly influenced by Piaget, Wallon and Ajuriaguerra is clearly influenced by neo-Lamarckian models. Being a student and collaborator of Piaget, he had, of course, heard what Piaget had to say on Lamarck.

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22 I prefer to use Piaget’s terminology which is more precise but is compatible with this aspect of Lamarck’s thinking.
The second part of Lamarck’s psychophysiology is an exploration of the implications of having organisms that contain an increasing number of cells and that can handle an increasing number of events. Here are a few examples of what I am talking of:

- The formation of specific organs within an organism, like the liver. These organisms are like animals: a membrane that contains a variety of cells. However, as they cannot reproduce themselves independently from the rest of the organism, their main functions are to participate in the organism’s survival in a specific way.

- The formation of structures involved in maintaining the basic organization of organs in the field of gravity, such as external and/or internal skeletons.

- Global regulating systems such as the hormonal, cardiovascular, immune, respiratory and nervous systems.

The filiation between Lamarck and Janet is not referenced, but bizarrely we notice traces of it in authors that are influenced by Janet, but probably never payed attention to Lamarck’s psychophysiology. A good example is Van der Kolk (2014, p.59 and 84) who defends the plasticity hypothesis, on which I will say more later: “As my friend Ed Tronick taught me a long time ago, the brain is a cultural organ – experience shapes the brain. Van der Kolk(2014, chapter 4) also defends what MacLean (1990) called the triune brain model of the brain, even if it is today out of date; and adheres to the notion of plasticity of the brain defended by Lamarck (1809, III.I, p. 310). The triune brain model assumes that the brain stem was developed by reptiles, the limbic system by lower mammals and the

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23 Found on the website of the Piaget Foundation in September 2015.
24 This is my simplification, not Lamarck’s. This formulation works for the main organs of humans such as the liver, heart and lungs but not for the cells of the immune system.
cortex by higher mammals from rats onwards. Since Lamarck, neurologists who qualify themselves as Darwinians (who never defended this thesis, but had read Lamarck's version), it is assumed that these three brain structures correspond to distinct psychological layers. For example, the limbic system is responsible of the regulation of emotions (Ledoux, 1996; Lamarck, 1809, p. 495; 1815, p. 225–239). What is true is that a first layer of emotional reactions appears in certain parts of the limbic system such as the thalamus. This first treatment of information may automatically trigger stereotyped sensory-motor schemas, before the other two phases have had time to complete their activation. They correspond to stereotyped emotional expression such as those described by Ekman (1979).

Since my diploma thesis in 1976, I have piled up evidence showing that these three layers are connected by circuits that coordinate emotions, as was already shown by Canon (1927) and Bard (1928). The evolutionary history of the brain remains valid today, but the rigid association between these layers and psychological functions seems to be more complex than what has been claimed by those who defend the triune brain model. However even in this group of authors one some time finds clinical observations that go beyond the theoretical model they present. Thus Van der Kolk (2014, p. 99) observes that limbic emotional reactions can be particularly frequent among traumatized patients, while healthier persons have a wider repertoire of emotional states which includes certain forms of autoregulation. Thus traumatized persons "lack a nuanced response to frustration which include a capacity to find pleasurable feelings and meaning." They either react to stress by becoming "spaced out" or with excessive anger."As already observed by Goldstein, they tend to have meaningless emotional fits without "having a sense of meaning". Healthier people tend to use a wider range of "self-sensing areas of the brain." In this passage, Van der Kolk the clinician spontaneously uses a model that is closer to Cannon's than to Ledoux's, while he does the opposite in his neurological fourth chapter.

I will later talk my concept of connecting devices which fits into this type of preoccupation that becomes inevitable as soon as one accepts the notion that organisms can partially restructure themselves and participate in evolutionary processes. Lamarck stressed that the more complex an organism becomes, the more it needs devices that can centralize information of what occurs. Lamarck, before Darwin, was already aware of the extreme diversity of heterogeneous routines that are simultaneously active within an organism, and that explains not only interpersonal variety, but also the lack of rational behavior that can be observed in all species, most of all among humans. It would seem that the need to coordinate different forms of sensing and acting becomes increasingly urgent when organisms become highly complex and flexible. For Lamarck flexibility often requires complexity. These preoccupations led to develop an analysis of the nervous system that is for him the key system that can centralize the information disseminated in the whole organism, and produce global behavioral strategies. He thus proposed a hierarchical model of the system that formed itself during evolution. It is simplistic compared to today's neurology, but it has played an important role in structuring the field.
Lamarck’s evolutionary psychophysiology

Lamarck’s work on the evolution of the nervous system and the ability to feel and think is of interest to us today because the problematics he defined are still relevant, although, of course, in a very different modern incarnation. (Simona Ginsburg (2011). Lamarck on the Nervous System: Past Insights and Future Perspectives, p. 369)

We saw that Descartes and Spinoza tried to reconcile a parallelistic approach to body and mind, while finding ways to integrate the increasingly manifest fact that there exists many interactions between them. With Lamarck there only exists mater and organization:

1. The organization of gaseous, liquid and solid bodies and organs with the organism.
2. The social organization of organisms.

Psychological dynamics are a part of what coordinates the internal and external dynamics of the organization of the organism. Within this web of complex interactions Lamarck distinguishes layers that are formed by different organizations of sometimes different material substrates. These layers can be differentiated at a structural and functional level, and are only loosely connected.

Lamarck assumed that intelligence; propensions and sensing are three distinct layers of the mind, that are associated to distinct support systems. For example lesions that destroy cognitive capacities may leave intact affective and sensory-motor capacities. (Lamarck, 1815, p. 13f). Thus inner sentiments can activate well-organized behaviors without any intervention of the higher cognitive functions (thinking25, judging, classifying, willing, etc.). Even among humans it would seem that most of the time they do not use willful modes of functioning (Lamarck, 1815, p. 112). We here have one of the bases of Janet’s thinking when he was working on the dissociation of psychological states and automatisms to understand and help hysterical patients. Wundt, Freud and Jung remained closer to classical parallelism when they tried to create a clear distinction between the physical and psychological causes of mental illness. In both schools of thought, psychological and physical factors necessarily interact with each other, and in both school of thought there exists layers of the mind that can be more or less constructively connected and differentiated. Trying to work on how different layers of the mind function and how they are connected is a common ground for all psychotherapists. But the French-speaking models are closer to Lamarck’s model, while the Germanic schools follow different ways of pondering on these matters. In his more polemic writings, at the end of his life, Lamarck (1820) will show that the coordination between the inner and outer organization of organisms is much more complex that what humans can understand and handle. Nature and history interact with the organization of an individual in ways that individual conscious process cannot become aware of. The capacity to realize this, and to find a philosophical stance that can integrate this situation is for Lamarck a key to wisdom and mental health. Have been the witness of the French Revolution and its Guillotine, Napoleonic war, and then the return of arrogant aristocrats, Lamarck could only have a pessimistic view of the capacity of humans to act constructively... even when a revolution could have fulfilled hopes that were nevertheless transformed in manifestations of hate and violence. This

25 For Descartes thinking is any conscious impression, while for Lamarck thinking implies reasoning.
general context maybe one of the reasons why Lamarck insisted on distinguishing clearly the different layers that activate organisms, but this position was also based on solid scientific observations on the evolution of psychological dynamics in numerous species.

**French-speaking Psychophysics**

The soul is really joined to the whole body. (...) All it can be related to is the whole assemblage of the body’s organs. (Descartes, 1649, *Passions of the Soul*, I.30)

One of the core characteristics of French psychophysics is their way of wanting a) to define the mind as a well-differentiated entity, and b) of situating it in the realm of the regulators of the organism. The mind is thus in constant interaction with sensory-motor circuits and physiological dynamics. I am not talking of all French speakers, but of a French-speaking movement which participated in an important way to the construction of what I call organismic psychology. Although, at a first glance, this position can be found in most psychological schools at the end of the 19th century, Lamarck’s influence nuanced French psychophysics in a particular way. One can find antecedents of this particular tone in Descartes’s quote at the beginning of this subsection.

Most English-speaking intellectuals talk of a Descartes as a leading figure of philosophers who believe that soul and body are clearly separate entities (e.g., Hobson, 1999, 2013; Damasio, 1994). And indeed, like most of his contemporaries, Descartes defended a parallelistic vision according to which mind and body had entirely different substances and therefore followed different laws. This position is clearly defended in Descartes’s early writings, but in the 1740s, when he left for Sweden, Descartes was exploring other domains that the separation between clear scientific concepts and physiological dynamics. He was now focusing on passions during which body and mind try to survive in the same storm (Descartes, 1949). Descartes did not entirely succeed in finding a way to describe what happens when passions animate an organism. His emphasis on the pineal gland was ridiculed ever since, from Spinoza (1677, V, Preface, p. 161f) to Damasio (1994) and many others. Damasio’s book could be entitled Damasio’s error²⁶, as he does not seem to have fully perceived Descartes’s preoccupations. Here is another example where a fascinating enquiry is perceived as not worth reading because of a false detail that makes the whole difference. Descartes does not only speak of the pineal gland. The blood is for example shown as a fluid that can transform itself and find ways of irrigating the nervous system. Muscles are also involved. The conundrum Descartes was trying to deal with is still with us:

1. Noticing that the interactions between physiology and soul are powerful, complex and multiple.
2. Preserving the notion that the soul has modes of functioning that cannot be analyzed when studying physiology.

As Descartes lived many years in Holland, Spinoza was involved in discussions of Descartes’s later ideas. Like Descartes, Spinoza defended a parallelistic vision: mind and

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²⁶ I have stolen this expression from François Ansermet, when he was joking in an informal meeting.
physiology are clearly separate entities, following different laws and having different properties. However he dropped the notion that there is a soul, and described the mind as a dimension of the organism. This permitted him to coordinate two complementary thesis:

1. Mind and body are different dimensions that have different modes of functioning. They could therefore not influence each other directly.
2. The mind and body are dimensions of an organism that can sense and influence whatever happens in its domain. The global system can thus coordinate what happens in the mind and the body.

This position was later developed by William James (1890, p. 1135) and became one of the basic ideas with which Edmund Jacobson (1938) created his progressive relaxation method. Jacobson had analyzed subjects during relaxation using EEGs (electroencephalogram) to measure brain activity and EMGs (electromyograph) to measure muscular tension. He then checked his observations by asking his subject what they had observed within themselves. These studies highlighted two phenomena:

1. No one can think of a hand without a slight mobilization of the muscles. This mobilization is not always being perceived by the subject and/or a trained observer, but it can be detected by EMGs.
2. The thought of the hand and the mobilization of the muscles of the hand occur simultaneously. It is therefore not one that causes the other. Following James’s idea, Jacobson assumes that nonconscious organismic regulators have coordinated the mental and the muscular activity.

Spinoza’s attempt to maintain a form of parallelism between mind and body within the organism did not convince the French, who preferred the more chaotic vision of the old Descartes. In the long definition of the soul in the Encyclopedia of Diderot and Alem- bert, it is explicitly stated that body and soul are inextricably linked and in constant inter- action. For them they may be intermediary organismic regulators, but the relation between mind and body is manifestly more intimate than what Spinoza had assumed.

The many discussions of philosophers on how parallel mind and body were suddenly redefined in 1802, when Lamarck published his book on his “research on the organization of living bodies.” The organismic stance suggested by Descartes and made explicit by Spinoza became a dynamic vision which has a history: biological evolution. As organisms became increasingly complex they developed ways of centralizing information such as an increasingly complex nervous system and psychological resources which increased the
capacity of animals to form socially organized groups capable of enhancing the capacity of individuals to survive and multiply. This led to a vision of human development in which physiology, mind, behavior and social connections developed dynamic interactions that are incredibly complex, and can only be partially grasped by human conscious procedures.

In French-speaking countries, the most creative aspects of Lamarck’s evolutionary psychophysiology structured research. The highly influential Claude Bernard corresponded with Darwin and had no problem in assuming that the new theory was an improvement on the old one. In Geneva, during a course, Jean Piaget once said that being a Swiss citizen he could remain neutral, and take the best of both approaches. This led to an original way of approaching the coordination of posture, sensory-motor patterns and the mind as regulators of the organism (Bullinger, 2004).

**Reflexology: a chest of neurological drawers that lead to centralized psychological impressions**

Marcel Gauchet (1992) wrote an indispensable book on the “cerebral unconscious”\(^{29}\). It describes the history of a neurological unconscious, which was gradually defined by 19th-century neurologists and psychiatrists. Today this theme is developed in what is known as the neuro-sciences. Distinguishing this unconscious from the Freudian unconscious will be an important theme in this section, as it is the cerebral unconscious that is often referred to in cognitive, behavioral, and systemic therapies. Implicitly at least, it is also often used by body psychotherapists. However, one could also enlarge Gauchet’s model and assume that all somatic processes participate in the formation of a somatic unconscious regulated not only by nerves but also by hormones and cardiovascular dynamics (Brown, 2001). What I call nonconscious processes is a psychological unconscious grounded in the cerebral unconscious (Fraisse, 1992). In my thinking, this cerebral unconscious is not only grounded in the brain, but more generally in physiology, as in Cannon’s homeostasis and Selye’s stress circuit. I could call it a psychophysiological unconscious. To be clear, I think of nonconscious psychological dynamics as being intimately associated with relational and institutionally processes as well. This may relate to the impact of socially produced symbolic systems, or the impact of the affects experienced by those who interact with a person; but it also includes direct interactions between soma and society that have an indirect impact on psychological dynamics. An example is Bourdieu’s (1979) way of using the term *habitus*, which shows how different societies use chairs or squatting differently. This has a direct impact on physiology, behavior, symbolic systems, affect and the mind. Focusing on how the mind interacts with physiology, as will do in this paper, does not contradict the assumption that social dynamics interact in an important and highly varied way with the mind.

\(^{29}\) This one of the many interesting books I discovered thanks to Nicole Clerc.
Lamarckian psycho-neurology, as it developed in French-speaking regions

Jean Piaget in his office, reading Lamarck’s *Zoological philosophy* in 1979.30

Like the encyclopedists, Lamarck (1820) situated the mind as a part of the cogwheels that animated animal human organisms. What he added was the time dimension. This transformed the body-mind hypothesis as a proposal made by schools of thought into a central scientific preoccupation. The distinction between men and animals disappeared when he showed how the body-mind coordination gradually differentiated during thousands of years, following step by step the creation of increasingly complex species. The English geologist Charles Lyell confirmed that this theory could fit in the time frame given by his studies on the evolution of the crust of the earth, and the German Philosopher Georg Wilhelm Friedrich Hegel explored the implications of assuming that even the essence of life evolved in his famous book on the Philosophy of History. Thanks to Lamarck, it became plausible to image that everything was dynamic, something that even Heraclitus did not dare to image31.

The neurologists discussed by Gauchet were influenced, directly or indirectly, by Lamarck’s evolutionary psychophysiology32. From this perspective, the nervous system’s main function is to centralize information on what occurs within and around the organism to organize global organismal reactions. The spinal nervous system is made of automatic

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30 Found on the website of the Piaget Foundation in September 2015.
31 Although Heraclitus taught that everything changes continuously (you can never bath twice in the same water), he still assumed that basic essence of things was eternal.
32 For purely ideological reasons this psychophysiological theory is often referred to as “Darwinian,” even if Darwin based his views on such matters on Lamarck’s proposal (Heller, 2012, chapter 7).
modes of functioning called reflexes. During evolution, these reflexes organized in a hierarchy of increasingly complex and flexible procedures. When the brain emerged, the organism was able to design connecting devices which could coordinate reflexes in increasingly complex ways. Another function of this nervous organization was to allow a recalibration of how the organism responds to increase its adaptive potential. This adaptive potential was enhanced as soon as the nervous system became able to produce automatic psychological procedures that could somehow sense, in at least an approximate way, what they are doing (Piaget, 1967). The development of these psychological procedures was spontaneously linked to the development of social structures. As some aspects of these psychological devices could use increasingly complex socially constructed communicative devices (body signs, tools, language and so on), individual moods and concepts could be recalibrated by group dynamics (Laborit, 1971). Psychological dynamics attained with humans a degree of complexity that seems to govern individual thoughts and moods without them being capable of sensing or apprehending that this occurs:

“As man thrived in different regions of the globe, he increased in number, established himself in society with fellow creatures, and finally progressed and became civilized. His delights and his needs increased and became more and more diversified. He developed increasingly varied ways of relating to the society in which he lived; which, among other things, generated increasingly complex personal interests. His inclinations subdivided endlessly, generated new needs that activated themselves beyond the scope of his awareness. These grew into a huge mass of connections that control, outside of his perception, nearly every part of him.” (Lamarck, 1815, *Natural History*, p. 278; translated by Michael C. Heller and Marcel Duclos in Heller 2012, p. 162)

Lamarck is one of the creators of the science of biology. He founded this science by burying the soul, or, to be more precise, the belief that human reason could extract itself from its material ecology and become capable of understanding and modeling the universe that contains it. For him this belief in the power of reason is “baseless and purely imaginary” (Lamarck, 1809, III.1, p. 294). Lamarck nevertheless shows that even if nervous and social nonconscious regulators constantly regulate conscious thinking, thought are also capable of influencing these mechanisms. This capacity is at the core of the history of science and technology. Given this general vision, if Lamarck were alive today, he would not have been astonished by the catastrophic destructive impact of recent novelties produced by civilization and war on our ecosystem. The historical dynamics unleashed by the emergence of human consciousness has so many implications, that its intelligence is incapable of understanding and mastering them. Gauchet repeatedly suggests that it is because these general considerations on the cerebral unconscious were put into place during the 19th century, that Freud was able to introduce his notion of psychological unconscious a century later.
The Parallelism Between Automatic Nervous and Psychological Activity

Nineteenth century neurologists and psychiatrists had the difficult task of redefining what was previously called the soul within the frame set by Lamarck. Researchers needed new metaphors to support their imagination. Their central idea seems to have been that the reflexes of a person regulate most of his or her automatic actions, such as postural coordination, automatic behavior, and automatic thinking (Janet, 1889). At the top of this pile, we find a form of consciousness that allows particularly refined procedures. This form of consciousness can perceive and calibrate some dynamics within and around an organism, but what really occurs is much more complex than what a person, or even scientists, can apprehend. Alain Berthoz (2009) has coined the term “simplexity” to describe the complex set of routines that allow a mind (or a science) to forge usable relevant simplifications of what is happening.

For these authors, conscious thoughts are rarely a cause of what a person does. It is much more an observer that can modulate certain aspects of how the organism interacts with its environment. Thus the English neurophysiologist Thomas Laycock, there can only exist a coincidence between breathing and mental awareness (Gauchet, 1992, p. 60). Sensory-motor circuits and psychological procedures coincide, but do not have direct causal connections. John Hughlings Jackson is another well known English neurologist that was often discussed by Charcot’s team, because he was an authority on the neurology of epilepsy. He went beyond current localization psycho-neurological theories, and “maintained that the cerebral organization of mental processes differs according to the complexity of the process in question and the representation in the brain for processing that complexity. […] Furthermore] all psychological functions have a complex “vertical organization. Each function has a “low” level representation in the spinal cord or brain stem is also represented in the “middle” or sensory and motor levels of the cortex, and finally is represented as a “high” level, presumably in the frontal lobes. (Luria, 1979, pp. 121-122).” Jackson’s model is yet another approach of the heterogenous organization of psychophysiological routines within a single set of functions. Once again, it raises the issue of how they are connected, and how much disconnection inevitably exists. The assumption is that the many sorts of links that exist between such a large variety of routines are necessarily nonconscious, inaccessible to any form of introspection. It is in this context that William James (1890, p. 1135) noticed that “every representation of a movement awakens in some degree the actual movement which is its object. Every pulse of feeling which we have is the correlate of some neural activity that is already on its way to instigate a movement. Our sensations and thoughts are but cross-sections.” In the 1980s Pierre Mounoud (1986), showed that similar visions were still being researched on:

33 I thank Philippe Rochat to have drawn my attention to this extremely useful notion.
“Our mental abilities are mostly based on unconscious processes; in other words, cognition and consciousness do not require necessary links. Indeed, we are generally not conscious of the rules, the operations (often qualified as mental), of the representations or of the schemas that determine our behavior. (my translation)"

The psychiatric treatments of these days were mostly physical: showers, massage and baths, within healthy and hygienic surroundings. Psychological techniques gradually crept in these multiple forms of physical intervention homeopathically (Janet, 1919). We must not forget that Wundt founded the first formal laboratory for psychological research in 1879 at Leipzig, while Théodule-Armand Ribot became the first professor of psychology at the Sorbonne in 1888. These first psychologists were all trained in medicine and philosophy.

The development of psychological methods of cure for psychopathology developed in a particularly dramatic way when Jean-Martin Charcot mobilized all the resources of The Salpêtrière hospital in Paris (Gauchet & Swain, 1997), to find ways of differentiating epilepsy and hysterical convulsions in a reliable way. This difficulty still exists today for clinicians who need to provide a precise diagnostic. I remember that it was the subject of a series of seminars given in Geneva hospital during the 1990s, by Theodor Landis (professor of neurology) and André Haynal (professor of psychiatry and psychoanalyst). Today psychiatrists use the term dissociative convulsion to designate the hysterical patients described by Charcot.

34 "Il est peut-être utile de préciser d'emblée que les connaissances dont il sera question ici ne sont pas nécessairement conscientes. Nos habiletés cognitives sont basées principalement sur des processus inconscients; en d'autres termes, cognition et conscience n'entretiennent aucun lien de nécessité entre elles. En effet, nous ne sommes généralement pas conscients des règles, des opérations (qualifiées souvent de mentales), des représentations ou des schèmes qui déterminent nos conduites."
At first, Charcot thought that these two illnesses activated similar sensory-motor circuits in the spine. Gradually he discovered that this differentiation required cortical reflexes. When it became obvious that brain damage could explain epilepsy but was insufficient to explain all that was observed on hysterical patients, Charcot decided that all possible explanations were on the table; and that their relevance should be evaluated by rigorous clinical methods. He thus explored how faith, metal, electricity and hypnosis could participate in the cure of hysteria, as all these explanations had been proposed by medical doctors who had described how their method had cured certain patients. The most convincing results his team observed emerged with the use of hypnosis. He discovered that through hypnosis a therapist could activate sensory-motor circuits of the same kind as those activated by epilepsy. He and his team then discovered that subconscious traumatic memories (not necessarily sexual) could activate nervous circuits in a variety of ways. The notion that cerebral lesions or psychological dysfunctioning could activate in a nonconscious way sensory-motor circuits in the spine has since then become a widely spread hypothesis, and is a key notion in most body psychotherapy schools. He and his team then discovered that subconscious traumatic memories could activate nervous circuits in a variety of ways. Today, researches as the ones published by Bessel Van der Kolk (2014, pp. 41f) confirm that one can observe what I call psychological brain lesions during a crisis such as a post-traumatic attack: “We have proof that the effects of trauma are not necessarily different from – and can overlap with – the effects of lesions like strokes. (p. 43)” It could now be claimed that scientific clinical medical research had demonstrated the existence of a psychological dimension that could not be entirely explained by physiological and neurological laws, and which required a specific form of treatment.

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35 Charcot’s 1893 book on how faith could cure, tried to isolate what explainable psychological strategies used by healers had a therapeutic value. This book on how religious influence could be explained scientifically was Charcot’s publication. It had a deep impact on Janet who explored this theme until his death. Both Charcot and Janet accepted the fact that spiritual healers could cure, but they assumed that the explanations they proposed could be revised by scientific research. To summarize, some healers provide effective treatments, but their therapeutic strategies still need to be explained. For example saying that praying God may heal does necessarily mean that God exists.
Pierre Janet (1889), who was a psychologist in this team, assumed that hysteria was caused by a pathological splitting of conscious processes that could activate relevant or irrelevant (e.g., convulsions) sensory-motor circuits. Janet explored ways to intervene in this splitting of consciousness based on recent psychological research and discussions in Charcot's team. These psychological methods seemed to influence a drawer at the top of a chest of drawers in the highly varied repertoire of interventions used in psychiatry. They included the analysis of nervous lesions, reeducation of sensory-motor responses (using massage, baths, medication, gymnastics, and so on), ways of curing misconnections between mind and brain, a detailed recording the history of the patient, to the use of hypnosis and psychological methods to reeducate a mind that uses unproductive procedures. These psychological treatments were used in the same spirit as medication through educative interventions (Janet, 1919).

It would seem that, for Charcot, the capacity of being hypnotized and of creating subconscious modes of functioning was a characteristic hysterical symptom. Hypnosis then became an accepted form of medical treatment. However, Hippolyte Bernheim showed that the capacity to be hypnotized could be observed in many people, and that it had no necessary link with psychopathology. Hypnosis disappeared once again from the repertoire of treatments recognized by academic medicine as quickly as Charcot had imposed it. In other terms, medical faculties could not integrate hypnosis as a general psychological human trait.

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36 This model was revisited during the 1960s by neurologists who studied “split brains” with Roger Wolcott Sperry. They (Gazzaniga, 1967) studied the impact of brains without a corpus callosum on consciousness and voluntary behavior.

37 I have followed Janet’s (1923, I, 2:16-21) description of this debate. This debate may have been one of the reasons why Freud gradually abandoned the use of hypnosis in his psychotherapeutic work.
To summarize, Darwin and Mendel strengthened Lamarck’s vision that evolution spontaneously and continuously transforms details within a global structure, without requiring coherence or relevance. When many details have changed (for example among animals living in water), the numerous new routines will develop a new global change (for example the capacity to survive out of water), which will then require centuries of small changes that will adjust to this global change with more or less relevance. The criteria is only the capacity to survive, not a search for coherence. Thus, the mind did not suddenly emerge from the body as a coherent entity, sometimes called the soul. During thousands of years, a multitude of organic mechanisms participated in the formation of a multitude of psychological mechanisms that created different ways of coordinating physiological routines with an added impression that is experienced as a perception. There are, therefore, a great diversity of memories, conscious procedures, and forms of awareness that each have particular ways of connecting with other psychological and physiological routines; there is no clear frontier that separates the somatic from the psychological, or the psychological from the cultural. As always, in biology, there are a few central mechanisms that allow a minimum of coherence, but the details can be highly varied. This vision has been detailed ever since (Hubel and Wiesel, 1963; Varela, 1989; Clack, 1997).

Chapter 3. Pierre Janet as the defender of scientific ethics in psychology

Pierre Janet was a pure product of Parisian psychophysiology. He lived most of his life in this exciting city.

