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# *Towards the Source of Thoughts*

## *The Gestural and Transmodal Dimension of Lived Experience*

**Abstract:** *The objective of this article is to study a deeply pre-reflective dimension of our subjective experience. This dimension is gestural and rhythmic, has precise transmodal sensorial submodalities, and seems to play an essential role in the process of emergence of all thought and understanding. In the first part of the article, using examples, we try to draw the attention of the reader to this dimension in his subjective experience. In the second part, we attempt to explain the difficulties and describe the interior process of becoming aware of it. Then we describe the structural characteristics of this dimension, and the different types of 'interior gestures' which enable us to connect ourselves with it. Finally, we formulate a genetic hypothesis about the role of this dimension in cognition, on the basis of which we suggest some research paths in the neuroscientific, educational and existential domains.*

### **Introduction**

The objective of this article is to explore a profound layer of our subjective experience, which seems to play an essential role in the emergence of all thought and understanding. In our Western culture, this dimension has only been recognised and explored by a handful of researchers, such as William James, who called it the 'fringe' of consciousness. This dimension of our experience can be considered 'profound' for several reasons.

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Firstly because it is generally pre-reflective<sup>1</sup>: although it constantly accompanies us, particular circumstances and/or interior training are necessary to become aware of it. Secondly, because far from being conceptual and abstract, it is concrete and embodied. Lastly because this dimension, being pre-conceptual, pre-discursive, and prior to the separation into distinct sensorial modalities, seems to be situated *at the source* of our thoughts.

Our method will be practical and empirical: it is not a matter of asking ourselves in an abstract sense about the possibility of this type of experiential dimension, or the possibility of its description, but of reflecting on the basis of the *experience* of this dimension and on the basis of the *experience* of its description. We are inviting the reader to advance along a dusty path, rather than make a journey on a map. Our study will rely on: (1) the analysis of 'second person'<sup>2</sup> descriptions, collected using an interview method which enables one to become aware of another's subjective experience and describe it with precision;<sup>3</sup> (2) the autobiographical testimonies of authors (writers, artists and translators) who acquired knowledge of this dimension from their own lived experience; (3) the work of researchers who have studied this dimension and its function explicitly, either in the therapeutic process (Eugene Gendlin), or in the infant's development (Daniel Stern); (4) research results which bring 'third person' confirmation of the existence of this dimension and its characteristics.

In the first part of the article, we try to draw the attention of the reader to this dimension in his own subjective experience, using different examples which help delineate a 'felt' or 'source' dimension. In the second part, we attempt to explain the difficulties and describe the interior process of becoming aware of this dimension. Then we describe the structural characteristics of this dimension, and the different types of 'interior gestures' which enable us to connect with it. Finally, we formulate a genetic hypothesis about the role of this dimension in cognition, on the basis of which we suggest some research paths in the neuroscientific, educational and existential

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- [1] We use the term 'pre-reflective' in order to emphasize the fact that this dimension is not unconscious, but only not yet conscious. References to the authors who introduced this word are given below.
  - [2] This method (Petitmengin, 2007a) enables the gathering of 'first person' data, i.e. data that express the viewpoint of the subject himself, in the grammatical form 'I...'. But as these data have been gathered through another person (a 'You'), it has been dubbed a 'second person' method, collecting 'second person' descriptions (Varela & Shear, 1999).
  - [3] This work of description is in continuity with Petitmengin-Peugeot (1999) and Petitmengin (2001), which dealt with the lived experience that accompanies the emergence of an intuition.

domains. It should be stressed that we are not presenting conclusions, but heuristics. This is simply a first step in the exploration of a vast field that until now we have not given ourselves the means of studying.

### 1. Examples of the Source Dimension

Never have I been so touched and almost moved by the sight of heather as the other day, when I found these three branches in your dear letter. ... But how glorious it is, this fragrance. At no other time, it seems to me, does the earth let itself be inhaled in one smell, the ripe earth; in a smell that is in no way inferior to the smell of the sea, bitter where it borders on taste, and more than honeysweet where you feel it is close to touching the first sounds. Containing depth within itself, darkness, something of the grave almost, and yet again wind; tar and turpentine and Ceylon tea. Serious and lowly like the smell of a begging monk and yet again hearty and resinous like precious incense. (Rilke, *Letters on Cézanne*, 2002, p. 9)

We propose that the reader, while reading the following short testimonies, interview extracts, or suggestions of experience, turn his attention inward, towards his own lived experience, in order to discern this dimension of experience inside himself.

Let us start with the experience of encountering a work of art. For example, imagine that you are in a museum that you know, in front of a picture that you like very much. Close your eyes for a few moments and contemplate the picture as if it was in front of you, while directing your attention to the sensation that this picture creates inside you. It is a blurred sensation, diffuse, difficult to describe but nevertheless intense and specific (it would be very different if you were imagining another picture). The same experience could be achieved by evoking for example a poem, or even a novel, the title alone of which evokes a complex world of fleeting impressions, which are fuzzy, but full of meaning.