Section 1. Théodule Ribot (1839-1916)

You may have read that Janet was a philosopher, but that is only partially the case. In France, until the Second World War, psychology was taught in the Faculty of philosophy. This was the situation in most European and North American countries. Janet may have followed some good courses in philosophy, but he mostly learned experimental psychology in the laboratory of Théodule Ribot, who is considered the founder of scientific psychology in France. Like most of his colleagues (e.g., Wundt and James), Ribot was known as a philosopher who specialized in psychology. For him all forms of inner experiences were part of his domain, affective as well as cognitive. He combined self-reports and introspection with physiological and behavioral data, with the idea that these different methods were complementary ways of approaching scientifically the elusive dynamics of the mind. This was an attempt to resist the religious pressure to situate the psyche as parallel to material dynamics, and August Comte’s claim that the mind could not study itself scientifically. From 1873 onwards, Ribot worked focused on the innate psychological

38 Tronick (2007, Introduction, pp. 2–4) and Clark (1997, 6.2, p. 107), as well as many others, including myself, talk of the “messy” development and architecture of organisms.
39 Following a Piagetian tradition, perception is for me information that has been integrated by awareness.
dynamics. His stance was closer to that of Darwin and Spencer than to that of Lamarck. One of the methods he used to study these hereditary psychological propensions was to collaborate with physicians to study diseases of memory, disease of the will and disease of personality. This implied that he integrated strict clinical forms of investigation. This defined the research methods of scientific psychology in French-speaking regions for the next decades. During the 1880s he collaborated with Charcot’s team in Salpêtrière school.40

Section 2. The career of Pierre Janet (1859-1947)

Janet studied psychology and medicine at the same time, to integrate neurology and psychology. During that period he was trained by Ribot, and developed his skill to analyze gestures, language and bodily signs as indirect confirmations of psychical states. While he taught at Le Havre, he published in Ribot’s journal, and prepared his thesis on Psychological Automatism. His thesis was accepted, published in 1889, and soon became an international reference. It also opened the door of Charcot’s team, where he was asked to direct the research on the psychological causes of hysteria41. “he became head of it in 1889. When Ribot retired, Janet replaced him as director of the experimental and comparative psychology laboratory at the Collège de France. A position he held until his retirement, in 1934.42

During the First World War Janet’s stance became repetitive (Janet, 1923): psychopathological symptoms can be influenced by a variety of methods such as gymnastics and breathing exercises, physiological interventions on the bowels and the cardiovascular system, reconditioning, moral and religious education. Once you accept that the mind is a regulator of the organism connected to all other regulators, then all is possible. This stance is mostly used as an ethical position, with no creative psychotherapeutic developments to back it up. Everything happens as if he had been so deeply shocked by the power of the psychoanalytical tsunami, that he could only try to block the wave by becoming a protective wall which could save the traditions of French organismic psychology. This fight seems to have drained his creative energy for psychotherapeutic matters out of him. He began to list a catalogue of all available methods, be they scientific, religious or moral, gymnastic, physiological, mental or relational, showing how each approach is limited and useful. Even Freud’s free association method is also in that list. For each he shows that the theoretical claims that support the use of this method are not credible, and that they should be reframed by further clinical and experimental research. The main difference with the traditional materialism of the 19th century, is that the power and importance of the mind as an organismic regulator is always stressed. Like in Lamarck’s psychophysiology, or Marcel Mauss’s (1934: 85) analysis of body techniques, the mind is a “cog-wheel” that connects social dynamics and individual social dynamics. This explains why such a varied repertoire of methods are required for the treatment of psychological dysfunction, and for the education of psychological development. This professorial stance partially explains why active psychotherapists stopped reading him. Being told that whatever you do

40 For this paragraph I followed George Makari’s (2008, pp. 10-15) summary of Ribot’s work.
41 The work of Charcot’s team will be detailed later on.
42 For this paragraph I often followed George Makari’s (2008, pp. 48-51) summary of Janet’s work.
can be useful, but that you do not really know what you are doing, is not a motivating stance for a practicing psychotherapist. It can be used as a sound ethical safeguard, but not as a motivating support for everyday practice for all those who trying to help traumatized soldiers during this same world war (Freudians, Goldstein, Cannon, etc.\textsuperscript{43}). As he aged and became increasingly respectable, Janet let himself become the spearhead of an old guard of organismic psychologists against the rise of psychoanalysis and other psychotherapeutic non-academic schools. Janet’s defense against the Freudian and Jungian tsunami was, however, appreciated by young psychologists who had other interests than those of Freud, like Piaget in Geneva. After a few attempts to encompass as many topics as Janet, Piaget decided to focus on cognitive issues and leave aside affective dynamics, which necessarily called for endless and useless discussions with the strong psychoanalytic movement in Geneva. At the end of his career, probably stimulated by Piaget, Janet (1932, 1934) focused on the analysis of the affective, cognitive and social development of infants. As usual he used this topic to list the multi-factorial facets of the mind, forged by how the organism that contains it interacts with others, plays, uses his voice and movements, uses mirrors, and so on. He sometimes illustrates his understanding of children by using observations made during his psychiatric career. He was now 77 years old, and thought that it was time to retire.

Fifty years later, it seems that the protective wall constructed by Janet to protect freedom of thought in the realm of psychotherapy became useful after all. Younger generations felt increasingly free to propose entirely new directions, as in systemic psychotherapy, body psychotherapy, cognitive and behavior therapy… and most of all in new approaches of trauma that found Janet more instructive than Freud. It is to be noted that this revival of Janet’s influence mostly refers to books written before the First World War. Manifestly Janet was fighting for long-term issues, different from short-term vision could handle. After a first acclaim at the end of the 19th century, he had to wait 50 years (30 years after his death) to see that what he had sown was gradually growing.

Section 3. Pierre Janet: A first form of Psychological Analysis\textsuperscript{44}

“Psychotherapy is a repertoire of all kinds of therapeutic methods, physical as well as moral, which can be applied to illnesses that can be physical as well as moral. These methods are determined by taking in consideration psychological data observed previously, and the laws that govern the development of these psychological facts and how they associate with each other, or with physiological facts. In one word, psychotherapy is an application of the science of psychology to treat illnesses.” (Pierre Janet, 1923, \textit{La médecine psychologique}, III, II, p. 152. Approximate translation)

\textsuperscript{43} See Heller, 2012, pp. 212f, 400f. Cannon’s homeostatic model was close to Bernhard’s Lamarckian psychophysiology.

\textsuperscript{44} Janet’s works mentioned in this article are freely available at the web site of the Bibliothèque Nationale de France (http://data.bnf.fr/13091496/pierre_janet/). In his review of my 2012 book on body psychotherapy, David Boadella (2013) criticized my omission of Pierre Janet’s influence of body psychotherapy. I thank him for having forced me to at least partially repair this omission in this text. It has indeed changed my view on the history of psychotherapy. To my knowledge, most of Janet’s publications I refer to are not published in English.
Like most early psychologists, Pierre Janet studied philosophy and medicine before he specialized in experimental psychology in the laboratory of Théodule Ribot. Ribot was the first professor of experimental psychology at the prestigious Sorbonne, in Paris. Janet then joined Charcot’s team at the Salpêtrière hospital as a psychologist, with the aim of creating a psychological approach of the psychological causes of hysteria. It is during this project that Pierre Janet (1886) founded a first form of psychotherapy called *Psychological Analysis*. The expression “psychological analysis” had been used by several authors of the XVIIIth and XIXth centuries, such as Condillac, Maine de Biran, and Wundt (Van Rillaer, 2010). For Janet psychological analysis is a field rather than a school. This field includes all forms of interventions that attempt to understand the psychological causes of mental illness, and all forms of psychological intervention that can repair psychological dysfunctions. It does not represent a specific school, and easily associates itself with medical forms of intervention that focus on the physiological and anatomical causes of mental illness. He would probably have accepted that his way of practicing psychological analysis was influenced by his personal interests, but I doubt that he would have accepted the idea that his way of practicing was the only possible form of psychological analysis. This attitude respects the cognitive ethics that academia would expect from a fully trained scientist and psychologist. Medical practitioners often have a more competitive approach, in line with the economical requirements of a practice that is not always supported by an institutional frame. Thus Freud, who had strong anxieties concerning the profitability of his practice, seems to have been the one who introduced the practice that such an appellation could become a protected and personalized label. His form of psychological analysis became a movement with dogma, from which deviant colleagues could be excluded (Adler, Jung Reich and Lacan are well-known examples). Janet never accepted that a respected field could be treated in such an unethical way, as it excludes free scientific enquiries on various possible hypothetical mechanisms, and imposes preconceived knowledge that is anchored on the impression the founding guru figure of such a school is animated by an innate genius. Using the name of a field he was a part of to designate such a sectarian school was for Janet the manifestation of an unethical stance (Janet, 1923, 1913). That Freud tries to impose the notion that the Oedipus complex is a universal innate propensity is admissible, if one accepts that even the greatest scientists may have private motives as well as creative ideas. This conviction emerged at a particularly difficult moment for Freud, just after his father’s death, when he stopped taking cocaine.46 What was choking for people like Janet was the appearance of well-trained practitioner who brandished this his hypothesis as if it were an evident truth and a banner that could impose Freud’s version of psychological analysis to the whole world. The worst, for Janet, is that during his lifetime this Viennese strategy of transforming psychological analysis in a sectarian movement called psycho-analysis worked magnificently... not in academia, but in the Medias and in most intellectual circles (artists, patients, and so on).

Charcot’s vision of hysteria combined anatomical, physiological, neurological, psychological and traumatic causes. Janet’s psychological analysis was designed to develop

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45 Traces of Freud’s financial preoccupations can be found in his correspondence with Martha Bernays (who became Freud’s wife), Joseph Breuer and Wilhelm Fliess.
46 See for example Freud’s famous letter to Fliess, dated 15.10.1897.
psychological therapeutic techniques that aimed at improving the psychological weaknesses of these patients, while others in the team addressed other dimensions of this illness. This required a form of psychotherapy that can be used in a team, and that takes into account the knowledge base of other forms of medical intervention. This could only be done by approaches that situate psychological dynamics in their organismal context. I have already shown that the team’s vision evolved and demonstrated that psychological dynamics played a central role in hysteria. Much more so than, for example, in epilepsy.

The fame of Freud’s psychoanalysis and its heavy clinic politics had pushed Janet’s reputation as the founder of psychotherapy into the background for fifty years. For twenty years an increasingly large number of psychiatrists, psychologists and psychotherapists, including body psychotherapists, are suggesting that it could be useful for the whole field to reconsider Janet’s proposal on psychotherapy in the light of what we have learned since (Van der Hart and Van der Kolk, 1989; Boadella, 1997). Janet’s approach, strongly influenced by 19th-century psychiatry, requires the coordination of several skills. Today it could serve as a basis to encompass the wide variety of emerging psychotherapeutic approaches that are finding useful applications based on the latest scientific and philosophical formulations. Most of the psychotherapeutic skills that have appeared since the 1950s did not use a frame such as Janet’s to situate their approach in the general filed of psychotherapeutic modes of intervention. Most just fought for the right to explore in this domain without being destroyed by the intense completion of this field. The coordination of these approaches for the benefit of the patients is only now becoming a subject of discussion.

Psychoanalysis has an obvious responsibility in stifling discussions on the combination of methods proposed by Janet. As we shall see when I discuss Freud, it is possible that psychotherapists needed, for a while, to focus on a few methods, to have the time to understand what a psychotherapeutic method is and what it can do. It seems that the capacity to think in terms of repertoires of methods has come. Psychotherapy is at last growing out of its needs for parental figures and can now focus on issues (Van der Kolk and Van der Hart, 1989). Janet’s proposal also included a close connection between experimental psychology and psychotherapy. This trend has become fashionable once again since the 1990s (Van der Kolk, 2014; Van der Hart et al., 2006; Van der Kolk et al., 2001). When publishing our interview of Paul Fraisse (Fraisse, 1992), he reminds us orally that just after the Second World War he had proposed to psychoanalysts that they join the Faculty of Psychology or the Sorbonne in Paris, when it was being restructured, and that they refused to downgrade in such a way what they were elaborating.

Janet is not a genius. He has not invented a concept. He was a reference for certain points of view that had been explored when he was a student (by Charcot, Ribot, and so on), and that could have become characteristic of a certain French Psychology. He defended the spirit of his teachers and early mentors against new fashionable ideas that could not replace those he fought for, and defended young psychologists who, like Piaget, developed the psychological vision he fought for. This lack of genius is probably one reason why Janet gradually became more a reference of the past than someone who attracted innovators, but this may also be the reason why he has become fashionable again. The

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47 I thank Marulla Hauswirth for this important reference.
48 Known as L’Institut de psychologie de l’université de Paris.
ideas he defended for half a century are often still valid, and the proliferation of psycho-therapy schools and the industrialization of psychiatry have scattered and fragmented our clinical knowledge to such an extent, that returning to Janet’s sound synthetic vision and ethic is a sound step backwards. Having reconstructed ourselves and reunited our forces around Janet, clinical psychologists may then jump forward with new resources, a more solid scientific ethical stance and an imagination that has eliminated some of the trash that has blinded it during the past decades. My suggestion is that this moment of rest can help us to spot themes for which we have become color-blind.

If one reads books such The Psychological Evolution of Personality (1929), one notices that it is full of ideas that have been simplified and then disseminated in psychotherapy school with the comment “my teacher used to say…”, or “I have observed that…”. Thus Vygotsky⁴⁹ and Piaget both attribute to Janet a sentence that has been pronounced by many psychotherapists:

“(...) one finally always applies to one-self conducts acquired in function of others.”⁵⁰

In fact Janet’s formulation has, as often, more nuance, as he specifies that applying what we do to others to ourselves is a “more difficult” operation (1929, p. 288). His prudence is today justified by researchers who show that an individual’s capacity to analyze and evaluate others is sharper than the tools available for self-analysis (Fogel, 2009: p.55f; Gergely & Unoka, 2008). According to these researchers, this is true at a neurological and at a psychological level. With my patients I often end up saying something like “what you do to others you often do to yourself,” with the assumption that what you do to others is often more accessible to consciousness than what you do to yourself. I may have a patient who feels guilty because he has such a bad opinion of his parents, and who do not yet realize that he has a bad opinion of themselves. It can take a few years, in some cases, before a patient can realize that he uses the same mental schema with himself and others. I have often used this sentence, learned during my training, without knowing that it had been discussed by psychologists I had always admired, like Piaget and Vygotsky, who had somehow acquired it from Janet. I have met several colleagues, trained in different schools, who also use this therapeutic slogan when it is useful, without really knowing where it comes from. I am not suggesting that Janet “invented” these ideas. I prefer to suppose that he has filled his books with tools that are often used by many psychotherapists today. This clinical knowledge sounds banal to many, but they form notions that are often used by all in a simplistic way, while Janet often tried to show that they should be used with a bit of skepticism, and an exploratory stance, as each patient is a unique set of schemas.

Janet had a sound approach to clinical issues, and some of his formulations are still used by clinicians who have not even heard of Janet. This is quite habitual in the illiterate realm of psychotherapists, where one learns to use tools from a teacher who can only say

⁴⁹ I have that discussion in the French version of Vygotsky’s History of the Development of Higher Mental Functions, translated by Françoise Sève for La Dispute, 2014, p. 280.
⁵⁰ My translation of: “(...) on finit toujours par s’appliquer à soi-même les conduites acquises en fonction des autres. (Piaget, 1964, p. 52) »
that he acquired it during his own training. The original inventors of these tools are often forgotten in the limbos of history.

**The Hypnotic Splitting of Conscious Dynamics**

He [Janet] described multiple centers of automatic activity and parallel selves. These subconscious selves were the result of psychological dissociation. From his researches, Pierre Janet had altered Descartes’s famous phrase *I think, therefore I am*, to *We think, therefore we are*. (Makari, *Revolution in Mind*, 2008, p. 49)

For Janet, psychology is a science. He is proud of being one of the first psychologists who explored how this new science can be used to heal people who suffer from psychological diseases. His methodological reference was Claude Bernard’s 1865 *Introduction to the experimental study of medicine*. This new psychological science attempts to specify the fuzzy contours of what philosophers have called the mind, and what psychiatrists call mental and nervous illnesses such as melancholia, schizophrenia and hysteria.

The organism is a chest of drawers with metabolic dynamics close to the floor and psychological routines on top.

Janet situates psychology in the organismal chest of drawers described in the previous sections. However, even this psychological drawer contains layers of procedures that are relatively distinct from each other. Thus, sentiments have some conscious constituents, but these are relatively simple. Routines that are often considered more complex, such as intelligence and explicit perceptions, can only produce partial, simplified, and biased accounts of a sentiment (Janet 1927, p. 17). In a filmed interview, Piaget (1977, first minutes of the film) makes a similar distinction when he explains that conscious movements follow a process that conscious rationality cannot really apprehend. One can have a correct movement (it handles an object in an appropriate way), and have a wrong theory of why one does this movement. For example, explicit conscious routines cannot easily perceive the strong links that associate sentiments with somatic (e.g., visceral) dynamics (Janet 1927, p. 18). The same can be said of behaviors activated by a subconscious hypnotic injunction. The more rational dimensions of thought are quasi-blind to the interfaces that connect conceptual thinking to somatic dynamics. This blindness has recently been documented (Fogel, 2009: p.55f; Gergely & Unoka, 2008). The same dichotomy can be observed in artificial intelligence. The construction of robots has shown how complex the calibration of simple movements can be (Newell & Simon, 1972). Yet, most of the time, when an engineer writes a software program he focuses on routines he can read and write on a screen and lets another set of hidden hardware routines deal with electric circuits. From the point of view of his explicit awareness, he does not need to think of the interface that connects what he writes with machine procedures, as long as he obeys the rules that define a programming language. The same happens with our daily explicit thinking. Sometimes psychopathology may be caused by “bugs” that can be detected within the software.

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51 This distinction remains relevant for some experimental psychologists today. For example Philippe Rochat (2014, p. 31) writes the following on the early development of consciousness: “Newborns are not yet conceptually aware of being themselves alive in the world, obviously. However they are experientially aware.”
procedures. However, for Janet and body psychotherapists, there are cases when the therapist must also consider the connections between conscious procedures, sentiments, physiology and gestures. They must then proceed like computer engineers who need to think of how a program and circuits are connected to solve a particular problem.

The layers of consciousness also include phenomena such as the splitting of explicit consciousness that generates the subconscious that Charcot and his team often observed during hypnosis, in somnambulism and in hysteria. In Janet’s language, this splitting of consciousness can weaken moral judgment. For Janet, moral judgment is a psychological power that allows a person to go beyond his automatic reactions and to strengthen those conscious dynamics that support rationality and will power (Janet 1889, p. 475). Janet’s Psychological Analysis was designed to assess complex mental modes of functioning, that can dysfunction internally (e.g., psychological routines that generate irrational thoughts, or that split subconscious and conscious processes as in hysteria), or that have a chaotic interaction with neurological sensory-motor procedures (as when the psychological conflicts of hysteric patients activate strong spinal reflexes that resemble epileptic discharges). This was for him a field of research which was sufficiently complex to provide enough work for a variety of approaches.

In the chest of drawers imagined by Janet the various phenomena he could observe were coordinated by a complex web of nonconscious routines described by the neurologists who imagined the existence of what Gauchet calls a neurological unconscious. This complex web generates thoughts, impressions, behaviors, gestures, postural dynamics and associated physiological dynamics. Janet follows a tradition that can be associated with Kant, which assumes that a single nonconscious activity spontaneously coordinates thoughts, physiology, moods, and gestures.

From Automatisms to Default Adaptive Ways of Doing Things

Janet’s formulations, which I have already discussed, are sometimes close to Alexander Lowen’s (1975), when he states that mind and body are two sides of the same coin. Janet’s 1889 book focuses on automatic behaviors often observed in psychiatry, not on the higher, mental functions analyzed 40 years later by Vygotsky (1997) and Luria (1932). Janet explicitly underlines that he is talking of a unique routine that always activates mental and physiological manifestations conjointly. He is talking of sensations and images intimately linked to body sensations and movements of the limbs. He agrees that this view maybe a simplification of what really happens, but that a more complex model of these associations between mind and physiology could not be produced at the end of the 19th century (Janet, 1889, preface to the second edition, vol. 1, pp. 10-11). In the conclusion of the psychological automatisms, Janet again stresses that the mind is part of the regulators of the organism and cannot be separated from other regulators of the organism.

52 A similar phenomenon has been observed with “split-brain” epileptic patients, in the 1960s (Gazzaniga et al., 1965).

53 Although they use another language, this argumentation can be found in most humanistic psychotherapies. The utility of strengthening moral resources is particularly manifest when working with addiction, which often creates somatic and psychological dissociation (Caldwell, 2001).
They all work conjointly. All movements of the body automatically activate relevant psychological dynamics, and all mental activities automatically mobilize relevant physiological activities (Janet, 1889, conclusion, vol. 2, p. 117f).

Climbing to a more theoretical view (Janet, 1889, conclusion, vol. 2, p. 179f), Janet assumes a creative propensities of the organism to organize the highly varied and “heterogeneous” routines that it contains. This creative dynamic synthesizes all sorts of routines (physiological, behavioral, sentiments, memory, instincts, representations, sensations, etc.) to fulfill certain aims. Consciousness plays a crucial role in this synthetic organismic creativity. Having created synthetic combinations, the organism protects them from destruction, so as not to lose what it has constructed. Thus, in psychopathology, one often observes mechanisms that may be poorly constructed (e.g., because of a physical handicap or an unsupportive environment), and which hinder the organism to accommodate to its present situation. Since Piaget, these synthetic creative constructions are called ‘schemas.’

Piaget focused on the development of higher intellectual functions during childhood. He was therefore less interested in the affective and bodily components of schemas. He mostly focused on how intelligence associated itself with sensorimotor routines to develop specific cognitive skills, and assumed that intelligence gradually becomes increasingly independent from sensory-motor requirements. Initially trained as a biologist, he nevertheless never denied that importance of organismic regulators in the development of intelligence (Piaget, 1967). After Piaget the term schema was developed by researchers who became closer to Janet’s notion of synthetic routines that combine physiology, affects and mind. For example clinicians have proposed a form of schema therapy that works with the assumption that the affective dimension have a deep impact on the dynamics of the schemas they focus on (et al., 2014). Most body psychotherapists do not use the term schema, but they certainly have the notion that the organism is full of specific synthesis of heterogeneous parts of the organism that require close scrutiny from psychotherapists (Pat Ogden et al., 2006).

Let us now consider the following quote from Janet (11):

Une étude sur l’automatisme psychologique nous amenait à étudier surtout les phénomènes de l’habitude et de l’association des idées dans lesquels les images se succèdent régulièrement les unes aux autres, en un mot, cette activité qui tend à conserver et à répéter. Mais nous avons toujours cherché à démontrer que, pour nous, cette catégorie de phénomènes et cette forme d’activité n’existaient pas seules dans l’esprit humain. « Sont suggérées les unes par les autres, disions-nous, les pensées qui auparavant ont fait partie d’un même tout, d’un même acte de connaissance ». « L’automatisme ne crée pas de synthèses nouvelles, il n’est que la manifestation des synthèses qui ont déjà été organisées à un moment où l’esprit était plus puissant ». En un mot, cet automatisme n’est que la conséquence d’une autre activité toute différente qui autrefois l’a rendu possible et qui d’ailleurs l’accompagne aujourd’hui presque toujours. Non seulement ces deux activités, l’une qui conserve les organisations du passé, l’autre qui synthétise, qui organise les phénomènes du présent, dépendent l’une de l’autre, mais elles se limitent et se règlent réciproquement et ce n’est que la diminution de l’activité de synthèse actuelle, affaiblissement manifesté par toutes sortes de symptômes, qui permet le développement exagéré de l’automatisme ancien.
An automatism is for Janet a specific adaptation of the whole organism to its environment. We are here close to Lamarck's (1809, ix, 106). Behavior is not cut from the rest of the organism, as it is activated it influences physiology, mind and environment, while it is simultaneously influenced by all. It is like the pseudopods of organismic states. When it appeared, it was the manifestation of the organism’s creative force when it was looking for ways of solving an adaptive issue. But the aim of routines is to become relatively stable procedures. With use it stabilizes, and the immense work spend to produce it is now protected against change. Changing an established routine becomes increasingly difficult, just as it becomes difficult to modify what connects this behavior to more global physiological and psychological dynamics. Having produced this schema may have developed ways of not preventing the schema from surviving, just as the social environment often reinforces and existing behavior. Once automatisms are well rooted into related organismic states, they may influence that allows a person to pass from one state to another. Certain automatisms may facilitate a transition from one state to another, or prevent them, or activate irrelevant connections as in some psychopathological issues. You may notice that we are quite close to the formulations of Schema Therapy, but also to Body Psychotherapy, as it working only on a specific pattern is often not sufficient, as one must also open new possibilities for the more general organismic dynamics that have fostered that behavior.

Janet's working model for hysteria

The coherence of the mind

I have not found concrete traces of how Janet worked as a psychotherapist. The closest text on this subject seems to be his 1919 Medical Psychology54. However, the text informs us more on his therapeutic aims than on how he worked: « We say that there are not two faculties, one which is thought, and the other which is movement, there is at a given moment only one phenomenon that always manifests itself in two different ways (Janet, 1889, preface of the second edition, p. 11)"55. In other words, there is for him no necessary connection between the modalities that are used and the notion that produce them. The same meanings and functions are translated into different modes of actions. This model is different from the one I use, which assumes that a nonconscious activity is influenced by the way it connects itself to different modalities. Thinking while speaking or thinking while exploring a movement may often use different mechanisms, that do not always lead to the same impressions and/or conclusions. Similarly, for me, the repertoire of processes I use when I think alone is necessarily different from the repertoire of processes that emerge when my thinking is included in a dialogue with others (Heller, 1976). Some routines may be used in all cases, but the web of routines that is activated in one contextual frame will be different from the one that spontaneously emerges in another context. For example, I observed (Heller, 1976) that children do not understand their

54 For a survey of Psychological Analysis in English, see Van der Hart and Van der Kolk, 1989.
55 « Il n'y a pas, disions-nous, deux facultés, l'une celle de la pensée, l'autre celle de l'activité, il n'y a à chaque moment qu'un seul et même phénomène se manifestant toujours de deux manières différentes.» (Janet, 1889, préface de la seconde édition, p. 11). This position is close to that of William James which I quote further on, and to that of Alexander Lowen (1975).
movements in the same way when they are alone, or when they discuss with other persons. My observations taught me that other cognitive processes, modes of representations and forms of awareness are used in these two situations.

Janet, who was trained in hypnosis before Freud, also focused on spontaneous automatic associations of thoughts and images, as in dreams. He believed that their association in the present reveals that they were initially part of an identical set of routines, of “an identical act of knowledge (Janet, 1889, preface of the second edition, p. 11)”. They were therefore traces of an automatic procedure which existed in the past. These identical acts of knowledge he later called schema. The remnants of a schema that automatically become conscious, as in a dream, or repetitive anxious thoughts, have, according to Janet, no creative power. For Van Der Kolk (2006, p.xx), these associations may “have been appropriate at the time of the trauma”, but “are now irrelevant.”

Theses automatic associations are not involved in creative psychological processes. They seem to repeat past rituals. Patients “are continuing the action, or rather the attempt at action, which began exhaust themselves in these everlasting recommencements” (Janet 1925, p. 663). That is why they can be used as information of what existed. He also thought that the weaker the creative processes of the mind the stronger automatic associations become. Schema are often being composed of a variety of organismal procedures, as in the following definition of a perceptual schema:

When we perceive an object, for example an armchair, we say that as soon as one sees it we know which object we are perceiving, we recognize it, but we have the impression that we are doing nothing at that moment, because we remain standing, motionless while perceive this armchair. There is here an illusion, as in fact we already have in us the characteristic action of the armchair, which we have called the perceptual schema, in this case sitting in a particular manner in this armchair. (Pierre Janet, 1935, Les débuts de l’intelligence, p. 26, translated by us.)

As soon as he accepted that nonconscious notions spontaneously interact with ideas, images and gestures, Janet could explain why alienists often report chaotic impulsive movements as well as rambling thoughts and hallucinations. The strength of automatic reproductive conscious phenomena signal a weak inner synthetic creativity and organizations of the past. This weakness was already described by psychiatrists such as Paul Moreau, who is often mentioned by Janet. This analysis is not far from the notion of weak ego that Freud (1923) associated with mental illness in his second topic, more than thirty year later. In these days, Freud did not mention Janet anymore. Janet’s analysis explains why psychological analysis prioritized strengthening the moral strength of the patient,

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56 Quoted by Van Der Kolk, 2006, p.xx.
57 Quand nous percevons un objet, un fauteuil par exemple, nous disons qu’en le voyant nous savons ce qu’est cet objet, que nous le reconnaissons, mais nous croyons ne pas faire d’action à ce moment, car nous restons debout, immobiles en percevant le fauteuil. Il y a là une illusion, en réalité nous avons déjà en nous l’acte caractéristique du fauteuil, ce que nous avons appelé le schéma perceptif, ici l’acte de nous asseoir d’une manière particulière dans ce fauteuil. (Pierre Janet, 1935, Les débuts de l’intelligence, p. 26). The term « schème » was already used by Piaget in those days, so I do not know if Janet is the one who created the term, but he was certainly part of a group of psychologists, probably inspired by Kant’s use of the term in his Critique of Pure Reason, who thought in such terms. At that date Merleau-Ponty was also developing similar thoughts in the Collège de France, described in his Phenomenology of perception.
which was another expression used by Janet (1889, p. 475) to describe synthetic psychological creativity. Janet shows that when psychological synthetic creativity is weak, current conscious process suffers from a strong attention deficit. The patient can only combine a particularly small number of events such as sensations, reminiscences, motor images which he would need to be aware of to function like most other human beings. For example, Arnold Pick observed that hysterical patients cannot voluntarily combine more than a few simultaneous motor items, and can only become aware of a particularly small number of motor items\(^{58}\). For Janet, hysterical patient suffer from a restricted field of consciousness.

Janet’s theories on memory are probably unusable today, but some of his observations remain relevant, as they highlight the multiplicity and flexibility of the mind required to support his understanding of subconscious processes. Luria, for example, summarizes one of the most interesting points made concerning memory: “Pierre Janet proposed that complex forms of memory, as well as complex ideas of space and time, and number, had their sources in the concrete history of a society and were not intrinsic categories of mind as classical, idealist psychology believed them to be” (Luria, 1979, p. 58). For Luria, such a position requires a theory which adopts “the fundamental position that a change in the goal of a task inevitably leads to a significant change in the structure of the psychological processes which carry it out. A change in the structure of activity, in other words, implies a change in the brain organization of the activity. Therefore the transition from spontaneous to elicited speech, whether in dialogue or in monologue, not only changes the task and structure of the speech process but also changes the functional systems of the brain that supports these activities. (Luria, 1979, p. 172)”

Although Luria pushes Janet’s idea further, Janet’s (1889, p. 12) theory on memory is used requires a form of deep flexibility to show how memories can participate in the production of automatic associations, without being available for current conscious processes. Restoring and strengthening conscious awareness is thus a prime therapeutic goal proposed by Janet. This analysis will play a key role in psychodynamic and gestalt therapies. The constriction of the field of awareness is one of the symptoms of the more general deterioration of psychological capacities observed by Janet on hysterical patients that he (Janet, 1989, pp. 14-15) associates with certain criminal and perverse impulsive activities.

**Different Modes of Thinking**

Although Luria does not quote Janet often, he was - independently - exploring with Vygotsky’s team, ways of describing different modes of cognitive function in experimental settings. The experimental method uses for these studies is close to Piaget’s clinical method, as these researchers wanted to test ways of thinking that are relevant for the individual subjects they were analyzing. To isolate these modes of thinking this team of Soviet psychologists used two main strategies:

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\(^{58}\) Gurdjieff's movement method is based on the analysis that the capacity of coordinating simultaneous events is anyway small for most citizens, compared to the capacities that can be acquired after relevant training (Heller, 2012, chapter 12, pp. 307-315). This is an example of how Janet’s vision already coordinates elements of Freud’s theory and recent studies on attention deficit used by cognitive therapists (Tuckman, 2009).
1. **Developmental**: Describing how children modify their ways of associating objects and coordinating changes over times. These studies partially overlap with similar studies undertaken by Claparède and Piaget in Switzerland during the same years.

2. **Cultural**: Describing how individuals from different class and culture modify their ways of associating objects and coordinating changes over times.

In both cases, they observed that different ways of thinking could be observed. Those described for children by Piaget are well known. In Uzbekistan they compared groups of illiterate peasants who were using traditional methods and traditions, and modernized locals who worked in Soviet farms and had been to school. They noticed that illiterate traditional peasants classified objects in function of how they were used, while literate subjects used tools such as logic and abstraction more often. Here is an example (Luria 1979, p. 65):

- **Object A**: A complete circle.
- **Object B**: A partial circle.

For educated subjects these were automatically a full and an incomplete circle, while for traditional peasants they were just as spontaneously a plate and a bracelet.

Luria notices several ways of thinking on objects linked to how they are handled, to context, to habits and skills, to verbal formulations, and to conceptual thoughts. Like Janet, Piaget and Weber, he believed that the more intellectual tools are superior to the more automatic and sensorimotor ones. However he noticed that relying on ritualized modes of thinking could allow a more complex use of specificities, and were more resistant to change (Luria 1979, p. 69):

> “The concrete groups that our subjects created on the basis of this “situational” thinking were extremely resistant to change. When we tried to suggest another way to group the objects based on abstract principles, they generally rejected it, insisting that such an arrangement did not reflect the intrinsic relations among the objects and that a person who had adopted such a grouping was “stupid.”

Apart from ways of classifying objects, Vygotsky and his team observed different ways of combining notions. They followed the general outlook of the 1930s, which is to think that logical thinking (for example syllogisms) were the most evolved forms of combining observations. Today, thanks to artificial intelligence, other options are becoming equally valid (Clark, 1997; Kosko, 1993, MacNeil and Freiberger, 1993). A reanalysis of these old psycho-anthropological studies with such new tools could lead to different conclusions than those of Luria (somehow close to Lacan’s distinction between the symbolic and the imaginary).

From the point of view of the psychological options I defend (Heller, 2012, p. 78ff), practical thinking is not necessarily inferior to logical or abstract thinking. They are different complementary useful ways of relating to one’s environment, and of integrating what is happening. They are necessarily relatively well-differentiated modalities that can raise problems as soon as one tries to coordinate them. Most of the time their association depends on fairly fuzzy and heterogeneous nonconscious procedures. This position is closer to theories on embodied psychology than to classical organismal psychology. The
main difference is a more traditional search for coherent and non-contradictory formulations that framed classical organismal psychologies.

The observations concerning the resistance to change of “situational” thinking can be related to classical Freudian resistance and the resistance of sensory-motor schemas observed by Young. The idea here is that simplistic schemas are less flexible. This may be partially true. But as soon as we accept that what Luria calls “situational” thinking can be as complex and as useful as abstract thinking one can also assume that the organism may resist changes induced by simplistic ideologies that do not understand the incredibly complex requirements of organismal dynamics (Bateson, 1979, pp. 192-195). Thus resistance to change may also have survival values.

The Splitting of Consciousness

The notion of subconscious as defined by Janet overlaps, but is different, from Freud’s unconscious. As both notions remain clinically relevant, it may be useful to specify their difference. As already mentioned, Charcot’s team noticed that different forms of consciousness seem to characterize different psychological states such as hypnotism, somnambulism, split personalities and what is known today as post-traumatic syndromes. Everything happens if each of the states use different conscious procedures that cannot be remembered in other states. This aspect of the subconscious model received a spectacular support from neurological research on the split brain, where patients with a severed corpus callosum, in certain conditions, could not describe verbally what their conscious movements did. One aspect psychodynamic model that could have benefited from a refined distinction between subconscious and unconscious process is the analysis splitting procedures in borderline cases, as defined by Otto Kernberg (1984; 1992, chapter 3, p. 39). Here also, Kernberg associates the importance of chaotic mindsets with the weakness of the mental organization (of defense systems). Ogden, Minton and Pain (2006, p. 82) revisit this aspect of Janet’s notions on the strengthening of synthetic consciousness in the following terms:

“Traumatization has been described as a failure of integrative capacity (Janet, 1907). We propose that an inability to progress both hinders integrative capacity and is the effect of its failure.”

An interesting aspect of this quote shows how Janet’s formulation is being modernized in a form of systemic modeling. There is an important point here. It is not only that what is perceived in one sort of conscious state cannot be remembered in another state; but that in each state consciousness seems to function differently and to be able to tap on a different set of sensorial and mnemonic information. These different modes of functioning make it difficult to translate what is perceived from one state to another. Janet (1889, p. 15) stresses, in a chapter on psychological disaggregation, that there exists a wide variety of available psychological routines that can be combined in a wide variety of ways. Each mode of functioning “can be educated, form habits; and that in the realm of experiences it may constantly influence the normal personality. Often, phenomena determined in one of the layers of consciousness has an action, and a backlash on another layer. The whims, preferences of the subconscious personality as those of the conscious
personality constantly interact to complicate experience.\textsuperscript{59} (Janet 1889, preface of the second edition, p. 15; my translation). In a classical study on aphasia and the effect of brain lesions, Henry Head gives a nice description of how man, "under certain conditions, tends to react directly to the perceptual or emotional aspects of a situation; but symbolic formulations enable us to subject it to analysis and to regulate our behavior accordingly. (Head, 1926, p. 525)". These layers have become well known. They are part of the mechanisms body psychotherapists work with all the time (Downing, 1996).

In my definition of body psychotherapy, based on other authors, I describe a similar system of variable modes of functioning, used in everyday life, without a splitting or pathological functions. I just reported that in my work on the coordination of gestures, breathing, words and internal representations, it seemed that the mind could function in different ways when it connected itself to different modalities (words, inner imagery, breathing, gestures, posture, and so on. I can add an even more refined repertoire of nuances associated with different psychological tasks (dreaming, thinking, reading, and so on). These different modes of psychophysiological function is particularly visible in psychotherapies that use different states of minds to explore the resources of a person in an integrated way.

**Brain Activity and Psychological States**

Electroencephalography (EEG) is a method that uses detectors set on the cranium to detect general cerebral electric activity. It was first used on animals in the soviet union in the 1920s but it is only after the Second World War that it became an often used tool to distinguish states such as being awake, being asleep with or without dream and death. Already in the 1930s a team of Harvard medical school (Gibbs et all., 1935) investigated the relation between blood flow, loss of consciousness and epilepsy using EEG methods. These researches explore issues already raised by Charcot’s team under a new angle, which allows us to refine the psychology of states developed by Janet. Once again researchers observe distinct states that are characterized by types of representations (for example dreams or no dreams), and different inner atmospheres and general physiological arousal patterns (for example being awake or asleep, aroused or relaxed). Some of these researchers focused on the reticular formation in the brain stem as a web of specific neurons that can regulate the arousal of the brain both quantitatively (more or less arousal) and qualitatively (different states). This research quickly led to observations where one could observe how the brain stem activates different brain states (down to bottom influence) and how complex intellectual process such as the management of language can influence the reticular formation (Luria, 1979, 159ff; Penfield, Jasper, 1954). These general brain activation systems seemed to be related to other organismal systems such as peripheral blood flow and galvanic skin response\textsuperscript{60}.

\textsuperscript{59} «Que cette personnalité, ainsi formée, s’éduquait, prenait des habitudes: que dans les expériences elle collaborait sans cesse avec la personnalité normale (cf. infra). Bien souvent, des phénomènes déterminés dans l’une des couches de la conscience avaient une action, un contrecoup remarquable sur l’autre système de phénomènes. Les caprices, les préférences de la personnalité subconsciente comme de la personnalité consciente interveniennent à chaque instant pour compliquer les expériences. (p.15)

\textsuperscript{60} In the section on touch and psychotherapy, I mention recent research that shows that the brain stem is regulated by, and regulates, a great variety of physiological dynamics linked to skin, guts, hormones, the immune system, etc.
At one moment, Luria’s (1979, p. 162f) team focused on how orienting reflexes could participate in the recalibration of mental states. Orienting oneself towards a new unexpected stimulus is a reflex action that is experienced as being close to a shock. It immediately activates a specific type of high mobilization which gradually diminishes when the new stimuli become more familiar. These stimuli can be unexpected words, which require the participation of the frontal lobe. We can thus study the influence of the more complex neural structures on the brain stem in order to regulate psychological states. I have on purpose avoided using the expression “in order to regulate psychological states appropriately,” as we know how a word can irritate us and activate violent inappropriate states.

We are here close to several notions used in body psychotherapeutic. For example Trygve Braatey (1954, VIII.3, p. 261; 1947) associated Luria’s orienting reflexes to shocks created by surprise and the activation of a startle reflex. Reflexes are well known to be relatively a specific, so one could say that a startle reflex is not directly linked to fear, as I have often heard, but that fear is included in a repertoire of affects that is spontaneously associated to a startle reflex. André Bullinger (2004, p. 30) summarizes these discussions by writing that any sudden change in an ongoing flux of sensorial information will automatically activate an alert response. A more calibrated association between affects and a startle reflex takes more time. Gerda Boyesen (1985, p. 133f) developed body psychotherapeutic methods to work on the startle reflex. She was mostly interested in how repeated startle reflex could influence the muscular and psychological development of a person. However, contrarily to what is often taught in biodynamic psychology (by myself at times), a chronic startle pattern is not necessarily related to fear. It may for example also be linked to an environment in which it is difficult to predict what will happen (Beebe et al., 2010; Beebe 2011).

Luria (1979, p. 172) concludes that this area of psychoneurology shows how “a change in the goal of the task inevitably leads to a significant change in the structure of the psychological processes which carry it out. A change in the structure of activity, in other words, implies a change in the brain organization of activity.” There are two remarks I would like to add. The first is that this is not only true for the brain but for the whole organism. The changes described by Luria may occur within a single state of mind that restructures itself, or by connecting itself to one or several other states of mind as well. The second remark is linked to a change of frame. Luria lived in times when it was largely assumed in academic circles that these changes often led to a positive change, that organisms had a tendency to thrive for improvement. I do not think that this is necessarily true. Changes are often tried through trial and error processes, or using false theories. They can thus just as often lead to a destructive restructuration. An example will be given in chapter 7, section 5, when discussing how an organism can put itself in a permanent vicious circle such as stress.

The More or Less Connected States of a Person

Janet distinguishes extreme differences between states, such as sleep, awake, hypnosis, somnambulism. I have noticed with patients who suffer from bulimia that they also describe something that looks like a state. They are witnessing themselves garbing food with being able to prevent themselves to do it. Here the dissociation is conscious, tangible, but again we observe a special mode of functioning (physiological, emotional and cognitive) that emerges as a general state of the organism. Another well-known example is
observed in body psychotherapy are people who have an emotional cathartic discharge with their body, and an empty mind. They cannot associate an experience, an emotion, an image, or any other mental representation with what their body is doing. This type of model is sometimes observed with people who suffer from a post-traumatic syndrome. This relatively rigid vision of a repertoire of states can be used as a basis to define a more refined and dynamic vision of psychological states, which assumes that humans are constantly changing from one state to another. In this vision, states can be more or less marked, more or less intense, and be more or less central to what is happening within a person at a given moment. Here is an example:

**Grounding and relaxation, as two states**: I ask a patient to take the grounding position for ten minutes, imagining she is a tree. Then I ask the patient to lie on a mattress and feel her inner sensations. Those are two “normal states” that can easily be activated during a psychotherapeutic process, to show through experience that every day we experience difference states. Passing from state to state is a current automatic dynamic. However, in some cases, it may be useful to explore if there exists a resistance to experience the connections between states. For example after ten minutes of grounding, lying down on a mattress may activate different impressions that lying down on a mattress without having done a grounding exercise.

A similar case could be made for meditation, as practiced in mindfulness-based psychotherapeutic interventions. One sits on one’s ischia bones, and one attempts to be explicitly aware of one’s in and out-breath for a fixed period. This exercise puts us in a particular psychophysiological state that can be situated between relaxation and hypnosis. One of the reasons why meditation is so popular is that activates a form of awareness and reasoning that sometimes allows one to find solutions for issues that are currently generating stress in our daily life. Once this inspiration has emerged in our conscious dynamic, it remains conscious after we come out of the trance state, and be constructively used to modify important psycho-behavioral routines that had become habitual in our daily life.

We are close to the musical distinction between a harmonic (simultaneous notes) and a melodic (succession of notes) reading of a partition. Some music (for example Beethoven’s seventh symphony) can be perceived as a succession of columns and melodies that occur in more or less coordinated articulations. In body psychotherapy we are particularly sensitive to such a harmonious organization of the organism, where a gesture, a thought, a sentiment may have a more or less dense organismal support.

There are a few old-fashioned ideas in Janet’s analysis I would not use today. The first, which was overwhelmingly popular in Europe at the end of the 19th century, is that it is reason and conscience that provides a unity and a coherence to the mind. There is for me not unity in the organism or the mind, even in reason (Heller, 2012). This part of European thinking has been gradually eroded by Freud’s theory, and more recently by artificial intelligence (Minsky, 1985; Fodor, 1983). The second theme is the lack of creativity of chaotic mind, which does not fit the biographical information we have of many geniuses (Artaud, Beethoven, Nerval, Rimbaud, Schuman, Tolstoy, Van Gogh and so on)\(^6\).
As in all the thinkers I discuss in this paper, the difference between scientific and ideological positions can sometimes be quasi inexistence. On the other hand, all have developed in some areas an exceptional expertise.

This position was still dominant in the 1950s, when what was then known as the "bourgeoisie" (educated and civilized people for the middle classes) believed in will power and correct manners. The youth movements of the 1960s associated this stance with the causes of two world war, Nazism, fascism and communism. Today one notices that the short-term proposals made by this generation does not help and there is a return to the notion of moral strength and "healthy" authoritarianism. One of the heroes of this trend is, interestingly, the same Marcel Gauchet (2010) who wrote such interesting books on Charcot and 19th-century psychiatry. Today he publishes interesting essays on the problems of democracy associated to issues on the need for an author to provide a coherence to a society.

This is for me the opposite from another position, which believes that the solution lies in a long-term, multi-generational, modification of how historical, cultural and psychological dynamics coordinate. In the domain of body psychotherapy, this point of view was defended by Wilhelm Reich (1946) in his Mass Psychology of fascism. Reich believed that character structures are structured by an individual triangular causal system which coordinates social, biological and psychological variables. A modification of an element of this triangular dynamic requires changes in the other two components. Some social reforms are needed to modify the health of the tissues of organisms, and others to modify the ethical stance of individuals. These will in return participate in the modification of social dynamics that can improve the coordination of this triangular interdependency. After thousand years of oppression that have ruined the quality of individual tissues and ethics, it may take centuries to achieve a real change that will materialize in the character structures of most individuals. These modifications cannot be achieved in the frame of a psychotherapy, or of a lifetime, but psychotherapy can induce steps in the right direction. A similar stance can be found in sociology, for example in Max Weber's books on how personal ethics, social dynamics and religion structure each other (Weber, 1913, 1920a&b). Pierre Bourdieu's (1979) work goes in the same direction. In history, Fernand Braudel (1949) also shows that by not having one's nose too close to a specific series of events allows one to understand the complexity and breadth of historical dynamics. I am opposing here two frames which have implications on psychotherapeutic approaches. In the first case an educative stance seems to be enough, while in the second cases an educative approach remains indispensable, but it must also leave room for the much more powerful nonconscious regulation mechanisms that include a trend that leads to chaos as much as one that can reinforce moments of coherence in a quasi-random way.

Given the meteorological dynamics of natural and human propensions, fighting for a more constructive interaction between our biosphere and human ethics remains a hard and constant fight, if one is willing, like all the above-mentioned authors, to believe that humanity could proliferate in less destructive ways. However arguing that one can rely on reason and survival needs is used by all ideologies of the world.
Janet and Freud

The interview of the patient must be as objective as possible. We limit ourselves to asking the patient to focus attentively on one of the images of the dream and to express the ideas that they evoke as they appear. (Jean Piaget, 1920, *La psychanalyse dans ses rapports avec la psychologie de l’enfant (I)*, p. 20; translated by Marcel Duclos for Heller 2012)

At first Freud openly recognized Janet’s influence on the birth of psychoanalysis, but then Freud’s movement became a river that tried to crush all that resisted its power. Freud clearly thought he was directing a movement that could only become victorious. The arrival of Jung was perceived by Freud not as a collaboration, but as the promise that he would open all the doors that prevented a strong recognition of Freudian psychoanalysis by the academic world of Europe and the United States. For example, in 1911 Freud writes a letter to Jung in which he urges him to strengthen his ties with Edouard Claparède, professor of psychology in Geneva and founder of the Jean-Jacques Rousseau Institute, which was known for its work in developmental psychology and pedagogy. For Freud, conquering Claparède could be the gateway to France. Jung had already written to Freud the 16th of December 1907 a contemptuous letter assuring that he could control Claparède:

“Claparède will hold himself in reserve for some time yet as he has no material; he is actually a psychologist. His benevolent neutrality is assured.”

When Jung left psychoanalysis, he had indeed introduced psychoanalysis in strongholds of academic psychology and psychiatry. This warrior stance is part of the jubilation that animates the Freud-Jung letters, but also Freud’s correspondence with Karl Abraham and Ernest Jones. As psychoanalysis developed, it became a hornet’s nest of power games (Makari, 2008).

For Janet (1923) even unscientific methods of cure can heal many people, and sometimes in a remarkable way (same, p. 9). Successful healing methods already existed in the Egyptian antiquity. Contemporary “mind cures” he discusses are the Christian scientists of “Mrs. Eddy” (same, p. 13), and “the psycho-analysis of M. le Dr S. Freud (de Vienne)” (same, p. 26). He also shows that Charcot’s explanation of how hypnotic trance could cure patients from hysteria was insufficient (Janet, 1923, p. 17ff). For Janet, cure does not validate the theories used by healers, as they might not know which aspects of their method is efficient. Furthermore, Janet prefers to focus on those that are not healed by a known treatment, because they are the ones who need support.

For Janet, some well-known healing movements use simplistic concepts and techniques that attack all forms of scientific exploration that do not agree with their views. For example, Freud assumed that the Oedipus Rex complex was universal after having

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62 For example: “The readers of this lecture are probably aware that P. Janet, Breuer and I, as well as other authors, have recently sought to outline a psychological theory of hysterical phenomena. (Freud, p. 1888, 141)”
seen a few patients and observed it in himself. The same could be said, or that all traumatic events are necessarily of a sexual nature. These types of analysis are not only hasty generalizations, they are also a way of reducing what patients express to what one believed before seeing them (Janet, 1923, p. 60-61; 1913). This incapacity to accommodate one’s thinking and interventions to individual particularities is for Janet the opposite of a scientific approach. Rigor requires that even when one has a plausible explanation, one should look for other equally plausible explanations before choosing an option. Most of Freud’s early theses confirmed some of Janet’s published observations; but Janet always showed that one of his hypotheses is only true for a specific set of patients. Thus, Charcot had published on hysterical patients that suffered from a variety of traumatic events (e.g., a car accident, a sexual trauma, etc.), but only Freudians dared to publish that all hysterical patients suffered from sexual trauma.

Most academic psychologists shared Janet’s position on the dogmatism of psychoanalysis, as in the following quote from Piaget:

> It is undeniable that this doctrine of Freud . . . is of great interest. . . . Nonetheless, can we say that the principle which seems to constitute his central theme, but which, in reality, is more theory than practice, I am referring here to his pansexualism, would be sufficiently evident to lead to a conviction? It is permissible to doubt it. There is something a bit outrageous to want to bring by stone or by force certain tendencies to the sexual instinct that somehow seem more primitive, like the revolt of a son against his father, often due to the simple survival instinct. . . . There are no parts in the psychic life that does not nourish some link with the whole of the personality. But to reduce this entire complex to a single fundamental tendency is to expose ourselves to insurmountable difficulties. (Jean Piaget, 1920, *La psychanalyse dans ses rapports avec la psychologie de l’enfant* (I), p. 34; translated by Marcel Duclos for Heller 2012)

Until the 1980s psychoanalysts often vigorously attacked psychologists who, like Piaget, Vygotsky, and many others, did not believe in Freud’s. The standard strategy was to tell these psychologists that their personal neurotic defense system prevented them from accepting a theory that could cure their neurosis. This may be partially true in some cases, but it is not a scientific argument. After the 1970s, these power games of the psychoanalysts were finally contained by academic scientific ethics.

63 Freud gradually abandoned what is known as the *seduction theory* from 1897 onwards, but it still lingers in the psychoanalytic mythology today. He nevertheless maintained that traumatic sexual fantasies are often the main cause of neuroses (Freud, 1916, III.21, p. 380).

64 Freud’s public reaction to Janet’s 1913 conference on psychoanalysis was the following: “everything good in psycho-analysis is a repetition of Janet’s views with insignificant modifications, and that everything else in it is bad. At this congress itself, indeed, Janet had to submit a number of corrections by Ernest Jones, who was able to point out to him his insufficient knowledge of the subject (Freud, 1914, p. 328).”
Janet would probably have made similar remarks to classical body psychotherapy approaches such as those of Reich, Lowen, or Gerda Boyesen. On the other hand, he would probably have appreciated recent observations made by scientists who make detailed analysis of what actually happens during psychotherapy sessions (as in Heller et al., 2001; Frey et al., 1980). Daniel Stern, in his 1995 *Motherhood Constellation*, proposed a first conclusion of this set of studies. He shows that most therapies have an outcome that is often constructive for patients, but not in a way that can be predicted by the theories used by psychotherapists. Adequate behavior therapy can modify representations that are the target of psychoanalysts, and loosen muscular tensions that are the target of body psychotherapists. This grid could be used for most psychotherapeutic movements. Stern, like other experimental psychologists today, claims that we would need scientific research to understand what really happens during a psychotherapeutic process and what makes them efficient. The differences between particular psychotherapy modalities seem to be one of style more than one of efficiency, once one agrees that some clinicians are more efficient than others are. Some people feel more creative in cognitive therapy, others in body psychotherapy, and others still Transactional Analysis (Totton, 2003, p. 14). What really happens during psychotherapy session is not adequately - or at least insufficiently - described or explained by psychotherapy schools. Enquiring on the realities of therapeutic relations has also become a central preoccupation for psychotherapists who “emphasizes the subjective experiences of both client and therapist as they are happening moment by moment,” in the verbal and nonverbal dimensions (Westland, in print, introduction, p. 5).

Janet advocates a strict clinical approach, where each patient is described in detail (verbal and nonverbal expressions, neurological and physiological medical status), as exactly as possible, while leaving interpretative options as open as possible. Psychotherapists should then advance scientifically. Which is to say that a case study should test a
hypothesis that is situated in a theoretical frame. This hypothesis is necessarily as economical as possible.

**Janet and body psychotherapy**

Short-term history: Janet-Reich as founders of body psychotherapy?

Reformulating the aims of body psychotherapy by (re)reading Janet was an inspiring move that was probably triggered by historical and political circumstances specific to a new need imposed on psychotherapy by health institutions: recognition. On the one hand, most psychotherapy movements needed to get rid of Freud’s tutelage, so as to gain enough intellectual freedom to include recent developments in the field of human sciences, and one the other hand all psychotherapy movements were asked to demonstrate that their stance were relevant from a scientific point of view. They were not asked to restrict what they were doing to known scientific facts, as science could not provide enough relevant knowledge, but they were required to use a scientific ethic of knowledge and to differentiate themselves more clearly form modes of functioning that was sometimes close to how sects functions. Psychoanalysis could be against science in some cases. This, of course, brings us back to Janet’s critic of Freud. It partially explains the move towards Janet made by Van der Kolk and Van der Hart (1989). It is through this route that Janet’s name entered in the somatic psychotherapy literature in the USA (Ogden et al., 1996). For similar reasons European body psychotherapists tried to meet the new requirements, as not doing so would mean that health institutions would not refund their treatments. This pressure had the creative effect of forcing some body psychotherapists to reevaluate their history. Good examples of that movement are David Boadella and Courtenay Young (Young and Westland, 2014) who were particularly involved in obtaining recognition for body psychotherapy from the European Association of Psychotherapy (EAP). Both had a notoriously integrated many of Reich’s idea, but Reich was difficult to swallow by health institutions. As Boadella was anyway defending an eclectic integrative and synthetic eclectic approach, and as he had a particularly good knowledge of the history of body psychotherapy (Boadella, 1991), he also arrived at the conclusion that a rereading of Janet could be particularly helpful to reformulate the propositions of body psychotherapy in a way that could appeal to the EAP and health institutions. This was a win-win move, as it series of cascading effects:

1. Body psychotherapists were forced to revisit their habitual clichés, and integrate other forms of knowledge than what had by then become neo-Reichian folklore (Downing, 1980).

2. This reformulating work has generated new creative ways of dealing and using body psychotherapy (Downing, 1996; Geuter, in press; Heinrich-Clauer, 2012; Marlock & Weiss, 2015).

3. The interaction between academic psychology and psychotherapeutic formulations have become more constructive.

Boadella’s 1997 article on Janet appeared in the EAP journal (International Journal of Psychotherapy), when Biosynthesis wanted to be recognized as a psychotherapy that is compatible with the scientific requirements of the EAP.
Long-term history: the development of knowledge is the issue

As far as the science history goes, I was deeply influenced by Fernand Braudel (1949), who defended a long-term analysis of history. As in the quote at the beginning of this text, he left aside the biographical analysis of kings and generals, and focused on socio-economic transformations that last centuries. Thus the famous battle of Lepanto may have been won by a particular set of tactics, but this war against the Turks would have been won anyway, given the amount of gold that poured from the Spanish colonies in South America. The traditional equilibrium between east and west was thus destroyed by geo-economic dynamics.

Similarly, discussions on Janet, Freud, Reich and Lacan seem to be fascinating for psychotherapy schools, but I prefer to focus on in depth transformations of the knowledge base that influence psychotherapists and that is influenced by their work. This explains why I tend to situate psychotherapy in general, and body psychotherapy in particular, in an organismal psychology that is developing within the frame of evolution theory. Even evolution theory has had considerable developments since Lamarck’s first proposal (Szyf, 2014). I will continue this discussion on the “kings” of psychotherapy and their battles, as it is of interest in some important debates that are raging around me; however this discussion is framed by a larger context. Janet, Freud and Reich are not the only psychotherapists that are influenced by that general frame, and some psychotherapists – like myself – are more deeply influenced by this general frame than by the particularities of these alleged kings. I have read them with passion all through my career as particularly stimulating and marking manifestations of the general frame. However, there are other equally inspiring texts in my references. Referring to Plato or Freud requires a continuous rethinking of texts written long ago. This deepening of my understanding of past authors has nourished me, as it forces me to increase my awareness of my roots. Working on roots is an important chapter in my thinking and in my work as a psychotherapist. But roots are part of a tree, or even of a river. Having the impression of being a part of a frame that will continue to develop after my death is what gives a direction to what emerges from my roots. It allows me to hope that what I do and write is part of a river that is still trying to find its sea.

Trying to install Janet as a justification of the present positions of body psychotherapy is for me more of a clever move than an interesting analysis of Janet’s influence of the whole field of psychotherapy. Janet’s formulations of how to create a field of investigation on psychological analysis provides a frame in which body psychotherapeutic formulations and techniques can easily fit in, but Janet aimed at the general frame rather than specific modalities. The publications of Boadella and Young on Janet are full of interesting points that encourage all of us to explore how body and somatic psychotherapy’s historical background could be summarized with a consensual scenario. This scenario will, of course, be integrated in another scenario on the historical background of psychotherapy in general, which will necessarily have Janet as one of its founding figures. I hope that the discussion opened in this presentation, as well as by authors I refer to, shows that such a historical research is essential for a clarification of what psychotherapy is about.
The Rift Between Scientific Psychology, Psychotherapy and Psychiatry

The debate between Janet and Freud strengthened a fissure that was growing between psychiatry, psychotherapy and psychology. To understand that fissure one must understand that in the 18th century, madness was mostly the preoccupation of religious therapeutic institutions, medicine and philosophy. What is today referred to as psychology (as a scientific discipline) was founded by people who were trained in philosophy and medicine. The general context was that of creating medical asylums presented as more human than those that were previously managed by religious institutions. These medical psychiatric institutions were presented as more human because they were based on scientific research rather than dogma. The research spectrum of these institutions ranged from the study of innate causes of madness (due to malformation, race and/or class) to a new scientific study of psychological dynamics. The bridge between these two causal systems was, as already mentioned, neurology. The first psychologists were often trained in philosophy, medicine, as well as other sciences (physics, chemistry, biology and/or anthropology). Here is a short list of the training of some of the first experimental psychologists:

- Wilhelm Maximilian Wundt (Germany) trained in medicine, philosophy and anthropology. He began his career in the laboratory of von Helmholtz with the study of sensory-motor dynamics, and finished it by studying the interaction between psychological and cultural representations.
- Théodule Ribot (France) studied medicine and philosophy. His laboratory mostly studied the interaction between cognition (e.g., memory), affect, character and heredity.
- William James (USA) was a medical doctor (physiology) and a philosopher (pragmatism). Like his other colleagues, he focused on how cognition, affects and physiology associate. He also studied parapsychology and expressive behavior.

Psychotherapy was initiated by medical doctors who followed the ethics of that field. People like Freud (neurologist), Adler (general practitioner), Jung (psychiatrist), Reich (psychiatrist) and Lacan (psychiatrist) developed psychotherapeutic methods in the same spirit as medication is sold in the medical market. A hypothesis is exploited and developed ("by stone or by force") as if it were the only possible one. For Janet, and most psychologists, a hypothesis only makes sense if it is an optional view. For example, one option is that all drives are massively influenced by the sexual instinct, while another option is that each drive has its own set of procedures. The reader can then imagine other options while she or he reads these lines.

The first psychotherapeutic approaches that really imposed themselves were created by medical doctors with the form of competitive marketing that exists for medication. The theories were imaginative to the extreme, simplistic from an epistemological point of view, and blind to optional ways of thinking that were being developed. Furthermore, as explained elsewhere in this paper, they did not necessarily describe what was really happening during psychotherapy cessions, and explain why they were relatively successful.

Psychiatry is taught in a medical faculty, psychology in a psychological faculty, and psychotherapy in a psychotherapy school. These professions are therefore institutionally distinct. In many cases a person may have followed from one to three of these training curriculums, and in some countries only medical doctors are allowed to practice psychotherapy... with or without a psychotherapeutic training.

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remember reading psychoanalysts who would say that the important part of psychoanalysis is experiencing. They were probably right, except that the next step of the argument was that this experience necessarily proved that the psychoanalytic theory was correct. My point is that between what could be explored within the psychoanalytic setting and what was written, there exists an immense marshland of optional plausible hypotheses and explanations. Psychotherapists managed to form a few paths that allowed them to explore this marshland with apparent certitudes. These paths were often useful ways of dealing with important clinical issues, but were often presented as highways of certitudes. These unethical ways of dealing with theoretical issues justified some of the skeptical ironies poured onto psychotherapy by academically trained psychologists. But the conflict between psychologists and psychotherapists was not the only rift. As soon as psychologists and other non-medical “laymen” entered the realm of “psychological medication” (Janet, 1919), many psychiatrists reacted as if their domain was being intruded upon. Even today the right to practice psychotherapy when one is not a medical doctor is heavily defended through pressures on the legislative and health insurance systems. Even well-trained psychologists have a hard time accessing patients to improve existing forms of psychological analysis. This, of course, also inhibits the possibility of developing new scientific methods to explore psychological pain. Psychologists are often enrolled in psychiatric research laboratories, but often only as methodological experts, not as researchers.

In many countries, a medical practitioner with no training in psychotherapy and no training in psychology can dispense psychotherapeutic treatments, while life is made as difficult as possible for psychologists and psychotherapists who wish to do so

I have simplified a landscape that is more complex than what I have just written, but only slightly. The scientific and therapeutic exploration of human psychological sufferance remains a field where real research is particularly difficult, in terms of funding, institutionalization, training and rivalries. The big losers are, of course, scientists who wish to explore psychological dynamics as openly as possible, patients, and most of all citizens who would benefit from a more comprehensive approach of the mind by institutions (schools, cultural dynamics, working conditions, and so on).

Section 4. Introducing organismal psychology: genetic, cellular, anatomic, somatic, psychological and social routines are well differentiated but tightly and inextricably linked.

“organismal psychology, [ˈɔrgəˌnɪzməl ˈsɪkələdʒi] (psychology). A movement in psychology based on the theory that the individual is made up of elements composing a single organized system, and an element in the system cannot be evaluated independently of its position within the system.” (McGraw-Hill Dictionary of Scientific & Technical Terms, New York: The McGraw-Hill Companies, Inc., 2003.)

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Quote found on the net, in the web site of the Free Dictionary.
The traditional vision of organismal psychology

We use the term psychobiology (…) to indicate the organismal personality with all its functions (Luria, 1932, The Nature of Human Conflicts, p. 8)

Organismal psychology is a categorization of psychological theories that emerges when one looks at the history of experimental psychology. It groups movements that assume that psychology studies routines within the organismal texture of a person, and is designed to coordinate at least three types of phenomena:

1. **Physiological routines** that interact with the flow of information that circulates within an organism (neurological, hormonal, metabolic, genetic, and so on). If it were not so, the mind would have no power to act on other dimensions of the organism (e.g., behavioral virtuosity and posture), and it would have no information on what happens in its organismal environment.

2. **Cultural routines** that coordinate individual psychological routines. Art, religion, science and technology are examples of institutionally constructed disciplines that would not have emerged if there were no socially constructed routines that can combine individual psychological routines situated in different organisms. Examples of socially constructed connecting devices are language, tools, media, rituals, and so on. The intersection between socially constructed Medias and individual psychological dynamics is well summarized by Philippe Rochat’s (2009) title: Others in Mind, Social Origins of Self-Consciousness. It is also well described by Gregory Bateson’s (with Margaret Mead, 1947) observations of how persons coordinate their gestures in a more or less ritualized way.

3. In between these two dimensions, we also have an interactive coordination that use verbal and nonverbal behavioral skills to regulate how several organisms interact in a direct way (e.g., without socially constructed connecting devices) with each other and with objects. A person seen on a screen is not included in this list… only the interaction between the subject and the screen is. The reason for that is that nonverbal and verbal communication have the atmosphere of an encounter as their background. Examples of ways of studying this modality are Piaget’s (1962) studies of how children learn by playing with toys, or the Tinbergen’s 1972 study of how autistic children automatically interact with their caregivers.

There are, of course, several ways of labeling this set of theories. The Wikipedia website (October 2014) includes the following list of psychologists and neurologists under the heading of “organismal theory,” which already includes several psychotherapeutic movements: Kurt Goldstein’s Organismal theory; Ludwig Von Bertalanffy’s organismal psychol...
ogy as a subsystem of his general systems theory; Jean Piaget's theory of cognitive development; Heinz Werner's orthogenic principle; Abraham Maslow's Holistic-dynamic theory; Carl Rogers' Person-centered approach; and Fritz Perls and Laura Perls' Gestalt Therapy.

I have already shown that this movement began with Lamarck's evolutionary psychology (1820), which Darwin, Bernard, Piaget and Bateson knew and appreciated, but which most of the others refused to acknowledge for irrelevant ideological reasons (Heller, 2012, chapter 7). Charcot, Janet, Cannon, Selye, Laborit, as well as many others, could easily be included in this list. One could also add phenomenologist philosophers and psychologists that use terms such embodied or enacted cognition (Brunner, 1990; Rowland, 2006). This point of view is so widespread today that it is represented by a least a few members of most psychotherapy schools. It is particularly welcome in forms of psychotherapy that actively combine different dimensions of the organism, such as combinations between behavior, cognition and affects (for example the schema therapy of Young et al., 2003, or Boadella, 1987); psychoanalysts who focus on the coordination between experience and behavior (Beebe et al., 2010; Stern, 1985); or therapies focused on trauma (Van der Kolk, 2014) and stress (Selye, 1978). Most body psychotherapy schools can also be included in this list, however – to my knowledge – only Malcolm Brown (2001, 1988) and Gerda Boyesen (2001) explicitly present themselves as being strongly influenced by Kurt Goldstein's vision of an organismal theory. In this article, I will argue that body psychotherapy is the core application of the principle that psychological routines are imbedded in the regulation system of an organism. I point this out to show that this general outlook is not specifically associated to body psychotherapy, even if body psychotherapy defends this outlook with more detailed technical arguments than most other modalities. For example, "as neuroscience and infant studies are relevant to all psychotherapies they provide us with (meta-level) position through which we can dialogue with other modalities. (Westland, in print, p. 265)"

Most organismal researchers study either the relation between mind and physiology (Cannon, 1932), or mind and movement, but they seem to avoid associating mind, movement and physiology as three mutually interactive systems. Some, like Luria (1932, p. 19), even find such approaches incompatible. Thus, one of the originalities of somatic and body psychotherapy is to find such a triangular system unavoidable. The theoretical difficulties discussed by Luria may be one of several reasons why our field hesitates between the terms somatic and body, and now tends to use the term embodiment... as if there is still a mystery that needs to be unveiled before we can find a convincing name for this field.

At the end of the 20th century tried to produce a highly specific vision of how posture, sensory-motor patterns, affects and cognition calibrate each other within a living organism. His proposal is based on an attempt to integrate notions used by psycho-morticians working with handicapped infants and children, within the research strategies of developmental psychology used by Wallon, Piaget and Ajuriagüerra.

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69 I thank George Downing for specifying to me that these terms originated from USA phenomenologists (Paris, December 2014).
70 The "we" in this quote refers to body psychotherapy.
An anthropological vision of the organism in the 1930s: from Mauss to Luria

A useful example of how organismal theories function when they focus on a specific dimension of an organism, is how the French anthropologist Marcel Mauss (1934) deals with body techniques. The body techniques he is talking of focus on activities such as walking, running, breathing, swimming, jumping, massage, giving childbirth, and so on. He defines them as “the ways in which from society to society men know how to use their body. (Mauss 1934, p. 70)” Mauss’s analysis shows that even such simple actions vary in function of culture. Every person has a particular way of walking and running that can be caricatured by a humorist. Mauss also observes that this style may have common features in one culture that will not be observed in other cultures. Although most of these skills have an innate basis, they also need to be calibrated and educated by experience.

For example, today, training an athlete requires scientific medicine, teamwork, intelligence, motivation, relaxation, developing breathing and metabolic resources, having a sound cardiovascular system, and so on. For each of these dimensions the athlete requires a form of support that enhances his performance. You should be motivated in a certain way, eat in a certain way, love in a certain way and move in a certain way, if you want to run at the next Olympic Games. For Le Deuff (2002) a sportsman needs to train his mind in particular ways, to prevent it from continuously applying brakes on his capacity to reach an optimal performance as a sportsman. For Mauss “we are everywhere faced with physio-psycho-sociological assemblages of series of actions. These actions are more or less habitual and more or less ancient in the life of the individual and the history of the society” (Mauss, 1934, p. 85). Reading him, I can only imagine the mind as an immense variety of cog-wheels, which have their particular connections with an equally varied set of social and physiological procedures.
Marcel Mauss’s article on body techniques is a good example of how a particular dimension of the organism can only be understood properly if it is situated in its organismal and social ecological niche. However, I also take into account that each dimension has “imperialistic” demands. The body would appreciate total support from all the other dimensions, which is in fact impossible because each dimension defends a series of distinct requirements. The conflicting requirements between biology and mind were already a central theme in early psychoanalysis. For example, psychotherapists from Freud to Reich thought that when conscious processes cannot integrate sexual needs, they would necessarily disrupt a variety of other organismal subsystems: organs, hormones, breathing, muscle tone, memory and interpersonal regulation.

I use the adjective “organismal” to describe such an approach of a specific dimension of a person. For example, I could say that Piaget used an organismal approach of the development of intelligence; or that Otto Fenichel developed an organismal approach of psychoanalysis.

During the 1930s, Luria and Vygotsky’s research team developed a similar vision in the Soviet Union, when they developed their notion of “functional systems” (Luria, 1979, p. 122). This model takes into account not only the complexity of a structure but also the mobility of its component parts:

The original task of respiration – restoration of the disturbed homeostasis – and its final result – transportation of oxygen to the alveoli of the lung, followed by its absorption into the blood stream – obviously remains invariant. However, the way in which this task is performed may vary considerably. For instance, if the diaphragm, the principal group of muscles working during respiration, ceases to act, the intercostal muscles are brought into play, but if for some reason those muscles are impaired, the muscles of the larynx are mobilized and the animal or person begins to swallow air, which then reaches the alveoli of the lung by a completely different route. The presence of an invariant task, performed by variable mechanisms, which bring the process to a constant invariant conclusion, is one of the basic features of every “functional system.” (Luria, 1979, The Making of Mind, p. 122)

Luria than shows that automatic habitual movements can only be described by an even more complex functional system, which brings us back to a vision of body techniques that is close to that of Mauss:

“Since the locomotor apparatus, with its movable joints, has many degrees of freedom because different groups of articulation participate in the movement, and since every stage of the movement changes the initial tonus of the muscles, movement is in principle uncontrollable simply by efferent impulses. For a movement to take place, there must be constant correction of the initiated movement by afferent impulses, which give information about the position of the moving limb in space and the change of muscle tone. This complex structure is required to satisfy the fundamental conditions preserving the invariance of the task and its performance by variable means. (Luria, 1979, The Making of Mind, pp. 124-5)”

Luria could have added that a movement changes the relation between gravity and posture, and this structural regulation must also be constantly monitored.
These detailed descriptions predate cybernetics and the notion of regulation systems developed during the second half of the twentieth century. They also show the incredible complexity that is mobilized when one wants to combine breathing, movement and automatic skills. For the moment, research is so focused on neural dynamics that it has lost track of the roads opened in the 1930s to create an organismal vision of human behavior.

My present proposal is that if one wants to create a global psychotherapy theoretical umbrella, we could begin by finding what connects the many psychotherapeutic movements that use an organismal vision as a reference frame. To achieve this aim, we will need to support studies of how different functional systems are connected while various organismal states are coordinated to accomplish regular tasks. We have seen that before Charcot’s use of hypnosis, psycho-physiologists often had a bottom-up vision of the mind, assuming that it emerged from the higher (in terms of location and complexity) centers of the brain. The generation, forged by Charcot’s analysis, analyzed a top-down axis, where one could see that hypnosis and hysteria are examples of phenomena where the mind can activate lower centers of the nervous system situated in the spine. Twentieth century organismal psychology sees all sorts of interaction between systems that can be simultaneously top-down, bottom up and lateral, as in the following quote:

“The risk of forgetting the development of the psyche is a process that feeds on an ecological environment that contains the organism. (Bullinger, 1998, p. 29)”

The Soviet school of psychologists I am referring to assumes that various functional systems activated emerging dynamic systems that combine the forces mobilized during a behavioral scenario. Vygotsky’s famous example is that of water (CO2) (Vygotsky, 1934, chapter 7), in which one can distinguish the following properties:

1. The properties of the elements: Oxygen nourishes flames, hydrogen nourishes flames.
2. An emergent property of the global organization: Water contains an emerging property that does not exist in its constituents: that of extinguishing flames. In this example, oxygen and hydrogen keep their cellular structure, but some of their functions have changed.

Vygotsky used this metaphor when he wrote on how the combination of individual thoughts (oxygen) and socially constructed language (hydrogen) leads to emergent properties within the realm of individual thoughts and socially constructed forms of knowledge (water). Thoughts and language are thus of a different nature, but their association activates crucial emergent properties.

Another relevant discussion opened by Vygotsky and his team at the end of the 1920s, concerns the type of psychological approach that can integrate how the mind inserts itself simultaneously in various layers of organismal and social dynamics. For them contemporary psychology (reflexology, behaviorism, Gestalt psychology, the methods uses by Wundt and James, psychoanalysis, Jung, Janet’s automatic thinking, and so on) did not have a sophistication that could integrate what was being discovered in neurology (Luria, 1979, p. 55). This assessment is reinforced if we are looking for psychological theories that can be associated with what has been recently discovered in psychophysiology. This is the thesis defended in this book, which assumes that is that future developments

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72 I borrow this expression from Lidy Evertsen, the President of the European Association of Body Psychotherapy (EABP), who is trying to form an umbrella theory that can provide some basic definitions that could characterize all forms of body psychotherapy.
in psychotherapy will have to refine their models on how the mind interacts with the organism, and social dynamics, and how the organism interacts with its global environment. There is here a fine point I need to stress. The interaction between mind and society has particularities that does not include all the interactions between organismal and social dynamics. These direct interactions between society and the organism also influence the mind - organism connections. Luria summarized this area of exploration in the following way:

Man is not only a product of his environment; he is also an active agent in creating that environment. The chasm between natural scientific explanations of elementary processes and mentalist descriptions of complex processes could not be bridged until we could discover the way natural processes such as physical maturation and sensory mechanisms became intertwined with culturally determined processes to produce the psychological functions of adults. We needed, as it were, to step outside the organism to discover the sources of the specifically human forms of psychological activity. (Luria, 1979, *The Making of Mind*, p. 43)

This “stepping outside” is crucial as soon as one accepts that the more complex psychological and behavioral activities “must account for processes, such as those involved in writing, that depend in part on external, historically conditioned mediators. (Luria, 1979, p. 126)"

During the 1970s, Noam Chomsky orchestrated the end of general classical psychological theories such as structuralism, organismal theory, systemics and behaviorism, which reached its culmination at a debate, originally organized by Scott Atran, at the Royaumont Center for a Science of Man, near Paris (Piattelli-Palmarini, 1979). Recent developments in artificial intelligence, modular neurological models and linguistic required local models that could not fit elegantly in known general theories. For example,
the classical nature/nurture debates needed a complete reframing. The attack was remarkably efficient. It obviously said aloud what many were already thinking. The temptation to build global theories has disappeared from the landscape of academic psychology. A similar trend is developing in the field of psychotherapy, but at a slower pace. It is only since the last two decades that eclectic psychotherapeutic approaches are proliferating, but they remain unacceptable for health institutions that are still trying to understand which psychotherapy schools and modalities they should support.

**Organismic Psychology and Effects**

Most writers on the emotions and on human conduct seem to be treating rather of matters outside nature than of natural phenomena following nature’s general laws. They appear to conceive man to be situated in nature as a kingdom within a kingdom: for they believe that he disturbs rather than follows nature’s order, that he has absolute control over his actions, and that he is determined solely by himself. They attribute human infirmities and fickleness, not to the power of nature in general, but to some mysterious flaw in the nature of man, which accordingly they bemoan, de-ride, despise, or, as usually happens, abuse: he, who succeeds in hitting off the weakness of the human mind more eloquently or more acutely than his fellows, is looked upon as a seer. Still there has been no lack of very excellent men (to whose toil and industry I confess myself much indebted), who have written many noteworthy things concerning the right way of life, and have given much sage advice to mankind. But no one, so far as I know, has defined the nature and strength of the emotions, and the power of the mind against them for their restraint. (Spinoza, *Ethics*, III, Preface, Translated from the Latin by R. H. M. Elwes, downloaded from project Gutenberg)

Another debate opened by organismic researchers such as Cannon and Luria is the development of approaches that show that the study of affects should show in what way affects are an important characteristic set of organismic dynamics. This thesis had already been well defended by Spinoza, as shown in the above quote, it remained rarely quoted. When Cannon showed that an emotion such as rage required a refined mutual calibration between neo-cortical and limbic areas of the brain, he tried to show that affective dynamics were much more than chaotic physiological reactions inherited from older species. Luria (1932, p. 10ff) reinforced Canon’s proposal, by insisting that affects are a complex and delicate system that has multiple functions in the organism. Understanding this is crucial even for those who analyze phenomena such as neuroses and psychosis. I could add that a proper understanding of cognitive processes are also needed to understand how reason can be used to generate dangerous ideologies and destructive economic strategies.

When analyzing a form of dysfunctioning “we try especially to think of the conditions of the origin of this disorganization, of these systems which play decisive roles (...) not for a minute forgetting that we are studying the structure and function of human behavior. (Luria, 1932, p. 14)”. In the same paragraph Luria specifies that the same attitude is maintained when dealing with physiological processes.
One of the rare domains which has continuously explored this approach of affects are the psychotherapies influenced by Wilhelm Reich, such as Gestalt and body psychotherapy, for which affects coordinate in a continuous way cognition, behavior and physiology. For these psychotherapy schools a mutual constructive interaction between cognition and affects is key to mental health. It is something they would qualify as essential in the construction of such notions such as the psychodynamic Ego or Janet’s moral strength.

To summarize: distinguishing psychological states and psychological schemas

Recent research on psychotherapy has focused on nonspecific factors of change in psychotherapy (Bentzen and Hart, 2013, chapter 1; The Boston Change Process Study group, 2010; Stern, 1995, chapter 10). These factors can be observed during psychotherapeutic interactions independently from the specific technique or modality use by the psychotherapist. The focus is on methods and objectives that enhance the efficiency of psychotherapeutic modes of intervention.

In this perspective, states refer to global psychological dynamics, and schemas to specific actions. Both can be characterized as a mix between physiological arousal, affective activation, forms of memories and ways of thinking. Schemas are relatively well differentiated as several schemas, or several versions of a schema, can occur during a given state, or even in several states. Half way between a global psychological state and a specific schema, Stern (1995, p. 93) distinguishes networks of schemas, that group sensorimotor, perceptual, and conceptual schemas. These can form specific ways of being with another person (e.g., being hungry and waiting to be fed). The following quote shows the complexity of models that analyze how these layers of organismic and psychological phenomena influence each other:

“Stern (1998) points out that […] cognition research has found that representations, memories, and motor patterns do not exist in a fixed, final, and absolute form that is waiting to be triggered or activated; instead, they are composed or constructed anew every time they are brought into working memory, based on the requirements of the given context. Stern describes that whatever happens in the present moment will activate all the networks of schemas at all hierarchical levels that have any mental or physical connection to the current ongoing activity”. (Bentzen and Hart, 2013, p. 15)

The reader will notice that psychological states and schema are organismic dynamics that “recruit” and/or “are recruited by” psychological dynamics in a manifest way; but these psychological routines are not always central to what is activated. I will nevertheless use this vocabulary until more efficient terms appear in the literature. This frame is relatively close to the one I use today, with my patients.

The practical difficulty encountered is that the layers of psychological dynamics mobilized within an organism are so differentiated that they may push towards different goals, and defend different agendas. They spontaneously generate dissociated forms of regulation that require different forms of therapeutic interventions:
“The therapies that privilege the word and symbol often had trouble in pursuing and then integrating nonverbal memories. Similarly, the therapies that have arisen to address this lack (e.g., hands-on therapies) have been able to evoke isolated nonverbal experiences and memories but often have been less successful in integration this material into the intricate story line of a life history”. (Stern, 1998, p. 199-200)

The need to integrate such heterogenous dynamics into a narrative has been a key feature for some present-day psychotherapists, in most modalities. This explains the increasing use of expressions such as “integrative and eclectic” in the field of psychotherapy during the first decades of the 21st century. These synthetic approaches often stem from “a dissatisfaction with single-school approaches” (Norcross, Godfried, 2005, p. V).

Chapter 3. My professional biography: a psychologist who specializes in body-mind issues

I assume that most of you do not know who I am, so I will begin by presenting myself briefly. As you will see, this rapid professional biography is one way of approaching the recent history of how psychology and body psychotherapy has interacted.

Section 1. Academic Career: from Piaget to nonverbal communication

In experimental work a scholar usually begins by choosing a specific problem. Then he constructs a hypothesis and selects methods for testing his hypothesis. He arranges matters so that he can more easily focus his attention on those facts that will prove and disprove it. He is able to ignore all data that do not contribute to his analysis of the problem and to the proof of his hypothesis. By contrast, in clinical work, the starting point is not a clearly defined problem but an unknown bundle of problems and resources: the patient. The clinical investigator begins by making careful observations of the patient in an effort to discover the crucial facts. In the beginning he can ignore nothing. Even data that on first glance seem insignificant may turn out to be essential. (Luria, 1979, The Making of Mind, p. 132)23

23 In the 1930s psychologists such as Piaget, Vygotsky and Luria developed a form of clinical experimental procedure used to explore a poorly researched domain, so as to find what data are relevant (Luria, 1979, chapter 4). It this method I used in my research work.
The Sensory Motor of Psychological Schemas

I studied psychology during the 1970s, in Geneva, at the Jean-Jacques Rousseau Institute. Edouard Claparède had founded the institute in 1912, with the aim of combining the knowledge of psychologists and teachers to understand how children develop and how they can be helped in the most constructive way possible. It was then directed by Jean Piaget. He had had relatively close collegial and professional relations with Pierre Janet, who is sometimes considered as Piaget’s mentor (Pass, p. 65), and regularly discussed Pierre Janet’s ideas (Ducret, 1984, p. 487). For the Janet of the 1930s Piaget was already a promising child psychologist (Janet, 1934, p. 15). He discusses Piaget’s early studies on the language of children, and regrets that Piaget did not also analyze gestures:

I still have a slight regret that M. Piaget only talks of the language of children and not of their acts: do children who use so poorly the word “part” know how to take a part of cake?” (Janet, 19934, p. 25; my rough translation).74

I quote this because it shows both Janet’s interest in behavior and his influence on Piaget. Piaget manifestly followed Janet’s advice, as he spent the rest of his career analyzing how the adaptive coordination of acts and words into what he called schemas, was a key regulator of the development of intelligence. Piaget was, of course, influence by

74 Les travaux de M. Piaget sur l’aspect et le développement de la notion des parties se trouvent dans le Journal de psychologie de 1922 et dans American Journal of Psychology de 1920. Je regrette toujours un peu que M. Piaget ne nous parle que du langage des enfants et non de leurs actes : les enfants qui se servent si mal du mot « partie » savent-ils se servir d’une part de la tarte ?
others as well, when he chose to investigate the interaction between language, behavior and intelligence.

In the 1970s the Rousseau institute was a buzzing international center of psychology for all issues related to the cognitive development of children. In 1975, when Piaget retired, the institute was dissolved to become the actual Geneva Faculty of Psychology and Education Sciences (FPSE). My basic training was thus in cognitive developmental experimental psychology with a touch of epistemology. For my master dissertation (Heller, 1976), which was then called a diploma, I replicated some of Piaget’s studies on how children become aware of body movements, such as walking on all four limbs.

Piaget’s study was a way of exploring how complex psychological processes such as consciousness interact with more biological procedures such as sensory-motor coordination. The originality of this approach was not that of assuming an intimate association between complex psychological processes and sensory-motor know-how, but a need to study these connections by analyzing how they are constructed while a child develops and acquires the means to improve his adaptation to his environment. As I had already begun my training in body psychotherapy, I had chosen this subject to deepen my understanding of I could combine what I was learning in Tai Chi, meditation and neo-Reichian approaches with scientific psychology. I will say a bit more, later in this text, about the fact that my professors did not want me to mention psychotherapeutic movements close to Reich and far-eastern techniques in my academic work. This included not only Reich, but also Gerda Boyesen and the Perls of Gestalt therapy (they had studied with Reich in Berlin). So I began to look for “respectable” theories that approached the connection between complex psychological dynamics and sensory-motor processes that could support my private interests in these matters. That is how I discovered, hidden in a corner of the university library, a book written by the Soviet psychologist Luria. Luria, and his equally interesting colleague Vygotsky, were in the process of being central figures in psychology through recent translations. Their studies on the association of sensory motor functions, complex psychological functions, language and socialized skills had been published in the 1930s (like Reich’s Character Analysis), but had remained until then relatively ignored during the cold war, for political reasons. In the Soviet Union there was a strong repression of their psychological theories on the ground that they were too close to Freud’s capitalist vision, and Stalin had begun his anti-Semitic phase. Both were Jews. Vygotsky died in the 1930s, while Luria survived by becoming a medical neurologist. He, however, managed to develop his neurology into a new form of psych neurology when he was asked to take care of soldiers traumatized by neurological lesions during the Second World War. The translation of their publications began in the 1960s, with the support of Jerome Brunner, when the relations between USSR and the USA momentarily improved. For a while doors opened. Scientists and artists from both sides of the wall that separated Soviet Europe and the rest of the world began to interact on a regular basis. The Piagetian were gradually discovering what these authors had written on Piaget, who immediately answered with enthusiasm on their critics. His response appeared in the 1962 English translation of Vygotsky’s most famous book: Thought and Language. In the 1980s and increasing number of publications and congresses began to synthesize the theories of Vygotsky and Piaget. In 1975, Vygotsky and Luria was for me a total discovery, as they had never
been mentioned in our university courses. Yet, some of their studies provided an enlightening academic frame for my research, as can be seen in the following quote, which refers to the state of Soviet psychology at the beginning of the 1930s:

Man is not only a product of his environment, he is also an active agent in creating that environment. The chasm between natural scientific explanations of elementary processes and mentalist descriptions of complex processes could not be bridged until we could discover the way natural processes such as physical maturation and sensory mechanisms became intertwined with culturally determined processes to produce the psychological functions of adults. We needed, as it were, to step outside the organism to discover the sources of the specifically human forms of psychological activity. (Luria, 1979, The Making of Mind, p. 43)

At an empirical level, my main result concerned the influence of group dynamics on awareness. The research published by Piaget and his collaborators (1974), analyzed how one child interviewed by one experimentation perceived his body movement (situation A). In my small pilot study, I compared this situation with two others:

B. One child described how another child moved to an experimenter.
C. Two children moved and discussed together and described what they perceived to an experimenter.

The results showed that, for this small sample of children, the developmental results concerning their awareness of movement was different in each situation. Piaget’s results were only replicated in a situation where one child interacts with one psychologist. Piaget’s procedure noted down how children walked on all fours on a piece of paper, while the children walked and talked. I had already done enough bodywork to notice that a conscious appreciation of movement is highly inadequate. What we noted down was a summary of what happened. When children changed their way of coordinating their limbs rapidly, we were unable to note down what was happening. I therefore decided that if ever I did more research on movement I would use video, to code exactly what occurred. I thus learned that explicit conscious procedure could only perceive a small part of what happens. I soon discovered that conscious procedures could only detect in an explicit way less than one percent of what is displayed during an interaction (Heller, 2012, chapter 20).

From Behavior to Its Postural Organization

Janet’s chest of drawer metaphor assumes that as a specific type of automatic behavior is a) relatively autonomous, and b) part of a general organization. One can open a draw without opening other drawers, but that movement will have a general impact on the equilibrium of the piece of furniture. In Piaget’s studies researchers would focus on specific behaviors, without taking into account the general impact of a schema on its postural frame. This began to change when students of Piaget working in Geneva, like André Bullinger (1998) and Pierre Mounod (1986), introduced a more systemic vision inspired mainly by Wallon (1942). Here are a few examples, taken from my thesis (Heller, 75)

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75 Video was not yet as accessible as today (Beebe 2014, 8)
1991), which rapidly show through what sort of research this shift occurred. The basis of this shift came through a closer collaboration between the psychological faculty and the school for psychomotricity. This implied including biomechanical models (models on the mechanics of movement) in ongoing research on the sensorimotor dimensions of psychological schemas. An example of this trend could be found in a study on social behavior by Hauert, Poncet & Wittgenstein (1984). Hauert, a psychologist, was trained in Geneva, while Piaget was still alive and teaching. When he began to study the participation of bodily behavior in human adaptive systems, he looked in the direction of paramedical disciplines for indications of how to approach body behavior as a 'constructed' (Inhelder, 1985) entity. Hauert and collaborators present their research by stressing the following points:

---Referring to the studies on nonverbal behavior the authors distinguish 'macroscopic' aspects of behavior (distances, postures, etc.), from 'microscopic' aspects of behavior (facial expressions, vocal expressions, etc.). Their study focuses on the macroscopic level, mostly on posture - perceived as the organization of all the microscopic elements.

---Having mentioned the innumerable variables which influence bodily interaction, the authors propose to concentrate on one of those: variable degree of professional training. This variable is studied in a situation where one adult plays a ball game with a 6-year-old child. Both persons are standing.

The population studied is the following:

- 24-year-old girls chosen in a Geneva school.
- Group 1: 6 female students in their first year at the faculty of psychology.
- Group 2: 6 female students in their first year at the Psychomotricity School.
- Group 3: 6 female students in their third year (last year) at the Psychomotricity School.
- Group 4: 6 female professional psychomotricians who have at least three years of practice.

These interactions were filmed. The coding focuses on adults, as they are greeting the child. The study was based on the following assumptions: Choosing psychomotricians implies choosing people who are trained to be aware of how they, and others, move their body. The group of psychology students is taken as a group of students who are not particularly focused on bodily behavior, but who are in a field similar to psychomotricity.

The theoretical basic hypothesis is that nonverbal regulation consists mainly of automated skills, of which one can distinguish several phases:

--- a phase where the behavior is completely automated (first-year students in psychology),
--- a phase where one tries to be conscious of those automatisms (first-year students in psychomotricity),
--- a phase where one is mostly conscious of one's behavior and where automatism is no more as distinct from conscious processes (third-year students in psychomotricity),
--- and a phase where there has been a restructuring of the automatism through previously acquired knowledge, but where those automatisms have become again fairly independent from conscious processes (professional psychomotricians).

The authors refer to previous research by their laboratory (Hauert 1980, Gachoud 1983: 28 - 44) to distinguish movements which are controlled peripherally (discontinuous and jerky, etc.) from movements which function automatically (harmonious, smooth, etc.).

--- What follows is an extract from my 1991 thesis, p 37ff.
The authors expect that first year psychomotricity students will have less sensitivity to what they are doing, a weaker attention potential than third-year students:

The subjects who are finishing their training should present specific postural activities that are characteristically different from those of other groups. As postures are tonic and static at the same time, it is difficult to specify the particularities of these characteristics in a written hypothesis. However these differences are not only qualitative. They can also be associated to quantitative postural parameters.\(^{77}\)

Behaviors were coded using a system inspired by Time Series Notation (Hirshbrunner et al., 1983), considered as the most elaborated existing today. Hauert and his team added to the original coding system items described in biomechanics (referred to here as functional anatomy) which were specific to his research needs. Nevertheless, the code presented by these authors ends up by taking fewer bodily events into account than what is proposed by Frey and collaborators (1983: 150). The erect standard ‘physiological’ position is used as a reference position. The authors believe that biomechanical terminology should be used. A video camera filmed the front of adult subjects; the activity of hands and feet did not always appear on the film. Analysis of those two parts of the body was therefore not included in the exposition of the results.

The following results are mentioned:

— Postural mobility is perceived as low (2 to 3 Hz).
— Average time of greeting lasted 10 seconds and did not vary significantly from one group to another. There is, however, a bigger inter-individual variance in groups 3 and 4 (third-year students and professionals) than in groups 1 and 2 (first-year students).
— “In a general way, subjects shared their time equally between maintenance of postures and modifying them, which is to say between stillness and movement.([1])”
— There is a higher density of postural changes among subjects of groups 3 and 4 than among subjects of groups 1 and 2.
— Group 4 individuals move their arms more than individuals of other groups. In groups 3 and 1 although not as clearly, the trunk is used more often than in groups 2 and 4.
— Individuals of group 3 were those who used postures that differed most from the reference “physiological” posture. Individuals of group 2 and, most of all, 4 used postures closest to the reference position. Individuals of group 1 can be classified between groups 3 and 2. The authors see in this result a confirmation of their hypothesis: there is a better integration in group 4 than in group 2, and the most ‘conscious’ group (group 3) uses postures which are very different from those of all the other groups and which are farthest from the standard position.

The study by Hauert Poncet & Wittgenstein (1984) presented above is representative of a trend strongly influenced by such ‘cognitive’ theories as those of Piaget and Wallon, which tend to think that the notion of posture could be a manifestation of a postulated general organization of psychological functions.

Wallon considers that ‘inner’ sensations relate to ‘outer’ events through gestures that are organized by a general sensation of one’s body (“schema corporel” in French, “body

\(^{77}\) “Les sujets en fin du cursus d’études en psychomotricité doivent présenter des activités posturales dont certaines caractéristiques diffèrent de celles des autres groupes. Les postures étant des activités toniques et statiques, la nature de ces différences est difficile à spécifier dans une hypothèse. Plus qu’à des différences qualitatives, comme on en trouve lorsqu’on compare des activités physiques dont les niveaux de contrôle différent, on doit s’attendre à des différences quantitatives portant sur certains paramètres posturaux.” (6).
schema" in English) grounded in one’s postural dynamics (Wallon 1954; Ajuriaguerra 1962). Researchers such as Vurpillot and Bullinger (1981) have attempted to study how gaze, hand movements and posture organize themselves during the first year of life, in situations where babies are shown moving objects. Although Piaget himself did not really take bodily organization into consideration, the results are close to what could be expected from Piaget’s general epistemological stance. That is to say that bodily behavior is at the beginning highly undifferentiated: to follow an object with its gaze, the newborn must follow the moving object with his whole body. When a baby is three months old, it becomes able to follow a moving object with his gaze without mobilizing arms and trunk. When the baby acquires the faculty to choose between sitting and lying, it also experiences a capacity to modify his environment... by throwing objects around, for example.

Fivaz (1985) studied interactions in mother/infant dyads trying to analyze how the organization of inter-individual interaction relates to the organization of body behavior. Bodily behavior is approached as an organized whole that can be decomposed in three categories: position, posture and finer interactive gestures. For this study, Fivaz concentrates on the pelvic segment to analyze position, trunk-lean and orientation to analyze posture and gaze as a finer interactive gesture. The organization of mother/infant interactions is analyzed using a) family therapy models and b) a coding system inspired by Frey's method of describing how parts of the body coordinate themselves in a dyadic organization. Among the findings she reports, the following relate to this discussion:

—Pelvis is the part of the baby’s body which mothers manipulate the most.
—Types of gaze interaction could only be differentiated once they were related to postural and positional organization of behavior, with the idea that position frames postures and posture frames gaze. Pelvis, trunk and gaze may be oriented in the same direction or not. Also each segment may move in a coordinated way (synchronism), or in an apparently uncoordinated way.

In such studies, each skeletal part of the body is conceived as an element of a ‘whole’... called posture. Posture is the visible manifestation of the organization of segmental behavior. It is not merely an aspect of bodily behavior, but implies a mode of integration of all the elements of bodily behavior, so as to allow adequate adaptation to the situations that surround them (Hoegen M. 1984). “We consider the organism as a collection of specific biologically determined adaptations. The element of cohesion is provided by a postural function which, already before birth, includes basic reflexes that connect independent innate adaptive routines with each other (Bullinger A., 1980, my translation).”78

Another biomechanical concept analyzed by cognitive psychologists is the notion of grounding:

78 "Nous considérons l’organisme comme une collection d’adaptations biologiquement déterminée. L’élément de cohésion revient à la fonction posturale qui dès avant la naissance et sur des bases réflexes lie les adaptations les unes aux autres. (Bullinger A. 1980) "
they consequently swayed, staggered or fell. (...) As a first step in investigating this question, Butterworth and Hicks replicated Lee and Aronson’s results for standing and then compared the stability of the seated posture under conditions of discrepant visual feedback in two groups of infants. The younger group (mean age 10.5 months) could sit unsupported but they could not stand, while the older group (15.8 months) could sit or stand without support. In a pretest, it was established that infants could sit stably without swaying or falling for at least one minute. We found that the younger infants, who have not yet learned to stand, compensated at least as intensely for a visually specified loss of stability when sitting as the older infants. We also found that postural compensation occurs both to backward and forward motion and to lateral movements of the room across the infant visual field (...). Among normal infants, there is a decline in the effect of discrepant visual feedback for both sitting and standing postures with experience. Among the motor retarded group, there is also a decline in response intensity with experience standing. We can be sure that these results are a function of experience and not of neuromuscular maturation because various measures of maturity, such as the age at which infants become able to stand or sit unsupported, were uncorrelated with composite scores (Butterworth G. 1980).

These observations, as well as others, showed that as far as academic psychological knowledge is concerned, there is no available sensory-motor developmental psychological model that can be used with adults. As is if all that was mixed at birth has now become clearly differentiated. I have since then devoted my life to find tools that would allow me to detail mechanisms which that the whole of a person’s life is deeply rooted in those mechanisms that link body and mind, constructed from birth (and even before) onwards. Now that I am becoming an old man I realize in a particularly dramatic way how useful this stance can be.

**From Social Behavior to Unconscious Postural Dynamics and Repertoire**

For my doctoral thesis, I specialized in social psychology and the analysis of nonverbal behavior. I finished this thesis in Duisburg University, under the direction of Professor Siegfried Frey.

In this thesis (Heller, 1991), I used two coding systems of posture to analyze how social status expresses itself in daily life: the first one is the biomechanical system used by physiotherapists, and the second one is the coding procedures used for studies on nonverbal communication by researchers like Frey, Goffman and Kendon. The difference between these two coding systems is instructive for today's subject. The biomechanical model used by physiotherapists and psychometricians use Newtonian mechanics to analyze how posture organizes itself in the field of gravity. This is for example an important
point for body techniques such as Rolfing, that has always been close to Californian body psychotherapy. The codes used in nonverbal communication analyze each part of the body as if each of these parts could be a specific signal. The bodily organization of these behaviors is not studied. Thus a foot can say one thing, a facial mimic another, and the general posture something else still. Most of the time a behavioral item is not situated in its postural ecology.

This initiates another theme of this talk: the difference between two overlapping systems: body and behavior. To simplify a behavior is a specific sensory-motor pattern that aims at an impact on the environment of the organism. To acquire virtuosity these behaviors need to be anchored in a bodily postural structure. I synthesized these two methods by proposing a code of postural dynamics. This study illustrated at least two useful ideas:

The first observation is that body behavior is stratified. One can look at how a body is anchored, how it auto-regulates through self-touch and how it attempts to regulate others through items such as mimics and gestures. These layers structure each other continuously to regulate their relation with the field of gravity.

The second observation is that in banal situations social status does not necessarily express itself through simple signs that can be easily spotted by a rapid conscious scanning of behavior. Its influence on postural dynamics is often multiple, conveying a general atmosphere rather than sending specific iconic signals. For example, students used a less varied postural repertoire than their teachers. Teachers tended to be themselves, while students tended to appear more respectful. Being oneself, in this set of data, is expressed by the observation that there was greater individual postural variety among teachers than among students. It is only in highly ritualized situations that one notices ostentatious iconic behavior associated to status.
What impressed me most during this analysis was the immense multiplicity and variety of ordinary human behaviors. This can only be appreciated if you take the time to code nonverbal behavior: noting down image by image the position of each part of the body, after having analyzed each item at slow, fast and normal speeds. In those days I discovered the realm of coded behavior using Siegfried Frey’s particularly exhaustive coding procedure called Time Series Notation (Frey, et al., 1980). When I perceive the behavior of another person during my daily life, I have the impression that I see everything that happens, but when I code behavior in a systematic way, I discover that my consciousness has overlooked at least 90% of what really happened. A one-hour discussion between people manifestly deals with at least 1,000,000 nonverbal describable behavioral nuances. Each event can be perceived clearly and reliably by anyone who uses a coding procedure such as Siegfried Frey's Time Series Notation. It was already evident, when one read the literature on nonverbal communication at the time, that most of these behavioral items had an impact on how interacting partners coordinate each other, and that most of these regulating activities could not be perceived in a conscious way. I began to use the term nonconscious to designate the management of this type of information. I used this term as proposed by Paul Fraisse (1992), in an interview with Anne Fraisse, his stepdaughter, I had published when I was editor of Adire. Paul Fraisse advised psychologists to use this term, so that they did not have to worry on whether the unconscious dynamics they were studying was compatible or not with Freud’s definition. Using this term allowed me to analyze unconscious dynamics that had not even been imagined by Freud, but which are well known by the researchers in the field of nonverbal communication.

These psychological studies focused on trying to understand how people functions. People are analyzed as individual entities, without ever using notions as normality and health. I noticed, like many colleagues, that no two individuals are really alike, even if some forms of loose generalizations can be derived from the collected data. This attitude...
has been with me all my life, event with my psychotherapy patients. Although I am aware that some psychiatric notions can be useful tools to help people, I have never reduced a person to a diagnostic, cultural, sexual or racial relevant category.

One important notion I developed at the time, and which I have developed ever since, is that of repertoire. A postural repertoire is composed of all the postures one often uses. A postural repertoire is composed of at least four variables:

1. A list of postures that are used by a group or a person.
2. The percent of time during which a posture is used.
3. The probability that one posture follows another.
4. The way one passes from one posture to another.

Thus most Hindus squat more often than most Europeans. One can also talk of a repertoire of behaviors. It is difficult to describe a behavior that characterizes all the people during a funeral ritual within a culture. It is easier to talk of a repertoire of behaviors that is more likely than during a family gathering from Christmas.

I have fought all my life against dictionaries of dreams and movement. I do not believe that a given sign has only one meaning. However, a sign may coordinate a certain number of functions once it is situated in a repertoire that narrows its polysemy.

**Suicide and Unconscious Facial Nonverbal Impacts**

At the end of the 1980s, for more than ten years, I directed a research laboratory in the Geneva University Psychiatric Institutions. There, Professor André Haynal asked me to explore if one could predict suicide attempts by analyzing facial behavior using the Facial Action Coding System of Ekman and Friesen. This projected inserts itself in attempts to study what really happens during psychotherapeutic interactions in a scientific way. Our team79 published on two major themes:

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79 My main collaborators were Véronique Haynal-Reymond and Christine Lessko
We showed the films to the doctor who was analyzed on these films. We focused on these moments when she was apparently reacting to the patient's suicidal potential, and asked her if she could tell us what she had felt at that moment. As this discussion occurred a few years later, she could not remember; but we intrigued by her utter puzzlement at perceiving those aspects of her behavior we zoomed on. They had no apparent meaning in most cases. They were often purely automatic behaviors that became more or less frequent in function of the patient's suicidal risk (Archinard, et al., 2000; Heller & Haynal, 1997). This confirmed my intuition that we were discovering a form of nonconscious communication that had never been adequately described before, even if most of my contemporary colleagues had similar intuitions.

Regrettably, political changes in our institution and my health problems prevented us from replicating these results.

Table 2: Percentage of patients' speaking time during which the doctor clearly oriented her gaze away from the patient's body.

<table>
<thead>
<tr>
<th>Topic</th>
<th>R</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Suicide</td>
<td>4.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Care**</td>
<td>3.3%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

***Mann-Whitney = 172, p < .01 (two tailed), efficiency = 83%.
R: Doctor with Reattempter patients. A: Doctor with Attempter patients.
Section 2. Integrating my academic career in my clinical work

I can therefore claim to have an expertise in cognitive psychology, and the analysis of behavior. I have integrated this expertise in my way of practicing psychotherapy. I have not trained in cognitive and behavioral therapy (CBT). Therefore, I have not integrated the refined clinical knowledge that these approaches have developed. My theoretical stance in this domain is close to that of Piaget and recent psychological developments for cognition, and to a systemic analysis of nonverbal behavior. I feel less at ease with behaviorism or forms of cognitive psychology close to Ulric Gustav Neisser’s (1993) formulations. However, I notice that what I have developed as a clinician is often in sympathy with specific clinical distinctions developed in CBT literature (Tuckman, 2009). For example, recently, I have been impressed by the formulations of Schema Therapy (Young et al., 2003). The term schema became familiar during my studies in Geneva. I feel comfortable with it, but do not use it often in my publications because many colleagues do not master the notion. I refined my understanding of schemas during my studies on nonverbal communication, when I analyzed automatic individualized behavioral manifestations that could be associated to variables used for my studies (the development of children, social status, suicide risk, and so on). I developed a more refined model during long discussions with George Downing during the 1990s, on how to integrate what can be observed on a video in psychotherapy. The main theme, for me, was spotting automating ways of doing/perceiving something when a patient finds himself in a certain type of situation. For example a certain way of managing frustration with a woman one loves, or certain ways of trying to help a child in crisis. Today, any form of automatic response that has a specific place in a patient’s mode of adaptation is, for me, a schema. It may be purely cognitive, purely behavioral, or a blend of both as well as other associated phenomena. The essential is that it has a recognizable contour that can become explicit for the therapist as well as for the patient. We can then enquire on the history of this schema, on its stability and/or evolution, and on its relevance for the patient today. What is aimed at is a re-evaluation of the schema, and often improving how it is integrated. Even constructive schemas maybe integrated in a counterproductive way. If I remain close to cognitive psychology and behavior analysis to describe a schema, I refer to wider psychotherapeutic notions when I work on how a schema is integrated at the level of postural dynamics, emotional needs, interactive know how and social integration. For example, I will use a mix of what I will call exploratory and educative methods to understand how a schema has inserted itself in the regulation systems of an organism.

Section 3. Body psychotherapy

In the 1970s, it was fashionable to follow a psychoanalysis if you were a psychology student. That did not mean that you agreed with this approach, or that you needed it. It was part of an implicit curriculum. Since the Beatles joined the guru of transcendental meditation, it was not rare to find psychology students practicing an extreme oriental discipline. I began with transcendental meditation and Tai Chi. Two events led me to my first body psychotherapy groups:
The first one was that my psychoanalyst thought that I was not motivated by a personal issue, and that therefore psychoanalytical sessions could not help me. He recommended that I continue my self-exploration in a Bioenergetic group in Geneva that, in his mind, would fit with my passion for body mind issues. In these days, I also had theatrical activities.

Piaget’s thoughts on affects were, for me, simplistic. As there was no good course on emotions in the Geneva of the 1970s, I was thus tempted to learn from these new therapies that focused on emotional expression. Since the 1990s students in the Faculty of Geneva have become well trained in emotion theory.

Having found our experiences in body psychotherapy interesting, some members of our group went to London to find someone who could come to Geneva to train us in psychotherapeutic methods inspired by Wilhelm Reich, who was the fashionable reference for body psychotherapy in these days. They came back with a training proposition by the Norwegian Gerda Boyesen and her team. She had been trained by some of the best body psychotherapists of Norway. In a recent article, I describe that just after the Second World War there was a golden age of body psychotherapy in Oslo (Heller, 2007). This golden age lasted until 1960. It was in this incredibly creative atmosphere that Gerda Boyesen was trained in clinical psychology, physiotherapy, and Reichian methods. I was trained by Gerda Boyesen and her team, from 1974 to 1979. It was very intense. I loved all I was discovering within myself. I also loved the type of human relations that this approach supported.

Having finished this training, in parallel to my university career, I began to see patients, participate in training activity, and joined those were trying to structure a field that had only one reliable journal, few ethical regulations, and weak theoretical stances. We thus created an umbrella organization called the European Association of Body Psychotherapy (EABP), which was soon joined by the USA Association of Body Psychotherapy (USABP). In this context, we could join forces to modernize a discipline that was becoming stuck in post-Reichian politics. You can find a global description of that adventure in my book (Heller, 2012), but also several other volumes.

In this neo-reichian world, I found myself stuck in another form of dogmatism that had at least the following components:

1. The idea that anybody who did not love Reich and his Orgone theory suffered from emotional pest and fascist beliefs.

Much later, I discovered that Paul Fraisse (1963), a close collaborator of Piaget who taught at the Sorbonne, had very interesting ideas on how physiological, psychological and relational dynamics are coordinated by emotions. His closeness with Piaget did not prevent Fraisse of having different views on several issues. Their collaboration was more of respect than agreement.
2. The use of simplistic emotional theories that assumed that if you did not violently hit on a mattress when angry, or did not crumble on the ground full of tears when you are sad, you are inauthentic and pathologically defensive. Similarly, if you did not love to make love and did not have complete reichian orgasms when you made love, you must necessarily be sick.

3. The visceral anti-intellectualism that interpreted my need for academic referencing and an ethical way of using knowledge as a neurotic defense. That I did have strong defenses that used my intelligence to resist psychotherapy was manifest, but that does not mean that my intellectual curiosity was necessarily a neurotic defense against the manifest limitations of some of my teachers and colleagues. This strategy was similar to other strategies used by psychoanalysts to transform non-pathological traits in something that can convince you that you still need more therapy.

4. All those points led to a form of brain washing of patients and pupils in the name of a form of humanism that is still for me unethical. Trainers sometimes imposed their love for what they called your deep authentic self, and asked for loving admiration in return. This attitude was nevertheless constructive for patients who suffered from what Kohut (Kohut, 1971; p. 114; Marlock, G. & Weiss, H., 2001) called narcissistic wounds, as it spontaneously led to constructive use of what he called mirroring transference.

5. Because the main teachers of these schools did not know how to resist against the attacks of academia and anti reichian laws, they had a tendency to deny the deep propensions of trainees who believed that in the future these issues could be dealt with more intelligently than by denial. I think that my generation of trainees have shown the validity of this point of view. The one enlightening exception in the field was David Boadella’s frontal and creative strategies to deal with these attacks.

Section 4. Personal experience of the difficult relations between academic psychology and body psychotherapy
From the days of Reich’s publications on Orgone energy to the Handbook of Marlock and Weiss on body psychotherapy, times have changed. In the 1970s, appreciating Wilhelm Reich and body psychotherapy in the Jean Jacques Rousseau Institute was taboo. I was explicitly told that such interests could ruin my career. In 1976, when I began my thesis in Geneva, I was again told that the faculty would only accept my project if I accepted not to mention Reich’s ideas. I also wrote a chapter that described hatha-yoga as the most complete exploration of posture, that was still practiced by many physiotherapists and orthopedic surgeons. The director of my thesis was afraid the Geneva Faculty of medicine would be offended by the content of this chapter. He asked me to take it out. I finally presented the thesis with the chapter on Yoga at Duisburg University, with the support of Professor Siegfried Frey, who recommended a summa cum laude for my work. I lost 10 years for this negotiation.

During the past 30 years the gap between body psychotherapy and academia is becoming shallower. In 1996, I represented the Geneva Psychiatric Institutions in an international congress they had organized on the body in psychotherapy. The congress focused on a relaxation technique used by psychoanalysts called the AjuriaguerraTechnic. I was asked to present our research on the nonverbal behavior of suicidal patients, which was presented as a scientific study that supports the need to include some bodywork in psychotherapy. However, once again, no one mentioned the well-known fact that I was teaching body psychotherapy in several European countries. I was authorized to present myself as a researcher working on the body in psychotherapy, but not as an active body psychotherapist with neo-reichian sympathies. A few body neo-reichian psychotherapists such as Jerome Liss made a presentation of their way of working, but they were tucked in a small corner of the building.

Since 2000, I have regularly (once a year) presented how body psychotherapy can be used to treat stressed persons in academic institutions such as the Geneva Faculty of Psychology and Education. This course was part of the curriculum organized by Professor Susanne Kaiser. I have also presented the finding and methods of body psychotherapists in other academic reunions. It is today manifest that body psychotherapy has refined its techniques and concepts. Forty years ago, my psychology faculty also did not appreciate my exploration of far-eastern techniques, such as yoga, meditation and tai chi. Today empirical research has transformed mindfulness in a fashionable and creative area of research. During these 40 years, numerous colleagues in psychology, psychotherapy and psychiatry have managed to impose the need of a profound reshuffling of our vision of how mind and body are intertwined. This reshuffling is at the heart of the development of
I trained and then practiced in body psychotherapy because I felt that it was an attempt to forge psychotherapeutic techniques that represented some of the best ideas of what I call organismal psychology. I have already shown that this movement grew since Lamarck's first publications on evolution, but it is in the 1930s that it began to be strongly supported by research and theory. Here are a few examples: In the 1930s, in physiology with Walter Bradford Cannon's notion of homeostatic regulation, in neurology with Kurt Goldstein's famous book on the organism, in developmental cognitive psychology with the work of Jean Piaget and Henri Wallon, in Anthropology with the article on body techniques by Marcel Mauss, and in Psychotherapy with Wilhelm Reich's Vegetotherapy. It is in the 1950s that this movement was explicitly referred to as organismal psychology by Heinz Werner and Karl Ludwig Von Bertalanffy. In medicine, Henri Laborit developed a sociobiology of the organism supported by his discovery of neuroleptics, and Hans Selye developed his psychophysiological model of stress as an organismal adaptation syndrome.

This movement grew in academic psychology with the coming of studies on nonverbal behavior inspired by Gregory Bateson. It was also developed in cognitive psychology by figures such as Jerome Brunner and Francisco Varela, who introduced terms such as embodiment and enactive thinking, that were rapidly introduced in the formulations of
cognitive therapy, mindfulness-based therapy and artificial intelligence. Even some psychoanalysts are now using these notions, like Daniel Stern in the USA and Geneva, and François Roussillon in France. Varela is probably one of the sources of the present popularity of Mindfulness. In parallel, he influenced numerous body psychotherapists. A bit later, Malcolm Brown created a school of body psychotherapy called organismal psychotherapy. Brown explicitly refers to Kurt Goldstein. Today organismal psychology is mostly developed with a systemic viewpoint. I will soon explain in more details what this long list of names covers.

Body psychotherapy has explored important implications of this organismal stance, and found ways of introducing methods derived from this analysis in the realm of psychotherapy since the 1930s. The few names I have mentioned are but different tips of a huge iceberg called organismal psychology. Body psychotherapy is one manifestation of this global trend.

In my book on the history of body psychotherapy, I have tried to show how body psychotherapy participates in the development of psychology. The book was kindly prefaced by Philippe Rochat, with whom I had studied experimental developmental psychology in Geneva, and who now teaches child psychology at Emory University, in Atlanta (USA). This text will try to convey how densely knit body psychotherapy and psychology have become.

Section 5. Experimental psychology & Psychotherapy: a waste of time

There is not a plurality of physics, nor several chemistries. Similarly, there should only be one psychology. (Edouard Claparède, 1936)\textsuperscript{81}

Experimental psychology, psychology in general, has purely and simply ignored psychoanalysis as it is practiced by psychoanalysts. (Paul Fraisse, 1992, \textit{Le Non Scientif}, p. 175, my translation).

In the 1970s, at the Jean Jacques Rousseau Institute, I spoke openly of my interest for Wilhelm Reich, Henri Laborit and Orgone energy with fellow students and in seminars. Some of my professors warned me, in a friendly way, that if I went on talking of my private interests as if they had an academic interest, I might ruin my career and reputation in the realm of scientific psychology. Thirty years later one of them explicitly confirmed that his prediction had been correct. When I presented my thesis project on posture and social status in 1977 (Heller, 1997) at the Geneva Faculty of psychology, I was explicitly asked not mention people like Reich if I wanted it accepted… because my ideas on the subject are “too biased” (e.g., passionately involved).

I observed a form of polite resistance with some researchers I had collegial relationships with, fifteen years later, when I tried to give them a copy of body psychotherapy journals like Energy \& Character or Adire. They would kindly turn a few pages, see the spelling mistakes and incomplete referencing, and then give the journal back with a friendly smile, saying something like “it looks very interesting!” Their kind smile seemed to add, “I do not see why I should waste time on such poorly presented stuff.”

\textsuperscript{81}As quoted by Mourral and Millet, 1996.
Today, the relations between academia and body psychotherapy are less strained. As already mentioned, I was able to direct a research laboratory for ten years and have presented the ideas of body psychotherapy to university students and researchers several times. On their side, body psychotherapists have made huge efforts to present their knowledge in a more rigorous way. But there is still a long way to go before a real dialogue can be opened between psychotherapy, psychology and psychotherapy.

Given this context, you can see how damaging Janet’s discourse on Freud was for the creation of dialogue between psychoanalysts and academic psychology. The problem was not so much Freud himself, as, like any other human being, he necessarily has some defects. However, when hundreds of psychoanalysts thought they could make a career by assimilating Freud’s easy generalizations and simplifications and by refusing to listen to criticism, psychologists refused to lose time on such eccentric ways of thinking and communicating. The public success of psychoanalysis outside of academic circles, supported by motivated sponsors, increased the tensions between these two disciplines. This tension was often tangible when a professor of experimental psychology and a professor of psychiatry with a psychoanalytic orientation discussed the organization of research projects within the same University. This contempt for psychoanalysis spread to all other forms of psychotherapy that gradually flourished beyond the walls of academia. Psychotherapy has since then created excellent relations with most human sciences and psychiatry... but not with psychology. Reciprocally, for many psychiatrists\textsuperscript{82} and psychotherapists, experimental psychology has nothing to offer when one needs to help patients. It is therefore a waste of time to read what psychologists publish. I am astounded how many of my psychotherapist and psychiatrists friends have not even read one book of experimental psychology, and are proud of it. What they are saying with their attitude is that the scientific exploration of the mind by psychologists only leads to boring results, of no real importance. What is true is that there are not many good writers among psychologists. I cannot recommend one good book written by a psychologist (Piaget’s courses were a real pleasure, but his books are unreadable). Colleagues tell me that in this respect I am a typical psychologist (e.g., Rolef Ben-Shahar, p. 2013). While Freud was an excellent writer. The acquisition of the methodological knowledge required to read what is being researched in psychology is usually not required in the training of psychiatrists and psychotherapists, while basic knowledge in physics, chemistry and biology is often acquired in school. Reading scientific work without a minimum of knowledge of its basic notions is, of course, impossible. Similarly psychologists and psychotherapists seldom know the diagnostic vocabulary used in psychiatric literature (as in the first part of Gauchet and Swain, 1997). Thus the barriers between these fields is really deep.

\textsuperscript{82} I have made an informal enquiry with my psychiatric friends of Lausanne and Geneva. Among those that have a training in hypnosis, psychoanalysis and/or systemics (which is still the majority), I have only met five who have read at least one book of experimental psychology, and none who have read more than 20 pages of Piaget, who is probably the most famous experimental psychologist in that part of the world. The issue defended by these psychiatrists, who see patients every day, is the one Janet scorned the most: the need to cure as many people as possible as well as possible with whatever useful tools are available. For many psychiatrists and psychiatrists experimental psychology has nothing to offer when one needs to help patients.
**Section 6. A personal tradition on how to coordinate different views**

I come from a highly critical family. Even the Bible or the Tao Te Ching is not beyond criticism. As to Science, it is by definition fascinating bits and pieces of temporary formulations that are forming a powerful never-ending process. My father and his father, Clemens and Hugo Heller, had several jobs; one of them being that of publisher. What interested them was not whether an author was right or not, but whether they would create interesting and fruitful debates. As a psychotherapist, I often meet people with enormous qualities that are nevertheless in deep problems. I am incapable of putting aside someone who defends questionable issues without checking if that person does not also have interesting things to say. Given my education and personal convictions, no one can be entirely right or wrong. The defects of a proposition does not erase its qualities. The fact that there are obvious flaws in what is presented does not mean that digging into a school of thought will necessarily be a waste of time (Bourdieu, 1988). Without such an attitude, it would be impossible to open a discussion on how to coordinate the proposals of psychotherapy schools, as they often blend highly stimulating models with questionable highly personified notions. Schools may for example use arguable arguments as truths, and nevertheless remain highly interesting. An example of what I call an arguable argument is the assumption that body psychotherapy is particularly useful when it induces regressions that lead to an infant’s “bodily” memory. There is nothing wrong about this restrictive view on body-mind work, but it remains highly arguable. Body-mind work does not only lead to preverbal, narcissist, core regressive issues but also to complex, creative forms of experience required for a constructive sexuality and arts such as dance, singing, martial arts and theater (Feldenkrais, 1949, chapter 17; Laban, 1920; Reich, 1940).

So, yes, I have a part of me that rushes through the moments when a psychoanalyst colleague explains to me that all women suffer from a castration complex because they cannot bear not to have a penis, that all humans have an Oedipus complex, that all the trees in a dream are a penis, or that all the doors are vaginas. However, somewhere in the conversation, my psychoanalytical colleagues may say something about a patient we both know that is precious. Similarly, the Viennese philosopher Wittgenstein is one of the philosophers who was irritated by how psychoanalysts argued, and by some of their psychological models. Nevertheless, he also admired the Freud who wrote the analysis of dreams because “he was someone who had something to say” (Wittgenstein, 2007, p. 41), which - for Wittgenstein - is a supreme compliment. Although Wittgenstein disagreed with most of Freud’s theory, he nevertheless thought that he was one of the few authors alive worth reading (Bouveresse, 1995, chapter I). A similar discussion can be had on nearly any intellectual movement.

In the following sections, I will highlight some of Freud’s crucial proposals that are particularly relevant to the subject of this article.

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83 A brief homage to their career can be found on [http://www.archivesaudiovisuelles.fr/115/textes/t_Pleskoff.htm](http://www.archivesaudiovisuelles.fr/115/textes/t_Pleskoff.htm). For Hugo Heller, see also Fuchs 2010.
Chapter 4. Psychoanalysis: Some aspects of Sigmund Freud’s proposal that played a crucial role in the history of psychotherapy and international culture

A riddle is lurking in the region of affects. (Sigmund Freud in a letter to Wilhelm Fliess, November 7, 1899, in Freud 1904)

Section 1. Discovering an expressive verbal method that could lead to an in-depth exploration of the psyche

Those muscles which are least obedient to the will, will sometimes alone betray a slight and passing emotion (Darwin, 1872, The expression of the emotions in man and animals: p. 79.)

Freud, hypnosis and Charcot’s hysterical patients

Freud began his clinical career by working in the private practice of Josef Breuer, who was using a “taking cure” and hypnosis to treat female hysterical patients. It is to enrich this collaboration that, in 1885 and 1886, he managed to spend a semester in Charcot’s Salpêtrière, and a few weeks with Bernheim in Nancy. Together, Breuer and Freud developed a Cathartic Method and published the famous “Studies on Hysteria” in 1895. The method followed the fashionable trend defended by Janet’s Psychological Analysis, which takes into account all the dimensions of the organism that are connected to a psychological issue. Freud combined hypnosis and related relaxation methods, sent patients to physiotherapists when required, touched the forehead to enhance a hypnotic

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84 As quoted by Westland, in print, p. 197.
trance (the pressure technique), and integrated Breuer’s talking cure. He would carefully record all aspects of the patient’s behavior, and explore in detail the patient’s history, her thoughts and impressions. He became familiar with the cathartic episodes that this way of working inevitably activated from time to time.

However, Freud was not entirely satisfied. His work generated helpful information and clear improvements, but not necessarily cures. Clearly, a practitioner could not coordinate in a private practice all the information that was already difficult to manage for a psychiatric team backed up by institutional resources. Furthermore, even after the publication of the book on hysteria, Freud did not have enough patients to live on. He let Breuer lend him money, while he tried to reduce all the methods he was handling to a few essential techniques that could be managed in a private practice. For Freud Janet had created an institutional form of psychotherapy. He needed to find another form which could be used in a private practice. This implied aiming at the essence of psychotherapy: using psychological tools to heal the psyche (Freud, 1890). The idea is a bit that of an engineer who tries to repair bugs within software. This process took him five years at least and led to the 1900 famous book on the Analysis of Dreams that became an immediate best-seller.

François Fleury suggested that Freud’s psychoanalysis emerged from a combination of an in-depth anamnesis (case history), Breuer’s talk method and tools derived from hypnosis.

Given that hypnosis did not keep all its therapeutic promises, Freud focused his attention on Breuer’s homemade technique: the Talking Cure. He explored various ways of using it, and gradually focused on the automatic verbal free association method used by some hypnotists. His way of using the technique introduced a central method of future psychotherapy: co-exploring forms of behavior that express different layers of what is experienced. The patient can feel what he is expressing from the inside, while the therapist can experience the impact of these expressions from his inside, and coordinate these impressions with observable behavioral manifestations. By coordinating their experiences of the same behavior, they can produce an emerging analysis that could not have become apparent if this information had not been combined.

During the 1890s, Freud gradually gave increasing importance to the technique of free association that was often used by hypnotists. Free association is sensitive to the more or less conscious inner atmospheres that generate various forms of impressions. Both patients and therapists would enter in their realm of free associations while they...
repeatedly sat in the same room, in the same atmospheric frame. They could thus also share on how each other’s associative systems influenced each other. Having at last found a way of using his creative powers, Freud managed to reduce the Talking Cure to an incredibly rich sauce that allowed him and his patients to taste together “such stuff as dreams are made on.”

This method is close to others that were used since centuries, such as meditation and hypnosis, for an exploration of one’s depth. I discovered this when I gave a training course to well-trained Japanese colleagues who worked with methods such as acupuncture, yoga, massage and martial arts. I was to teach them methods we use in body psychotherapy. This was for me a highly intimidating experience, as in my mind I had little to teach to Japanese professional in body-mind techniques. I spent a day showing how one can combine verbal and body free association. To my great astonishment, I discovered that for the exploring free associations was like exploring a new continent. Sharing free associations with others was close to an impossibility, and many told me that experiencing verbal free association was for them a deep and fascinating discovery. By free association I explicitly meant avoiding narrative forms memories or structured personal theories of what they experienced. Like Freud’s patients, these colleagues “the abandonment of the critical function that is normally in operation against them seem to be hard of achievement for some.” What Janet and I disagree with, is Freud’s use of the expression “is normally in operation against them”… as if not being able to associate freely was a psychiatric symptom. Being able to use the free association technique is for most a skill that requires training. I had the impression that expression (we were in a training group) of mental associations was a good revelator of some particularities of Japanese culture… a bit like when Freud used his observations to highlight some European mental habits. There are people that can associate with ease, but they are not necessarily “healthier” than others are. That became evident for me during this training group, because most of these colleagues were brilliant lively persons, not neurotics. I have also observed similar tricks in body psychotherapy. For example a well-trained psychotherapist will show to patients and trainees how easily he can shout, and cry or activate the orgasm reflex, and will then continue by showing that as you cannot do this you are necessarily “armored” and therefore need body psychotherapy. The capacity to display oneself like this is for me closer to a symptom of extreme extraversion than a sign of health. For the same reason the capacity of having frequent orgasms is not necessarily a sign of mental health (Heller, 1996). Finding relevant symptoms of psychopathological dynamics requires more refined grids.

The Japanese example I just mentioned nevertheless shows that becoming capable of associating freely is a powerful way to explore layers of the mind that explicit consciousness can only grasp with difficulty. Furthermore, once these associations can be explored with someone else these fuzzy dynamics of the mind can suddenly become explicit. The material provided by this method is so rich that it took decades for an increasing number

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88 To be fair, this preoccupation was closer to some of Freud’s pupils who, like Sandor Ferenczi, liked to explore transferential dynamics (transfer and counter transfer) (Haynal, 1999).
90 This five-day training workshop was organized in Nagoya (Japan), July 2008, by the Bio Integral Psychotherapy School (BIPS).
91 Freud, 1900, p. 176-177.
of psychoanalysts to discover some of its most obvious implications. Afterwards, similar forms of free associations were explored, using other modalities such as gestures and drawing (Westland, in print, chapter 7; Aalberse, 2001; Gendlin, 1998, chapters 6 and 12). As psychoanalysts had enough work exploiting verbal free association, associating with nonverbal modalities was explored in other psychotherapeutic schools after the Second World War, such as Gestalt and body psychotherapies, which were at first quite close (Kogan, 1980). What these more recent plurimodal forms of psychotherapy added was the notion that following what emerges in your mind and behavior can be explored as an experiment that may allow you to perceive new facets of what happens. This led to the proposal of exercises as an initial stimulus that can be transformed and explored to find new types of possible experiences and perceptions. Such exercises are used in all sorts of body-mind psychotherapies such as Bioenergetic Analysis, Gestalt, Hakomi, Biodynamic Psychology, Biosynthesis, Focusing, and many others.

**Section 2. Proposing the psyche as a well-differentiated focus of psychotherapeutic methods**

There are also psychic truths that can neither be explained nor proved, nor contested in any physical way. If, for instance, a general belief existed that the river Rhine had at one time flowed backwards from its mouth to its source, then this belief would in itself be fact even though such an assertion, physically understood, would be deemed utterly incredible. (Jung, 1958, *Answer to Job*, p. 553)

I have already referred to the metaphor of a software programmer who does not take into account how the language he uses interacts with the electric circuits of a computer but who knows that such an interaction exists. It applies well to Freud’s psychoanalysis, as Freud was initially trained in neurology (Kandel, 2012, chapter 5). Using introspection to explore the mind was also a current method in the psychological laboratories of Wilhelm Wundt’s (1907, chapter 3) and William James. Freud had studied with Wundt’s colleagues and pupils in the university, and met William James once during his trip to the United States, in 1909.

It is probably Freud and Jung who managed to impose on general readers that psychological dynamics have their particular laws and modes of functioning (e.g., not the same as physiology). Their proposal contrasted with classical psychiatric treatments based on physical interventions. They managed to convince an increasing number of psychiatrists that the pathological psychological dynamics could only be cured through psychological means. Interventions on other dimensions of the organism were not excluded, but they were only useful as contingent support. The movement that was set by Wundt and James on the one hand, and Freud and Jung on the other, remained within the frame of organismal psychology. In 1931, at the end of his life, Freud summarized his position in the following way:

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92 I thank Gilat Burckhardt for advising me to read this book, during our discussions on the shadow in Jung’s versatile vision, next to the lake of Zurich.
“We know two kind of things about what we call our psyche (or mental life): firstly, it’s bodily organ and scene of action, the brain (or nervous system) and, on the other hand, our acts of consciousness, which are immediate data and cannot be further explained by any sort of description. Everything that lies between is unknown to us, and the data do not include any direct relation between these two terminal points of our knowledge” (Freud, 1938, *An outline of Psycho-Analysis*, I.i, p. 144).

It is this unknown territory that Wundt with experimental psychology, Freud with psychotherapeutic methods, and Janet with a blending of both approaches, were exploring with their colleagues in the 1900s. Closer to Wundt than to Janet, Freud clearly defended the notion of a psychological unconscious that was not just produced by a splitting of conscious dynamics. In my understanding, Freud’s unconscious is that part of the psychological system that interacts directly with physiological dynamics, and transforms neural information into a format that can be dealt with (digested, integrated, and so on) by psychological dynamics such as those that generate more or less conscious impressions. Janet had shown that consciousness could function in a dissociated way, Freud now showed that most psychological dynamics operated beyond consciousness, and that this larger psychological system could also function in a dissociated way. Personally, I find that by distinguishing clearly between Freud’s unconscious, Janet’s subconscious and the cerebral unconscious, I can create a clearer picture of what I observe during my psychotherapy sessions.

**Section 3. Defense systems**

If there is one aspect of Freud’s system that was original, it is his notion of defense systems. It is not used in academic psychology, not even in Janet’s theory. This spontaneous defensive mechanism became manifest when Freud tried to use free association as a psychotherapeutic tool because he could immediately sense when associations seemed to deviate like water that tries to get round a roc (Haynal, 1992).

Today, numerous clinicians, in a wide variety of psychotherapy schools, have reformulated Freud’s original concept. An example is the formulations of Schema Therapy (Young et al., 2003). Biological routines automatically resist when external routines try to modify them, by recruiting the support of neighboring procedures to resist imposed changes. From this point of view, defenses are not necessarily a symptom of psychopathology. They are a necessary tool that allows spontaneous constraints to the potential flow of an infinite number of associations. Some material must be selected. This process is already active in the dynamic that calibrates nervous connections in a child’s organism. The connections recurring events in function of their frequency, not of their relevance. The psychophysiological schemas initially defined by Piaget is an example of such routines. The therapist can be irritated when a patient resists treatment (this is particularly tangible in the treatment of an addiction), but he may suddenly use positive terms such as resilience when the same mechanisms help a person to defend his or her inner coherence when confronted by a particularly difficult situation. This general definition covers a wide range of operationalizations that can form themselves within or around an organism.
Defensive behavior is a notion that is used by a wide variety of psychotherapy schools; but it has not found its place in academic psychology. One reason may have been that for many psychotherapists, defense systems are poorly differentiated from Janet’s automatic responses and ritualized social behavior. Here is a concrete example:

**Defense systems in nonverbal communication.** During the 1990s I coded facial expressions in the Laboratory of Affect and Communication, in the Geneva Psychiatric University Institutions. The coding system we used was the Facial Action Coding System (FACS) developed by Ekman and Friesen (1978). This code allows us to code in a reliable way every facial movement we can observe on video recordings of facial behavior. As a body psychotherapist, I also think that chronic muscular tensions can be the visible part of a defense system as defined by Wilhelm Reich (1949). These chronic tensions can be perceived as permanent masks of fear, anger and/or joy that have been put in place to hide other less acceptable emotions for that person. Ekman, in our personal discussions, clearly refused this adaptation of his system, because these masks could have a purely genetic origin, which has nothing to do with a defense system. Although he had a good knowledge of psychotherapy, he saw no way we can reliably differentiate innate facial configurations from the chronic muscular defense expressive mechanisms. I have often noticed that body psychotherapists can automatically attribute a masking of emotions when an innate facial pattern resembles a typical emotional expression, as defined by Ekman and Lowen. Before I met Ekman, I often fell in this trap. A psychotherapist would need to enquire if the impression that there is a mask corresponds to a chronic muscular tension. A proof that his impression is fruitful would be that he obtains a change of muscular tension after having worked on the affect he associated with an apparently permanent facial configuration.

**Section 4. Required simplifications and constraints to create a manageable method**

As described above, the psychoanalytic technique yielded much more information than what could be dealt with during a private dyadic psychotherapeutic session. Furthermore, early psychoanalysis is closer to a form of clinical research procedures than to a corrective therapeutic proposal. Further reduction of the material produced by patients and the experiences of the therapist was therefore still necessary. This led Freud to propose the following technical procedures:
1. A standardized postural frame. The patient is asked to lie on a coach and to avoid looking at the therapist as much as possible. The therapist sits behind the patient and refrains from interacting with patients as much as possible, even when he proposes an interpretation. Lying on a coach without interacting with others is as close as you can get to induce a quasi-hypnotic relaxation that can support the need to associate verbally as freely as possible while focusing on what is being experienced within the space occupied by the patient’s organism. Being protected from the patient’s gaze also helps the therapist to remain in a state of floating attention, and reduces nonverbal solicitations to its essential component: the changes of atmosphere in a well-known room. It also frees the therapist from having to worry about all the bizarre automatic self-regulatory gestures that may spontaneously occur when he focuses on his inner sensations. The therapist also does not have to worry about the worry about the worry about the worry about all the bizarre automatic self-regulatory gestures that may spontaneously occur when he focuses on his inner sensations. (Descartes, 1628, rule II). Freud’s inclination to begin with the pleasure principle is reasonable for a therapeutic approach. Zeroing in on sexual issues was more courageous, but is also understandable, as sexual issues are pointed out as a core problematic issue for individuals by religious morality and the theory of evolution; they are the target of intense intimate preoccupations of most human beings. Furthermore, the domain could easily be reduced to simple metaphors that are understood by all, that can nevertheless lead to complex associations. These two frames were used as a way of strengthening a person’s psychological resilience, by becoming able to relax, to face not only truths but also options on the sort of desire one could have. This educative stance is finally not so far from Janet’s position that strengthening one’s inner moral stance is a key feature of psychotherapy.

Section 5. A new nonacademic liberal profession: psychoanalysis and psychotherapy

Finally, Freud threw a bomb in the market of liberal professions, as becoming a psychoanalyst required a form of training that could only be acquired outside of university, by practicing the method on oneself and others on a regular basis. The implications of this choice are still with us, psychotherapists, today.
Chapter 5. Behaviorist therapy as an educational mode of therapy based on the exploitation of levers.

Section 1. Behavioral therapy

In the 1920s, influenced by John Watson, USA psychologists created a radically new pragmatic movement called Behaviorism. This led to a form of psychotherapy based on the education of reflex behavior. One of the novelties of this approach was complete coherence between an academic psychology and its therapeutic application on patients. These early Behaviorists did not analyze what behavior expresses, or the specific behavioral signs that can influence others. For that we have to wait for the coming of nonverbal communication studies and systems theory (Bateson & Mead, 1947). Most of the time they did not make a detailed analysis of the structure of a behavior, but only studied the effect of behavior (e.g., pressing on a button). The main goal of behavior therapy seems to have been educational. If a person had inappropriate automatic behavior, the therapist would try to recondition those mechanisms that regulate behavior in a more appropriate way (Watson & Rayner, 1920). This aim was apparently close to Janet’s notion of automatic behavior and thinking. However, in a radical move, Watson and his colleagues threw away all forms of hypothesis testing on unobservable phenomena as trash. Thoughts are an example of an unobservable phenomenon, while behavior can be recorded and reliably observed by trained colleagues. The mechanisms that organize verbal and nonverbal behaviors are unknown. They form a black box that cannot be studied by the scientific methods that existed at the time. This move went beyond Janet’s need for clear facts, as he still looked for ways of studying the mind, and of using introspection. For Janet hypothesis-testing procedures is necessarily a way of calibrating models and theories. Behaviorists kicked introspection out of most psychological laboratories.

Section 2. Attacks on Behaviorism in the 1970s

Behaviorism was severely attacked by European psychologists and philosophers (Koestler, 1968), but it won at least one battle: the use of introspection was banned from experimental psychology during the rest of the century. Piaget only used introspection timidly. Testing also requires forms of highly controlled introspection. Psychotherapies influenced by psychoanalysis were the only stronghold that continued to use this option to explore the intricacies of the realm of impressions.

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93 A film on how Watson and his team worked with a child (little Albert) can be found on the net. For example on: [http://www.simplypsychology.org/classical-conditioning.html](http://www.simplypsychology.org/classical-conditioning.html), viewed in December 2014.
During the 1970s my teachers in psychology and in psychotherapy, for once, agreed: behaviorism and Darwinism (e.g., the ethology of Konrad Lorenz) were dangerous, simplistic and useless. Although we had an excellent course on conditioning in our university, given by Yvette Hartwell, I obeyed the general trend and avoided reading what was published in these domains. I also followed Piaget’s (1965) advice that philosophy (but not epistemology) was a waste of time. As this position was dominant in my intellectual environment, I zapped through this literature as much as I could. However, the analysis of nonverbal behavior, and the gentle push of some of colleagues and friends such as Christin Caldwell, forced me to go beyond these old prejudices.

Section 3. Recent developments in psychotherapeutic methods that analyze behavior

We have seen how Freud initiated psychotherapies based on the potential of expressive behavior to support various forms of introspection. Behaviorist psychotherapists inspired by Watson explored the possibility of using what I call levers. Modifying behavior in a specific manner was a way of provoking reactions in the unknown complex territories of the organism, and then observing what behavioral changes became implemented. If these results were not satisfactory, the therapist would use a slightly different educative procedure and see how that influenced the targeted behavior.

This one lever model was then used in other forms of psychotherapy. To help patients who suffer from a form of mental defect, psychotherapists looked for manageable ways of influencing what cannot be really grasped, with the hope that their intervention could a) repair misleading routines of the mind, b) repair unreliable connections between thoughts and its organismal and social environment and c) improve our understanding of how all these functions. In other words, they looked for levers that could influence psychological dynamics, and then observe how their use can promote a constructive reshuffling of nonconscious regulators. In the realm of Reichian and neo-Reichian therapists, cathartic discharges were also used as a form of lever.

Once self-exploration through expression and levers forms of psychotherapeutic intervention became available, many practitioners explored ways of combining several ways of combining these two methods. You may also have noticed that initially psychotherapeutic models mostly address intra-organismal, and even intra-psychological models. In the case of psychoanalysis transference analysis was initiated by Freud, but it is mostly pupils such as Ferenczi that developed notions of inter-psychic transferential dynamics (Haynal, 1999; Heller, 1986).
Section 1. Expressive and educational lever therapeutic strategies

We have, up to now, explored two strategies based on the notion that no scientist can provide a usable model of how the mind functions and how it inserts itself in its immediate environment:

1. Controlled free expression: The first psychoanalysts mostly explored what a patient expresses by using a verbal free association method. This material is then calibrated by the therapist, using more or less simplistic forms of interpretation. In most situations, using complex forms of interpretation is a waste of time, as patients are not prepared to integrate complex theory while he or she tries to integrate complex experiences.

2. Training corrective procedures: In behaviorism one begins with a diagnostic and a relevant corrective conditioning procedure using behavioral virtuosity as a lever, then one observes how the organism reacts, and readjusts the corrective in function of how the organism reacted.

The advantage of using a one lever, or expressive device approach, is that a practitioner can develop detailed techniques that can be taught and shared with other colleagues. Such one modality approaches were probably indispensable at a time when what was being explored was already too complex to be adequately managed. This type of approach is also relatively easy to integrate in empirical and scientific research programs (Jung, 1907). This is probably one of the reasons why most popular psychotherapy schools focus on one main device correlated with symptoms defined by psychiatrists.

Section 2. Introducing active techniques in the realm of free expression psychotherapies

With the First World War, the army wanted to use the new psychotherapeutic tools to help traumatized soldiers. Famous medical figures such as Cannon and Goldstein, as well as psychoanalysts, were asked to provide helpful active techniques for trauma. This forced psychoanalysts, like Ernst Simmel, to use the tools of psychoanalytic theory as a frame for educational modes of intervention, which mixed spontaneous expressions such as dreams and advice in a tighter method than the one psychoanalysis

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94 I refer to this study rather than other studies of that period, because it coordinates psychological (free association) and somatic (galvanic response) data. Jung mentions Janet and Claparède as references in his experimental studies on free associations, which are for him (Jung, 1906, p. 404) a form of automatic thinking.

95 Bizarrely, although Janet has had a strong influence on trauma therapists since the Second World War, I have not seen his name mentioned for trauma work during or after World War I.
usually provided. This movement also led to the creation of psychoanalytic clinics in Berlin and Vienna that helped patients who could not afford (financially and/or time-wise) psychoanalysis, but who could benefit from its general stance. To develop these short cuts, psychoanalysts were able to create a compromise between psychoanalysis and more polyvalent forms of intervention used in the days of Cathartic Method and Janet’s Psychological Analysis. These changes led Freud to set aside his first topic (conscious, preconscious and unconscious) model and propose a more interventionist second topic (Id, Ego and Super-Ego).

During the 1920s, Sándor Ferenczi (1920) attempted to synthesize the implications of these changes of technique by proposing a new Psychoanalytic Active Technique. He went as far as to integrate certain aspects of behavioral therapy (Ferenczi, 1921). This helped to include different ways of exploring the effect of behavior on the psyche. For example, Ferenczi would ask patients to explore how certain behaviors could be used as a source for a free association exploration, just as dreams could be used as a base for such an exploration. He would also propose that patients explore new ways of using an old behavioral pattern and then use free association and transferential dynamics as ways of exploring the impact of new ways of doing and perceiving things. For example, in one case, he asked a female patient to explore why she always crossed her legs on the couch by voluntarily preventing from touching each other. In another case, he asked a patient to explore different ways of singing a song she had dreamed. Ferenczi and the patient thus became conscious of a whole series of defenses that inhibited her capacity to lead a pleasant life. Ferenczi thinks that this content would probably have never appeared if he had followed a classical psychoanalytical approach, or would at least have taken another few years before it became accessible to the patient’s conscious emotional system. Ferenczi also noticed that as soon as he mixed modes of intervention cathartic reactions became more frequent. This active approach has created a major shift outside of the psychodynamic realm, creating a space for a wide range of new approaches, such as systemic, gestalt, humanistic movements and body psychotherapy.

Section 3. The return of body and somatic phenomena in psychology and psychotherapy

The integration of behavior and body techniques in a psychodynamic approach was officially opened once Freud had declared, “the Ego is, first and foremost, a bodily ego” (Freud, 1923, II, p. 26). This formula was often used by Otto Fenichel, who taught it to the first Norwegian body psychotherapists in Berlin and Oslo. It was often quoted by Gerda Boyesen, who mostly talked of the “motoric ego” (Boyesen, 2001). General practitioners influenced by psychoanalysis, such as Adler and Groddeck also jumped on this formulation to defend a holistic organismal vision of psychoanalysis.

Freud’s new formula fitted well with the general spirit of European psychology at the time. To integrate what they believe to be the more interesting proposals of behaviorism,
researchers such as Henri Wallon (1934) and Jean Piaget (1932) were embodying (to use a more recent term) their analysis of the development of psychological dynamics. For example, Wallon studied the impact of trauma and psychomotor functions after the First World War, and the central role motor activity for the development of emotions, interactive skills and representations (for example the quality of one’s body representations). Ulf Geuter and his colleagues (2000, 2010) remind us that, in 1931, the sixth congress of the “Common Medical Society for Psycho-therapy” met in the German town of Dresden. Its general topic was “treating the soul from the body.” The famous Psychiatrist, Ernst Kretschmer, was the chair of this congress. The Jungian analyst Gustav R. Heyer spoke on “Treating the Psyche starting from the Body” and suggested to include gymnastics, sports, breath work and massage into the psychotherapeutic treatment. Other speakers claimed to see psychic as well as somatic phenomena as functions of the entire organism. One speaker went so far as to state that a combined body-mind-therapy would be the future of psychotherapy. Georg Groddeck (1931) gave a presentation on his way of combining deep muscular massage and psychoanalysis.

In Berlin, during the late 1920s, the psychoanalyst Otto Fenichel became involved with the gymnast Elsa Gindler, who explored movements and breathing from the outside and the inside. During five years, Fenichel followed Gindler’s course for men (Fenichel, 1927), to try to rid himself of the terrible migraines that no physician or psychoanalyst had been able to cure. It can therefore be said that Fenichel had regularly used a body-mind method to explore himself, which was not the case of Reich. Fenichel (1928) organized presentations at the institute on the way to integrate certain aspects of Gindler’s work into psychoanalytical thought, which he then published. This opened up a discussion on how to integrate the body and soma in psychoanalysis with Franz Alexander and Alexandre Radó, who later created a psychoanalytical psychosomatic medicine.

Henri Wallon’s vision is also that of a sensory-motor development of affects and intelligence that forms character. He became communist during the Second World War. His use of dialectics made him develop considerations that are not so far from the communist Reich.
We only have indirect evidence, but I have the impression seem that Fenichel and Gindler observed that the spirit required to explore body movements and the spirit required to analyze dreams through free verbal associations is different. These approaches require different theories, a different way of relating to pupils and patients, and a different inner attitude. In one case, Elsa Gindler\(^97\) had noticed that one of her pupils had particularly tight neck muscles, but did not manage to loosen them. She sent this pupil to Fenichel. With his psychoanalytic technique, he managed to unearth repressed memories that explained and solved the problem. The chronically tight muscle muscles became more flexible. This case confirmed increasingly general impression that intense interactions between muscular tone and repressed emotions and memories can exist in some cases. Fenichel and Gindler seemed to agree that it is not possible to combine high quality bodywork and psychoanalysis directly. They would have recommended that the patient receive help from an expert in bodywork and help from a psychoanalyst\(^98\). This direction led to the creation of psychotherapy teams. Examples of such group work are: Esalen Institute in California, founded by Fritz Perls and his colleagues; the Boston Trauma Center, created by Bessel Van der Kolk and his colleagues; and the psychosomatic department of the Noirmont clinic in Switzerland, created by Duc Lê Quang and his team.

It is in this intellectual atmosphere that Wilhelm Reich arrived in Berlin and joined those who explored ways of integrating notions derived from body techniques in psychoanalysis. The integration of nonverbal cues made sense for his model of character analysis, which underlined the importance of being in contact with how a person shares a certain verbal content. This helps the therapist to grasp what a patient experiences and how he can integrate what is emerging\(^99\). Like Ferenczi and Grodeck, Reich began to explore ways combing the analysis of behavior and body analysis (active work on muscular tensions and breathing patterns, and an in-depth analysis of habitual forms of behavior) in an integrated way to enhance his psychoanalytical method of character analysis. It can thus be said that the Wilhelm Reich of the early 1930s was one of the first body psychotherapists. He also used free association of movements and education of behavior as modes of intervention; and, he - also - found that such a way of working could activate strong cathartic experiences.

\(^{97}\) Fenichel does not mention her, but I assume it her. It could also be Fenichel’s wife.

\(^{98}\) This was the position taken by Trygve Braatey and Aadel Bölow-Hansen, who were mostly influenced by Otto Fenichel, but also knew Reich well.

Section 4. Antidepressant medication and psychotherapy

Another type of lever that is often used to heal psychological sufferance is medication. Although prescribing drugs is not recognized as a form of psychotherapy, I have observed that integrating the use of medication in a psychotherapy process can be extremely useful. To illustrate this point I will begin with a few personal reactions I had when I followed an interesting series of seminars on psychoanalysis and medication. It was organized in Lausanne, during the year 2014, by Renato Seidl and Lynn Gaillard. I will not summarize the discussion, but will highlight a few points that caught my attention during the discussion.

My perception of psychoanalysts is that they often have an interesting vision of psychological and somatic dynamics, as some of them are psychiatrists, and therefore trained in medicine. However, they have no theory on active multidimensional interfaces between these two dimensions, such as the ones used in body psychotherapy. Most of the time the seminar followed this predictable trend. On the one hand psychoanalytical psychiatrists attacked medication as often inefficient, with strong undesirable secondary effects, supported by heavily biased empirical research that does not lead to serious scientific formulations. Furthermore, they accused medical industry of sponsoring biased diagnostic systems that define a psychopathology by the effects medication can have on psychiatric symptoms. Some of them insisted on the fact that the impact of antidepressant medication only partially overlaps with what clinicians define as depression. They also stressed that these drugs can create a heavy dependency, somatic health problems and sometimes suicidal propensions. They were less precise on the limits of psychoanalysis for the treatment of depression. As some were active psychiatric researchers, they were well informed on such matters.

At a more psychological level, they often discussed the way a patient symbolizes the medication, and the transferential dynamics that emerge when a patient has a psychiatrist who prescribes drugs and a psychotherapist who provides psychoanalytic support. These discussions often led to fascinating discussions that often criticized the fact that many psychotherapists tend to ignore the fact that the patient takes medication. Professionals tend to be, for ethical reasons, as none intrusive as possible concerning what colleagues do. One may analyze dreams and transference between patient and psychotherapist, but one does not intrude in the relation between the patient and medication. Some Freudian psychoanalytical psychiatrists even suggested that in many cases recommending antidepressant medication was a counter-transferential sign that showed that the psychoanalyst does not trust his psychodynamic method. This is for me an interesting argument, as it stresses the notion that for such analysts depression is necessarily a purely mental phenomenon. It is a good example of a vision in which, contrary to the position of most body psychotherapists, the mind is quasi-independent from other organismal dimensions. We are thus back to the programing engineer metaphor.

These are some of the extreme positions taken in what was a lively seminar, which included a great variety of positions. The aim of the seminar was to help psychoanalysts and other colleagues to focus more courageously on the integration of medication in psychotherapeutic dynamics.

Being a body psychotherapist, integrating somatic and psychological dynamics in an explicit way, is a part of my work. When an antidepressant is experienced as helpful, I
ask the patient to describe, as precisely as possible, in what way; and then explore with him how we could find a useful similar impact without medication. For example, some patients report an experience of having more *inner space*. The patient does not know how these changes came about, but he has an explicit experience of an inner capacity he appreciates. I may then show that a similar inner space can be found through breathing exercises, dream analysis, clarifying issues, orgasm, and so on. In body psychotherapy, we often have patients who report feeling whole again and more inner space after an exercise. The difficulty, of course, is helping patients to acquire this capacity in a lasting way, be it through classical psychotherapy and/or body-mind exercises. I also mention empirical studies on mindfulness that show that this experience can be acquired through meditation.

I have chosen the easy example of a patient who takes an efficient antidepressant medication, but there are, of course, cases that are more complex. For example some patients who became chaotic when we discussed certain topics, could approach them in a more grounded way with medication.

**Section 5. Distinguishing psychological states and psychological schemas**

Recent research on psychotherapy has focused on *nonspecific factors of change in psychotherapy* (Bentzen and Hart, 2013, chapter I; The Boston Change Process Study group, 2010; Stern, 1995, chapter 10). These factors can be observed during psychotherapeutic interactions independently from the specific technique or modality use by the psychotherapist. The focus is on methods and objectives that enhance the efficiency of psychotherapeutic modes of intervention.

In this perspective, states refer to global psychological dynamics, and schemas to specific actions. Both can be characterized as a mix between physiological arousal, affective activation, forms of memories and ways of thinking. Schemas are relatively well differentiated as several schemas, or several versions of a schema, can occur during a given state, or even in several states. Half way between a global psychological state and a specific schema, Stern (1995, p. 93) distinguishes *networks* of schemas, that group sensorimotor, perceptual, and conceptual schemas. These can form specific ways of being with another person (e.g., being hungry and waiting to be fed). The following quote shows the complexity of models that analyze how these layers of organismic and psychological phenomena influence each other:

Stern (1998) points out that [...] cognition research has found that representations, memories, and motor patterns do not exist in a fixed, final, and absolute form that is waiting to be triggered or activated; instead, they are composed or constructed anew every time they are brought into working memory, based on the requirements of the given context. Stern describes that whatever happens in the present moment will activate all the networks of schemas at all hierarchical levels that have any mental or physical connection to the current ongoing activity. (Bentzen and Hart, 2013, p. 15)

The reader will notice that psychological states and schema are organismic dynamics that “recruit” and/or “are recruited by” psychological dynamics in a manifest way; but
these psychological routines are not always central to what is activated. I will nevertheless use this vocabulary until more efficient terms appear in the literature. This frame is relatively close to the one I use today, with my patients.

The practical difficulty encountered is that the layers of psychological dynamics mobilized within an organism are so differentiated that they may push towards different goals, and defend different agendas. They spontaneously generate dissociated forms of regulation that require different forms of therapeutic interventions:

The therapies that privilege the word and symbol often had trouble in pursuing and then integrating nonverbal memories. Similarly, the therapies that have arisen to address this lack (e.g., hands-on therapies) have been able to evoke isolated nonverbal experiences and memories but often have been less successful in integration this material into the intricate story line of a life history. (Stern, 1998, p. 199-200)

The need to integrate such heterogeneous dynamics into a narrative has been a key feature for some present-day psychotherapists, in most modalities. This explains the increasing use of expressions such as “integrative and eclectic” in the field of psychotherapy during the first decades of the 21st century. These synthetic approaches often stem from “a dissatisfaction with single-school approaches” (Norcross, Godfried, 2005, p. V). Technically, this allows therapists to regulate their interventions in function of new criteria that adapt the mode of intervention to the patients’ needs and capacities of all ages:

“For Roth and Fonagy (1996) “Securely attached children and adults with a high mentalization capacity will probably have developed a sufficient degree of self-consistency to be able to engage with a narrative dynamic, and interpretative treatment approach. Older children and adults who have developed a mentalization capacity will be able to symbolize, and have fantasies, wishes, etc., that help organize self-regulation patterns and interactions with the therapist. Others who have not developed an adequate mentalization capacity undoubtedly will be unable to benefit from this psychological treatment approach and, indeed, will require methods that are aimed more at attunement in the more deeply seated subcortical structures. Here, the emotional maturation involves building attention control, arousal regulation, affective attunement, etc., in order to elevate primitive pre-symbolic sensorimotor affects to mature symbolic representations. Fonagy (2005) even argues that some interventions might be harmful because they require capacities that the clients do not possess. This will only make them feel inadequate and might further exacerbate their condition.” (Bentzen and Hart, 2013, p. 36-37)

Chapter 7. The explosive potential of connecting devices in the organism

Brain cells that fire together, wire together” (Doidge, 2007, p. 427
In the previous sections, I included body psychotherapy in the list of psychotherapies that use one or several levers and expressive methods to explore psychological dynamics that are integrated in the regulation system of an organism. It was inevitable that some psychotherapists would ask themselves how they could directly influence the mechanisms that connect the psychological and somatic dynamics within an organism. As science gradually improves its understanding of psychology and of how organisms function, therapists began to give more substance to this interest.

Section 1. Connecting devices

The theory of how specific organismal procedures can interact with each other is still work in progress, in psychophysiology and in computer engineering. It requires an analysis of a web of connecting devices that function as interfaces between mechanisms that follow highly variable procedures. Let us consider two types of interfaces:

1. Interfaces between different types of procedures in a computer program or in the mind (Piaget, 1975).

2. Interfaces between different dimensions of a machine or of the organism.

That one needs interfaces between mental routines shows how varied they are, not only in their aims and requirements but also at a procedural level. For example, explicit conscious reasoning follows a different type of routine than automatic reasoning, or short and long-term memory use different types of logistics, in a personal computer as well as in the brain and in the mind. These issues are relevant for psychotherapists who work with attention deficit and/or high potential patients. It is remarkable how these cognitive issues can have a deep impact on affective and relational dynamics and on self-esteem (Tuckman, 2009). Yet these issues are regrettably forgotten (or perceived as marginal) by
psychodynamic, humanistic, systemic and body psychotherapists. A high variability of genetic, neurological, experiential and cognitive procedures has, for example, been well documented in research on specific clinical groups such as autism spectrum disorders (Schaer et al., 2014).

Then we have interfaces that connect different dimensions or systems. For example, muscular activity requires a device to transform a nervous impulse into a muscular contraction, and another device to sense if the muscle accomplishes what was planned. This ongoing feedback is necessary because nervous impulses only partially correlate with muscular activity. Muscular activity does not follow the same type of procedures, and is not made of the same tissues, as nervous activity, cardiovascular coordination, emotional mobilizations, nonverbal communication or mental cogitation. In the computer world, connecting devices are used to convert analog signals into digital information, or electrical computation into images on a screen.

In a presentation given with Rubens Kignel, at the 2014 Lisbon EABP (European Association of Body psychotherapy) congress, we gave the following examples to show that the influence of the mind on muscles is not of the same type as the influence of muscles on the mind:
1. An exercise taken from Edmund Jacobson’s (1938) Progressive Relaxation showed how muscular relaxation can induce psychological relaxation.

2. An exercise taken from Johannes Heinrich Schultz’s (1932) Autogenic Training showed how mental relaxation can induce muscular relaxation.

Having experienced these two methods, the participants could easily perceive that these two methods were a) often efficient, and b) so different that they require a different inner atmosphere and different forms of involvement.

Section 2. Passing from one psychological state to another: the Tai Chi of ordinary life

Since I have begun to think on the material of this text, I work differently with patients. Since a few years I explored different ways of tracing schemas, and on how to improve on its repertoire. New habits and outlooks will inevitably put old ones in a different context and repertoire. They will then no more have the central role they previously had. I now use the same frame to analyze different psychological and/or organismic states. Janet mostly distinguished hypnosis, being awake and sleep. I have already mentioned
that being in a tonic state or relaxed state is also relevant. Anxiety, depression and bulimia are also different states. I spend time helping patients to sharpen their awareness of each state, and to differentiate them. For example anxiety, depression and bulimia are for me three different states. Learning to differentiate them may for example help them may for example help patients who suffer from bulimia. Some fall in that state as soon as anxiety reaches a certain intensity. I then help them to distinguish the two states, so as to render their association less probable. These discussions often lead to discussions on how to find ways of entering, avoiding and coming out of a state; of how to pass from one state to another. These issues can be dealt with in different ways. Given my familiarity with the technique I often use the jelly fish exercises and model (see section 5). Another concrete way to use a grounding exercise, then asking the patient to lie on the mattress and feel whatever is happening, and then of coming back to the chair used by patients in my office to discuss what happened and integrate. We here have a concrete example of three easily definable states, and can discuss of how one passes from one to another. For example, if the relaxation was deep, coming out of it requires from 10 minutes to one hour. The discussion part may then be programed for the next session. The essential point is to feel what transitions are required, and to become familiar with such issues.

This model is also observed when an organism passes from one social context to another. In different contexts a person may have access to emotional and cognitive procedures that are not available in other contexts. The physiologic dynamics may also be modified. However, as always in my theoretical construct (Heller, 2012), links are not direct. They may be recalibrated in different situations.

Section 3. Touch and psychotherapy

There is a myth that although the mind is embodied touch has nothing to teach to the psychologist. The thesis I will defend today is that there are many areas of the mind and affects that can be particularly well explored when touch is used, and that touch is a particular refined tool to explore how the mind of the therapist and the patient contacts an organism. For example to check the quality of a person's body awareness. A patient may have the impression that his hands are cold. This may be confirmed when the therapist touches the hands, but it some cases the hands that are experienced as cold have a warm skin. Exploring such details in a shared may sometimes lead to instructive findings. Touch is such a wonderfully sensitive way of exploring the mind and affective dimensions that it must only be used in psychotherapy by colleagues who are particularly well trained in body and psychological dynamics and in ethical issues. There is a wide variety of information that patients and/or therapist can only experience through touch.

One of the consequences of developing an organismal psychology has been to include touch as a way of working on some connecting devices that associate psychological dynamics with other organismal routines. This trend was developed by Reich, and in most neo-reichian schools. Gerda Boyesen began to use touch when she introduced massage as a psychotherapeutic tool. However, her refined physiotherapeutic skills helped to develop highly sophisticated ways of using touch in a variety of psychotherapeutic frames,

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100 This section is part of the material I prepared for a one-day post-congress workshop in Lisbon.
following considerations that were not put in writing. Her pupils have continued this exploration, and now propose more explicit models that can frame and support the use of touch in psychotherapy during vegetotherapy sessions (as in Bioenergetics for example), but also as a way of communicating. For example touch can be used to “quickly regulate physiological and emotional states” (Westland, in print, 219). Gill Westland, one of Gerda Boyesen’s pupil, has recently (Westland, in print, chapter 8) written an up-to-date review of the clinical complexities and unique resources of using touch in psychotherapy. She shows that today touch is used by a large number of schools, but that its use is not always explicitly integrated and/or mentioned. In other schools, often inspired by the Norwegian tradition of body psychotherapy, the use of touch is well integrated in the explicit theory that is used (see also Brown, 1998). Touch is one of the many levers than can be used to explore how a person integrates its way of relating to the world.

Recent psychophysiological studies confirms that touch is involved in important connecting devices associate to affective regulation. Their data suggest that the human body is not such a neatly self-sufficient island after all. In a study on stress and acne vulgaris, Montiel-Castro et al. (2013) show that there are strong connections between brain, gut and skin. The organism is perceived as a super-complex ecosystem containing trillions of bacteria and other microorganisms that inhabit all our surfaces; skin, mouth, sexual organs, and specially intestines. It has recently become evident that such microbiota, specifically within the gut, can greatly influence many physiological parameters, including cognitive functions, such as learning, memory and decision-making processes. Human microbiota is a diverse and dynamic ecosystem, which has evolved in a mutualistic relationship with its host. Ontogenetically, it is vertically inoculated from the mother during birth, established during the first year of life and during lifespan, horizontally transferred among relatives, mates or close community members. This micro-ecosystem serves the host by protecting it against pathogens, metabolizing complex lipids and polysaccharides that otherwise would be inaccessible nutrients, neutralizing drugs and carcinogens, modulating intestinal motility, and making visceral perception possible. It is now evident that the bidirectional signaling between the gastrointestinal tract and the brain, mainly through the vagus nerve, the so-called “microbiota–gut–vagus–brain axis,” is vital for maintaining homeostasis and it may also be involved in the etiology of several metabolic and mental dysfunctions/disorders.

Other studies how touch impacts on psychophysiological dynamics that tend to generate affective pain. Arck et al. (2006) stress the following points:
• Specifically, we portray the skin and its appendages as both a prominent target of key stress mediators (such as corticotrophin-releasing hormone, ACTH, cortisol, catecholamines, prolactin, substance P, and nerve growth factor) and a potent source of these prototypic, immunomodulatory mediators of the stress responses. We delineate current views on the role of mast cell-dependent neurogenic skin inflammation and discuss the available evidence that the skin has established a fully functional peripheral equivalent of the hypothalamic–pituitary–adrenal axis as an independent, local stress response system.

• They stress that nerves and skin are ectoderm. They follow basic similar laws.

The skin contains a variety of receptors, including thermo-receptors, photoreceptors, mechanoreceptors and chemoreceptors. They process sensory modalities that can detect mechanical stimulations such as contact, skin stretch, painful stimuli, heat, pressure, and vibrations. The sense of touch emerges from a combination of such receptors.

Skin can be dry/greasy, cold/warm (blood circulation), soft/rough, firm/loose (tone), pale/red (blood circulation) and have a variety of smells. It may also a variety of more severe issue such as acne, zona, and many others. There is always a variety of causes for each manifestation. Touch may also influence muscles (hyper/hypo) tone and cardiovascular dynamics.

Touch and massage have a well-known impact on moods for some persons, but predictability is low: it can soothe, tense, activate emotional discharges and/or have no apparent effect. Until a clearer clinical repertory emerges, most techniques that use touch should be used as an exploratory procedure. For example, with some people touch can be highly provocative and re-traumatising, while it can become a precious tool with other patients only after several years of psychotherapy. With others, it is best to use touch at the beginning of therapy, mostly with those for whom verbal techniques are particularly provocative and re-traumatising:

“Touch puts information into the organism, creates energy flow throughout the body, and thereby increases self-sensation. The feedback through touch is part of becoming more embodied and enables clients to stay more anchored in themselves
through awareness of body sensations. This is of particular significance with traumatized clients (Ogden et al., 2006). Clients become more contained, enabling more reorienting and reality testing. (Gil Westland, in print, chapter 8, p. 223)"

In discussions with colleagues, I have heard psychoanalysts who saw patients who had felt traumatized by a therapist who used touch, while body psychotherapists have seen patients who had been traumatized by the purely verbal approach used in a classical psychoanalytic setting. It is a petty that it is so difficult to communicate on such patients more often, so as to understand why certain forms of contact are constructive for some patients, destructive for others. The publication of cases is, of course, useful, but a supervised meeting between the psychotherapists involved by patients who react that way could be fruitful.

Section 4. Organismal therapy is not body psychotherapy

I call organismal therapy approaches that focus mainly on these connecting devices. Psychological dynamics are only one of the important subsystems to be considered, and its particularities are often reduced to the need to have a mind that has synergetic interests with the organism. Any psychological agenda that is distinct from the interests of the complete organism is considered pathological.

One of the interesting clinical findings of this type of approaches is that it confirms the hypothesis that emotions and instincts are grounded in these coordinating organismal devices.

Organismal therapies have had a strong influence on some important body and somatic psychotherapy schools. The first methods focus on the whole organism, while somatic psychotherapies focus on a mind that is a part of the organism, and all that connects mind and organism. The distinction may appear to be, at first, a nuance, but I will try to show that organismal therapies are a separate fascinating field, which does not have the same therapeutic aims as psychotherapy.

Well-known examples of such approaches are Reich’s Vegetotherapy, and the approaches developed by Cannon and Selye to tackle unsolved issues related to war trauma during and after the Second World War.
When, in 1934, Wilhelm Reich was expelled from the psychoanalytical movement for political reasons (Heller, 2012: 455f), Reich turned his back on all forms of psychotherapy. When he arrived in Oslo, he decided to create a new form of therapy, which focuses on how the global organism regulates itself and how it coordinates its connecting devices. For example, the common trait of epileptic and hysteric convulsions, for Charcot, was that both were activated by the same sort of dysfunctioning connecting devices that spread from the neocortex to the spinal sensory-motor reflexes. At beginning, remaining close to German physiologists who were treading on the same paths as those of Cannon, Reich mostly focused on what is connected by the vegetative nervous and hormonal sympathetic and parasympathetic systems.

This new organismal orientation was based on Reich’s previous work on the orgastic reflex. Orgasm is perceived by Reich as a loose innate reflex that automatically coordinates physiology, ways of breathing and moving, affective mobilization, behavioral virtuosity, cognitive patterns, relational strategies (hormonal, behavioral and psychological) and cultural symbols. He assumed that if such a mechanism exists in the realm of sexuality, a similar mode of functioning could also be found for all the drives that were the center of

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101 English-speaking physiologists tend to use the term *autonomous* nervous system.

102 This brings us back to a form of psychophysiology that had already been developed by Charcot and Janet for hysteria. It is probable that, for political reasons, Reich avoided using the model that Konrad Lorenz was developing on instinctual behavior in Vienna at the same time. Reich was a communist, while Lorenz had – at the time – sympathies for eugenics and Nazi positions. Yet they had common biological references, like Max Hartmann (1953).
attention of most psychoanalysts in the 1930s. While calibrating his Vegetotherapy, Reich assumed that thoughts and muscular tensions are surface phenomena that are regulated by deeper regulation systems grounded in the organism. For Reich, people like Fenichel and Gindler, when they analyzed representations and gestures, only observed the smoke produced by the fire he wanted to work with: “for Reich working at the bio-systemic level was to effect both the psyche and the body” (Boadella 1991, p. 22). Thoughts and movement are but the foam on top of waves that are activated by deep oceanic currents and the impact of social winds.

The notion that there exists a holistic energy y that follows paths that cannot be explained by physio-anatomy is well illustrated by the following quotation:

“Energetically speaking, the whole body can be viewed as a single cell with the skin as its membrane. Within this cell excitation can spread in all directions or flow in specific directions depending on the nature of our response to a stimulus.” (Lowen, 1967, p. 51)

Reich also found that this type of work often activates deep emotional catharsis that mobilized the whole organism in an important way. His predecessors had been uncomfortable with these cathartic organismal mobilizations. Reich decided to explore them, to understand why catharsis inevitably emerges when you work on the deeper connections between thoughts, body, behavior and physiology. He found ways of activating these catharses, of giving them the space they needed, and of setting aside the fears that prevented patient and therapist to explore how these trance states could reshape how an organism regulates itself.

Today, for most body psychotherapist, being a pure Reichian is folkloric, but throwing away all his findings would be wasting important knowledge. Sorting out what should be kept and what should be recalibrated is work in progress in the field of body psychotherapies. Throwing away his belief that he was fighting against a Martian invasion with Orgone guns is easily dismissed. His claims on curing cancer are more complex, as it encouraged Reich to work on the emotions of cancerous patients and find interesting observations on the links between cancer and affects. This line of exploration is still explored by some clinicians, not necessarily inspired by Reich in a direct way, today. Saying that some organismal energetic dynamics may also be involved in cancer also led to interesting observations, that can be used if one accepts that the energetics involved are not necessarily those of Orgone. George Downing103, for example, thinks that most of Reich’s Vegetotherapy methods remain useful if one uses current scientific definitions of energy instead. One does not need to believe in a cosmic, spiritual or life energy. It may be of interest that Reich explicitly differentiated Orgone from spiritual energy. He believed that all spiritual movements were dangerous. He inspired himself from ideas developed since Lamarck by biologists that claimed that evolution was guided by a specific biological energy that aimed at perfection, and was therefore distinct from physical energy. This line of research is now dead, but it was still strong during the first third of the twentieth century. It was defended in France by major figures such as Pierre Teilhard de Chardin and Henri Bergson. Finally, one may find in the future that some of Reich’s thinking may have contained some truths; but, for the moment, Orgone theory is closer to the visionary

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103 Appendix of Downing 1980.
realms of imagination and intuition than to science. The case of extraordinary scientists who become obsessed by unprovable ideas is not rare in the history of science. People tend to forget that Kepler was an astrologist and that Leibniz practice alchemy, or that Alfred Russel Wallace - co-inventor with Darwin of English evolution theory - used Gall’s phrenology and turned tables with spiritual guides.

While Reich was playing at the mad persecuted scientist with his Orgone research, he continued to work with patients in individual cessions. He began to apply Orgone theory to what was originally the Vegetotherapy he created in Oslo, and found strategies that I often use today, without using the Orgone theory. For example one of Reich’s claim is that Orgone pulsates; that all the galaxies, all the organisms, all the cells pulsate constantly, like the heart or breathing. When that pulsation is restricted, or becomes chaotic, illness necessarily ensues. One finds a similar model in Rudolf Laban’s ideas on dancing and in Rudolph Steiner’s spiritual anthroposophy. For them pulsation was one of several phenomena that organized the dynamics of a human organism. Laban’s ideas on the subject may have been passed on to Reich by Elsa Lindenberg, as she had worked with Laban. Reich, as usual, developed the notion to its most simplistic formulation and assumed that everything should pulsate. His ideas probably forced him to explore the experience of pulsating in a more detailed way than most of his colleagues. Even if Reich’s explanation is wrong, exploring the impression that there is a pulsation in oneself or in our relationship, has led to interesting clinical results that I continually explore.

I will explore this notion with you more concretely so that you can understand what I mean. To explain the notion that life energy pulsates, Reichians in Norway used a simple exercise that was then taught by many neo-Reichian body psychotherapists in the 1960s. I learned it with Eva Reich, Wilhelm Reich’s daughter. It is also used in Chinese massage, as I learned with my Japanese master Hiroshi Nosaki, who had probably never heard of Reich before he met me.

Although most body psychotherapists claim to have Wilhelm Reich as their founding figure, it appears today that this is only partially true, as some claim to have Janet as the grandfather of body psychotherapy (Boadella, 1997). There is a historical link between the birth of body psychotherapy as a field and Wilhelm Reich, yet Orgonomy and body psychotherapy only partially overlap. Body psychotherapists often explore certain chapters of Reich’s approach, and include other perspectives as well. (Geuter, 2015; Heller, 2017, Boadella, 1987). Reich’s Vegetotherapy and Orgonomy is a founding example of a therapeutic approach that mostly focuses on the organism as a global entity. His approach of the components of the organism (mind, body, physiology) as a secondary layer of his preoccupations from 1940 onwards. For example his more sociological preoccupations focus on how organism, nature and society interact (Reich, 1946).
Exercise II: Jelly Fish I, Pulsation Between the Hands

You relax, sitting on your ischia bones, back straight. You are aware of how you breathe. You then rub the palms of your hands together rapidly from top to bottom for a few minutes. Then you feel what happens between your hands when gradually you separate them until they are roughly 10 centimeters apart. You now focus on what you perceive within the space limited by your hands. You will probably feel what scientists call static energy. Something that could be described as an energy field. If you zoom on that sensation, some of you may have the impression that this field has a slight pulsation, that your hands spontaneously move slightly apart and then come closer in a rhythmic way.

Having proposed this exercise to many people, I have noticed that not everyone, but quite a few, feel a pulsation in the energy field that formed itself between the hands during and after this exercise. I tend to remain close to experience. I never deny an impression, but do not offer explanations easily. For example, I will not think that those who feel the pulsation are healthier than those that do not; or I will not necessarily associate the experience of being a pulsation to cosmic energy. However, I will use this type of experience to introduce a series of exercises on pulsation sensations in the organism that may lead to relaxation and a useful model to regulate relationships.

Let us continue this exploration together. Reich initiated movements where the whole body moves as if it were simple pulsations. Laban describes these movements as bodily attitudes that are determined by two main action forms. “One of these forms goes from the periphery outwards into space, while the other comes from the periphery of the kinesphere inwards towards the center” (Laban, 1950, IV, p. 83). Reich called this moving like a Jellyfish. In Oslo Ola Raknes and Gerda Boyesen transformed this concept in a specific suite of jellyfish exercises. These exercises are done lying on one’s back. Legs and arms move with the breathing. One passes slowly from being outstretched to having hands and knees close to the chest and then back to the outstretched position.

Jelly Fish II, Organismal Pulsation

For today, we will do a standing or sitting version of the jellyfish exercise. If you sit, I recommend you to sit on the ischia bones as much as possible. If you stand, be in the grounding position, with knees bent and feet slightly apart and parallel. Be sure that you spread your arms on both sides without hitting someone. This will probably require that most of you find a big enough space in the room.

You explore passing from stretching out your arms to having your hands nearly touching each other. You remain stretched or hands nearly touching for three breaths, and then move relatively slowly, independently from breathing. If you do the exercise standing, you can also bend your knees a bit more as your hands come closer to each other. You may also focus your attention to see when hands begin to feel each other’s presence, or when they stop to feel each other.

When I say so, you sit and feel for a while. Many people are relaxed after such an exercise, when it is done in a quiet room. In the present situation, some of you may feel a

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104 This text is part of what I prepared for the Utrecht conference.
few signs of relaxation, like a sensation of heaviness, warmth or tingling and streaming moving in the organism. Like for all relaxation exercises, some just do not like them. If it is your case, just open your eyes and do whatever you wish.

**Jelly Fish III, Relational Pulsation**

I suggest you do this exercise sitting, alone or with one or two persons, you feel at ease with. I will now give a small example of how this exercise can be used as a metaphor for the regulation of your involvement in a relation with someone. This is not an exercise of pure self-exploration, but a pedagogical intervention that may help a person to analyze how she regulates her relational involvement. I will therefore suggest four things:

— When your arms are wide open, you explore how it feels to contact whatever the other does or feels.
— When your hands touch the side of your chest, you explore how it feels to focus on your personal experience.
— When you gradually move from one extreme position to the other, you feel how it feels to make a gradual transition between the two body-mind postures.
— As you experience this exercise, explore the idea that it is impossible to have opened and closed arms at the same moment, and just as impossible to be opened to your inner life and that of the other. In other words, one has to find a rhythm during which we alternate between having a space for oneself and space for contacting the other. This rhythmic change can be done within a minute, within an hour, or within days. It all depends of circumstances. However, in all cases, the quality of transition movements is crucial to regulate this pulsation between being open to the other and being open to oneself.

After 10 minutes, I recommend you to talk of how you experienced this meditation theme. If you did this exercise alone, I recommend you to join others. We planned 30 minutes for this feedback session. There will be a break afterwards, so you can regulate the duration of your feedback.
Reich developed his Orgone work in Maine (USA). Not far from there, in Montréal (Canada), a decade later, Hans Selye developed his model on stress reactions to treat soldiers traumatized by the Second World War. Inspired by Cannon’s homeostatic model and theories on the fight and flight responses, he found that stress activates a psychophysiological circuit that coordinates cognition, affects, neurological reactions, hormonal activators situated in a variety of organs, cardiovascular responses, and the immune system. In this model, Selye shows that stress is produced by organismal regulators that malfunction and produce a negative vicious circle. Under stressful social circumstances, the organism acquires a self-destructive mode of functioning that guarantees momentary survival advantages. He describes chronic stress as a form of pathological organismal organization that needs to be chronically reinforced by certain ways of thinking and behaving. As in Reich’s model, we have an example of core organismal regulators that are influenced by - and influence - behavioral and psychological dynamics. Stress therapists need to work with the assumption that to transform this vicious circle one must simultaneously work at the metabolic level (with medication and breathing exercises for example),

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and initiate cognitive and behavioral changes. Stress is an example of a counterproductive affective coordination of the dimensions of the organism.

Organismal therapies such as those of Reich and Seyle, strengthen the impression that one cannot just change organismal connective devices in a mechanical way, as when you change a memory slot in a computer. As soon as a therapist explicitly and voluntarily pokes his clumsy fingers into the tricky circuits of organismal connecting devices, he may, without really knowing how, mobilize deep organismal regulation systems that spontaneously mobilize a variety of cathartic reactions. (Marvin Minsky, 1985, 6.13, p. 68).

Section 6. Organismal therapy and body psychotherapy: the need to experience connection

I call organismal body (or somatic) psychotherapies forms of psychotherapy that focus on mental changes, but use organismal methods such as Reich’s Vegetotherapy and Orgonomy, or Selye’s stress model, as one of their main frames of reference (Boadella, 1991). For example, Lowen, in his first book on *Bioenergetic Analysis* (1958), tried to synthesize Vegetotherapy and the methods of psychoanalysts like Fenichel’s. This first period supports the idea that Lowen was one of the first body psychotherapists. He then (Lowen, 1975) gradually returned closer to organismal therapy, but some of his pupils (Heinrich-Clauser, 2012; Geisler, 2005) continued to look for ways of combining psychoanalysis and neo-reichian methods. This is an example of what I call organismal oriented body psychotherapy. Several body psychotherapy schools fit this category.

A basic stance in organismal work is having a mind that experiences itself as being connected with the rest of the organism. This implies being aware of body sensations, but also of how working with the material body influences the mind. The mind may have the illusion that it is the center of a multitude of layers that surround it, because this is how
it spontaneously perceives these layers. However, it can also construct a more complex vision by exploring how these layers react to our mind, and discover that our mind is only central because it is an ethnocentric entity. As soon as it experiences how it interacts with the other layers of its ecology (physiology, body, others, society, nature and the cosmos), it has the means to discover that the sun does not necessarily turn around our mind. This construction requires a bidirectional awareness: feeling how our muscles react to our moods, and how they influence our moods; feeling how we influence others and how others influence us, and so on. Stanley Keleman (1985, pp. 61-102) the startle reflex is an "organismal reaction" that can become a form of stress when it becomes chronically mobilized. As it inserts itself in a developing organism, a chronic startle reflex becomes "a unique pattern of startle and stress that is characterized by the number, timing, duration source and severity of the threat posed either physically or emotionally to the organism." It may then lose some of the typical steps that characterize a spontaneous momentary startle response.

Acquiring the capacity to experience how we are connected is a vital necessity for the development of a deep ethical stance that grounds us individuals in the construction of tomorrow's democracy. It is through this message that Reich, following the path of Spinoza's 1677 Ethics, still has a durable influence on the development of organismal body psychotherapy.

Chapter 8. The System of organismal Dimensions

Correct and worthwhile work in this epoch of the growth of science is possible only when terms and concepts strictly correspond with what we wish to express. The labors of many authors known to us are unsuccessful because new thoughts have been concealed in old and inadequate expressions. (...) In numerous other researchers with which we are acquainted, the new terms employed do not convey new ideas but are cluttered with old truths not requiring a departure from the concepts inherent in the former terms. (Luria, 1932, The Nature of Human Conflicts, p. 3)
To simplify this discussion for clinicians and for myself, when I am interacting with a patient, I have proposed a simple model that depicts the main dimensions of the organism I refer to during body psychotherapy sessions. Each of these dimensions are subsystems of the organism for which I use a particular set of tools. I principally differentiate, within an organism, metabolism, body, behavior and the psyche. I have also added a category of general organismal regulation system that attempts to coordinate these subsystems.

These categories are the targets of types of intervention. These targets are probably more clearly defined and delimited in the theory of the therapist than in the actual organism. Let us take the example of a heart surgeon who needs to perform a delicate operation of a patient’s heart. Ideally, he would ask others to prepare the patient so that he can directly intervene on the object of his expertise: the heart. This would mean that an anesthetist will have taken care of psychological and metabolic dynamics. Another person would have opened the skin, muscles and bones of the thorax. Technicians help the surgeon to regulate blood circulation issues, tools and the usual electronic gadgets. Only then can the surgeon use his incredible knowledge of the heart as if it was not imbedded in highly complex organismal ecology. In the same way a psychoanalyst may take the time to analyze every aspect of a dream and its associations. In body psychotherapy we sometimes think like that, and focus on muscle tone, or a postural configuration, or a dream, of a way of handling an object, or a relation pattern, or a way of breathing, or a dream. Except that we never only do one of these things. During a psychotherapeutic process we hop from one of these modes of intervention to another. Let us say I am working with how a patient manages his anger. I may have entered into that topic because some of his mimics and muscular tensions caught my attention. I then ask him to sense these tensions. He moves them, attempting to relax them. I may also tell him how I perceive these

\[106\] This is not a real patient, but the situation is typical.
tensions. Gradually the patient talks of his repressed anger. I may then discuss with him how anger was managed by his family so that I can get situate his anger in a larger picture.

Next week he comes with a dream that had woken him up in the middle of the night. We explore this dream verbally, but my way of dealing with free associations is to use everything that comes: words, mimics and affective reactions. As we discuss a certain part of the dream, the patient clenches his fist and breathes in a chaotic way. I ask him if he noticed that reaction. He says no, but is willing to explore what is happening with his breathing, and how it relates to the clenched fist. Having become aware of this reaction, he agrees to hit a cushion with his fist. He then remembers how he wanted to hit his father when he yelled at his mother. The images that emerge remind him of scenes he had experienced when he was six years old.

This is one of our many ways of exploring a single aspect of the patient’s emotional life, using a great variety of approaches. This implies that the body psychotherapist needs to remain clear on the forms of interventions he or she uses, and on how these forms intervention are connected in the patient’s organism, in the therapist’s experience, and in the therapeutic relational process. It is to situate this complex way of combining different forms of intervention in a single series of session that I have created the SOD model.

I will give you a more detailed view of how it can be used.
I. The Body

- I use the term body in its most restricted sense, to describe those mechanisms of the organism that are used to regulate the adaptation of the organism with gravity.

- Thus massage, postural dynamics and the coordination of body segments are examples of forms of intervention that characterize body techniques. Agreeing that this is a minimum definition of what interventions on the body are, does not imply that most experts of bodywork do not have a more complex agenda.
II. Behavior

- I use the term behavior to describe those mechanisms of the organism that are used to interact with external objects and creatures.

- Working on behavior is working on the following items:
  1. Handling a tool (e.g., a musical instrument)
  2. Verbal and nonverbal communication during an interaction with others.

- Creating new ways of interacting with one’s environments is the aim of behavior therapy.
- The stress here is not on how one thinks, feels, and moves, but on virtuosity, on how things are done.
• Let us take an example taken from the Classical photographic study of *Balinese Behavior*, of Margaret Mead and Gregory Bateson, in 1942.

• In this example we can observe a series of *behavioral patterns that can be situated in an interaction* between a mother and an infant. One can at least *infer* that it has a certain type of impact on the child and the mother. We can then interview the mother and those that observe this scene, and watch how the baby reacts. This is what Margaret Mead did, while Gregory Bateson was photographing.

They observed the following repetitive pattern in several mother – infant dyads.

1. The mother stimulates the infant. He responds enthusiastically.
2. The mother creates a distance, expressing negative feelings.

Wondering what emotions are involved in such a relationship, defined through a behavioral pattern, is a good way to begin an enquiry.
Rhythmic positions in some Balinese mother/baby interactions: repetitive positive stimulation/negative distancing

Behavior as a regulator

- Behavior coordinates inner and outer dynamics. Its activation requires a particular form of coordination between physiological, psychological, bodily and metabolic dynamics.

- This coordination must be adapted to certain requirements of the environment that, in some cases can be contradictory to the aims of one or several dimensions. For example, when planting vegetables or when using a computer for hours daily, behavior often has a negative impact on the body’s spine and back muscles. These behaviors can also activate different forms of dissociation in the mind.

- When a behavior becomes habitual, it influences how the organism calibrates itself.
Using video analysis to analyze behavior

- Daniel Stern, George Downing, Beatrice Beebe and others sometimes use video-analysis to discuss such patterns with a patient.

- They can view the pattern several times, sometimes in slow motion, and gradually explore how it relates to their breathing, their emotions, their body and memories.

- In such an analysis one of the crucial factors is the impact of a behavior on others.

Properties of behavior

- Behavior regulates inner and outer dynamics in function of what is required in the here and now.

- Behavior constantly mobilize inner and outer dynamics.

- Working on behavior requires a different form of training and knowledge than what is required to work on the body.
III. The functions of metabolism

- Metabolism is the activity that occurs within each cell of the organism, and the activity that regulate how cells communicate.

- It is at this level that the organism shapes its vitality, its bioenergy.

*This term is used here as a biochemical notion.

Metabolism & anorexia

- Metabolism is a key element when one works with breathing constrictions or eating disorders such as anorexia and bulimia. In anorexia, the metabolism accommodates to a new way of eating. Anorexic behaviour links itself not only with mental and affective dynamics, but also with new stabilized pathological metabolic requirements. Psychotherapy can help a patient to improve his behaviour and to reflect upon how he experiences his nutrition, but this work only becomes efficient in the long term once it has been supported by relevant metabolic changes. Metabolic dynamics need to develop ways of managing more food.
Internal breathing

Internal breathing is what happens when blood leaves the lungs, enter the blood and is then used as a fuel for metabolic activity. Oxygen helps cells to survive and communicate. organism.

"This term is used here as a biochemical notion.

Relevance of metabolic breathing for organismic psychotherapy:

Metabolic dynamics regulate how much oxygen a patient can live with, without feeling unstable, or hyper-ventilating.

In other words, metabolic activity regulates how much energy a patient can live with? How much energy for moving, emotions, sex, work, family, friends, etc.

Some people try to survive with a low metabolic activity. They than need to inhibit their breathing. Having less vitality, they will not feel their needs as strongly. This form of breathing anorexia often develops in cultures than do not know how to manage the vitality of infants.
I know that nearly every “psy” has his own definition of what the mind is. As I was developing my organismal model (SDO) I arrived at this possible definition that is simple to manage, congruent with the general model, and useful with patients.

**IV. The Psyche or psychological dynamics**

- Psychological regulation systems *allow an organism to participate in institutional social dynamics*. For humans this implies the capacity to handle media (tools, writing). This capacity allows organisms to participate in political, economic, cultural, artistic and spiritual institutions.
- *Psychology describes the means that are situated within the organism, which permit the construction of such social regulation systems*. Thus, psychologists study intelligence, while schools teach children to use their behaviour and mind in ways that will help organisms to participate in social dynamics.
Examples of how socially constructed participate in the regulation of mind and behavior were already provided by Luria in the 1930s, when he and Vygotsky showed that “at some point, in the course of solving these problems, speech ceases merely to accompany action and begins to organize behavior. (Luria, 1979, p. 49; Luria & Yudovich, 1973)”

Psyche / Behaviour

An important difference between behaviour and the mind, is that thoughts are relatively independent from the here and now. I can, of course, focus on what thought occurs to me in the present, but I can also read Homer’s epic, and contact thoughts that were inscribed on a manuscript thousand of years ago at a great distance from where I live. This capacity is crucial for institutional dynamics.

- Behavioral interaction unfolds in the present.
- Interaction on what may have happened or can happen is psychological.
- Psychological interaction requires a mixture of behavior and tools (language, or customs or media).

(Frey 1984)
V. Global organismic physiological regulation system

- The four dimensions of the organism are regulated by the physiological systems (nervous, cardio-vascular, breathing, hormonal, etc.).

- Each dimension (metabolism, body, behavior and psyche) can influence the physiological systems, and these physiological systems have a strong impact on each dimension.

- The psychological chore of these global systems are affective dynamics (instincts, moods, sentiments and emotions).

Affective dynamics

- Affective dynamics are organismic propensions that need to recruit the expertise of the psyche and behavior. They require metabolic and physiological mobilization as basic logistics.

A human organismic system
Conclusion

“A rose by any other name would smell as sweet.” (Shakespeare, Romeo and Juliet, Act II, Scene II)

Initially this article has two principal aims:

1. Participating in current attempts to find a general theory of psychotherapy that can provide basic common models and vocabulary, while protecting the creativity of each domain.

2. Trying to situate body psychotherapy in the more general field of psychotherapy and to find frames and metaphors that can help each modality to learn from each other.

To achieve this aim, I have tried to situate psychotherapy within the more general psychological theories, and have suggested that a good place to start is to look for links that exist between psychotherapy schools that implicitly or explicitly use scientific organismal psychological theories as a main reference. I have then tried to show that most psychotherapies that use this organismal frame seems to explore certain aspects of organismal theory more than others do. For example, body psychotherapy is particularly good at including what I call organismal connecting devices in a psychotherapeutic process. If one wishes to combine body psychotherapy and behavior therapy, for example, one can begin by spotting particular schemas as defined in Cognitive and Behavior Therapy (Young et al., 2003), and then find ways of connecting this device to more global organismal regulators as one would do in body psychotherapy. Body psychotherapists could also begin by using free associations of movements, and then focus on specific repetitive schemas, using what I have called lever methods such as those described by schema therapy or George Downing’s Video Analysis (Heller, 2012, Chapter 22). This implies a capacity to combine not only methods but also frames (e.g., ways of thinking) that allow one to combine techniques in an appropriate way.

As the writing of this article became increasingly clear. The first one is that it would seem that no one I know of can provide a general frame which could allow one to situate the various components of the psy realm in a general frame. Everything happens as if having a general picture of what is known about psychological dynamics was taboo. Any attempt to have a free research strategy in this domain I continuously hampered by rules, laws, economic constraints, partisan visions, defense of interests that prevent honest researchers to think clearly, as if the psy realm had not yet reached the stage of enlightenment des cribed by Kant in 1784, when he publicly searched for “An answer to the question: What is enlightenment?”. I cannot, alone in my corner, make a general proposal on such matters. I can only attempt to show, as I hope I have done in this text, that this task is an important one if one wants to support increasingly creative and useful research in the psy domain in general, in psychotherapy and in body psychotherapy in particular. The fight is not only at the level of institutional and financial support, but even more at

107 In 1931, Saul Rosenzweig had already written an article on the need to unify the theoretical positions of psychotherapy schools, using a mode of thinking close to Janet’s position. However, these psychologists were looking for a unique federative theory that did not leave much room for variety. For them variety can only lead contradiction.

108 When I use the psy term, I explicitly designate a term that includes psychology, psychiatry and psychotherapy as domains that all focus on a common denominator: psychological dynamics.
the restricted vision on our fields that most professionals in the psy field are encouraged to have.

An example of these useless constraints I have explored is not only the division by school in the field of psychotherapy, but also the manifestly antagonist relations that exist between biology, social sciences, psychology, psychiatry and psychotherapy. There are many examples of constructive collaboration between these three fields in the world, but each time everything happens as if one needed to reinvent the wheel to promote these forms of interdisciplinary. Psychiatry requires a strict scientific education in physio-anatomy, but somehow manages to convey the message that integrating what scientific psychology explores is a waste of time. Experimental psychologists are only integrated in psychiatric laboratories as methodological technicians paid to support the “real” knowledge of psychiatrists. Again, luckily, this is not always the case, but exceptions tend to confirm the general rule as soon as one analyzes the details of such collaborations. This general attitude towards psychology has spread to the field of psychotherapy, which was initially created by people trained in medicine. As we saw when I discussed Janet’s way of thinking, psychologists reacted to this rejection of what they were developing in clinical psychology by finding that psychotherapeutic expertise was a waste of time. I have also discussed the difficult relations between psychology and psychotherapy, defending the that both branches need to improve how they relate with each other. I do not see how one can generate something like an umbrella theory for the field of psychotherapy, or for one of its modalities (for example body psychotherapy), if one does not take into account available psychological theories and data. Without them, we inevitably drown in an ocean of vocabularies and models generated by colleagues who are sometimes proud of reinventing the wheel by baptizing a well-known phenomenon with a new name. Gerda Boyesen (1985, II, 5, p. 63) was at least honest when she wrote that she had made a certain number of personal discoveries during her practice that had already been made by others before. When she made these discoveries in her practice, she created a model that she had never heard of before. Then, when she talked about it to others, they showed publications that described a similar set of observations and conclusions. This is a common experience among creative people. But in the realm of psychotherapy schools certain people make such individual discoveries without having sufficient relevant collegial contacts to realize that what was a personal discovery was not a scientific discovery. They then teach this well-known idea using their own vocabulary and proclaiming themselves as the main reference for that notion. In the field of psychotherapy, that lack of general knowledge of what is known in different psychotherapeutic schools and in other psy fields modalities makes such claims particularly frequent. The same can be said of psychiatry classifications such as the DSM-V, which are so biased by financial and ideological interests that they cannot fulfill their first mission: providing a common vocabulary on psychopathology that can be used by all researchers. Psychiatry has been, during the twentieth century, particularly vulnerable to influences from ideologies, industry and personal interests. The examples are regrettably numerous. Psychotherapy and psychology have also accepted such forms of influences (Cocks, 1997; Geuter, 1984; Lemaire and Matalon, 1985), but given their smaller influence it had less dramatic implications.
It is mostly the scandals around Reich’s life, the general cultural fear of intervening on a body, the extreme positions of behaviorism, and the intellectual terrorism of psychoanalysts in the 1950s that has prevented body psychotherapies to look for a common psychological umbrella. Before the Second World War, most experimental psychologists mentioned phenomena such as the reduction of peristaltic noises caused by an increase of anxiety or the fact that the sensory-motor circuits are the basis of the development of intelligence as obvious demonstrated facts. Today such evident common knowledge is often ignored or trivialized. This why I recommend using organismal psychology as an umbrella that can at least form a common umbrella for an important number of currents in psychology, psychiatry and psychotherapy. To solve this issue I recommend using classical organismal psychology as a common-ground academic reference, hoping that psychotherapists can use it to generate a common-ground psychotherapeutic umbrella that can be used by most psychotherapy schools. Apart from behavioral therapies, a model of this type of coordination between psychology and psychotherapeutic models is the Gestalt therapy of Laura and Fritz Perls, which was manifestly built on a sound knowledge of Gestalt experimental psychology (Koffka, 1935). Having this solid frame, they formulated their clinical observation in association with other frames such as phenomenological philosophy, the neurology of Kurt Goldstein, the psychoanalysis of Otto Fenichel and Wilhelm Reich, and the body-mind work of Elsa Gindler, as they were formulated in the 1930s in Berlin and Frankfurt.

A last point concerns how body psychotherapy is presented. If one uses schools as references, such as those of Freud and Reich, than body psychotherapy is a modality. On the other hand, if one takes Janet’s synthetic approach as a reference, then most body psychotherapy approaches can be presented as multimodal approaches with a specialization on how body techniques can be used (Boadella, 2007). For the moment, in the Swiss health system, schools are still the reference for the acceptance of a psychotherapy training, but it may well be that soon school-specific methods will be considered as the content of a specialization in post-training rather than a general form of Janet- style training in psychotherapy.

References

I have put a * when the article can be found on the internet.


109 The original edition can be found on the web, but I have used the digitalized version in two volumes which is easier to manage, on [http://classiques.uqac.ca/classiques](http://classiques.uqac.ca/classiques) (September 2015).

110 I have worked on the version published on the web by the Bibliothèque Nationale de France ([http://gallica.bnf.fr/ark:/12148/bpt6k134579k](http://gallica.bnf.fr/ark:/12148/bpt6k134579k)) where the spelling of "psycho-analyse" has been kept. The version published by l’Harmattan uses the spelling "psychanalyse". This publisher is strongly influenced by the Freudian psychoanalytical movement, and may have wanted to water down the similitude between “psycho-analysis” and “analyse psychologique [psychological analysis in English and German]” which has probably been one of the reasons why Janet was so severe with Freud’s movement. Or maybe just used the one word spelling because it is the modern form that is currently used. Personally I would have kept, for this book, the old spelling.