Music seems to be a privileged way of coming into contact with this dimension of our experience. A piece of music, or a song, awakens, and causes to vibrate, a zone of ourselves which is difficult to situate, both intimate and diffuse, without precise limits. At such a moment we may have the impression, for example if we have been absorbed for a long time in very conceptual work, that this zone is numb, that we had forgotten its existence. But whatever tonality (explosive, nostalgic etc.) prevails, renewing contact with this dimension gives us a sort of insurance, a sensation of being unified, of being whole.

We may find this dimension again at the very first stage of the unexpected emergence of a memory. Sometimes, the memory is slow to

emerge, and take precise form: the usual infinitesimal stage of its emergence stabilises for a few instants, sometimes even for a few hours, which leaves us time to turn our attention to this strange experience, so subtly described by Proust in *Swann's Way*. Before we can even recognise the memory and name it, before the emergence of images, sounds and emotions which are precise and identifiable, we are overwhelmed by a feeling which does not belong to a specific sensorial register, but which is nevertheless specific and intense, full of carnal and living density. As Gusdorf has noted (1950, p. 193), 'the value is often given to us before the representation'.

The interior, global and complex impression we feel in the presence of another person, or merely when we are thinking about this person, belongs to the same dimension of our experience. It is often easier to become aware of this subtle impression when we meet the person for the very first time, or when we cannot see the other but only feel his/her presence, for example during a nocturnal walk. A person's voice, whether we see him/her or not, also evokes a particular 'felt meaning'.<sup>4</sup>

As many psychotherapists have pointed out, it is at this level that therapy is played out. For a patient can understand his problem conceptually within a few hours, and be capable of explaining it, without at the same time being freed from it. The liberation comes during an experiential process, which is generally far longer, and consists of becoming aware of the 'felt meaning' of his problem, in order to transform it gradually. The felt dimension of the problem will progressively become relaxed, expanded and diluted. It is a process of quasi-corporal understanding and transformation, which more resembles a work of inner distillation, than an arrangement of concepts. Linguistic expression will play a very important role in this process, but only insofar as it contributes to this alchemy, to this profound transformation of the concrete material of our experience. It is interesting to note that many meditation techniques also work, with different means, on this concrete material: their only objective being to transform it in an even deeper and more radical way.<sup>5</sup>

When we begin to discern this dimension of our experience, we soon notice that it constantly accompanies us. For example, if you had to sum up right now in two sentences the three pages that you have just read, you would surely need to access the 'felt meaning'

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[4] We borrow this expression from Eugene Gendlin (1962).

[5] Cf. Welwood (2000) for an analysis of the role of this dimension both in the psychotherapeutic and the meditation process.

corresponding to your understanding of these pages. It is not only a feeling of approval, or of disagreement and discomfort, but a global impression, at the same time blurred, fuzzy, and specific. It could be described as a sort of interior landscape, or as a particular taste. And if you do not have any felt meaning, you will not be able to say anything meaningful or coherent. This is, for example, the case of a speaker who has 'lost the thread' of what he wanted to say: he cannot continue to speak. He tries to recover this thread by directing his attention inside himself, towards the feeling of what he wanted to say, so that the words can spring up again (Gendlin, 1962).

But it is perhaps when conversely we do not find the words, that we become most aware of the correspondent felt meaning. For example, a few minutes ago, I was looking for the word 'to distil'. I had an interior, global sense of it, very difficult to describe, and at the same time very precise, because when a word with a close meaning came to my mind (to 'ferment'), I immediately rejected it.<sup>6</sup>

We find this dimension also in the process of the emergence of an idea, for example in scientific research: very often a new idea, before taking a precise and communicable form, first shows on the surface of consciousness as a blurred and fuzzy sensation, a presentiment, or a direction of thought, an interior line of force which silently guides research, as Einstein once observed:

For all these years there was a feeling of direction, of heading straight for something concrete. It is of course very difficult to express this feeling in words. But I had it in a sort of overview, and in a certain way, visually.<sup>7</sup>

Note that this 'feeling of direction' is not static and fixed, but is transformed over time as a result of the meetings, discussions and readings of the researcher. It is the living (though often pre-reflective) material of his work. For Arnold, an astrophysicist, it is a 'feeling of penetration' of the same nature which is used as an internal criterion to evaluate the relevance of the new idea that is emerging:

It is not just a feeling of coherence, but a feeling of penetration: the impression that the subject is being enriched, that the idea is right in the sense that ... it's difficult to describe, but there is this impression of going further. ... A feeling of depth and immensity, that there was something, a new field, which was opening up, which transcended the

[6] This 'tip-of-the-tongue' experience has been described by James in a famous passage (James, 1890, p. 252).

[7] Einstein's answer to the psychologist Max Wertheimer who questioned him 'in great detail about concrete events in his thoughts having led to the theory of relativity' (Quoted by Holton, 1972).

question I was asking myself, that I was meeting something considerably more vast.<sup>8</sup>

Strangely, authors who referred directly to this dimension, who named it and tried to describe it, are few. In the history of occidental thought, it is probably William James who identified this dimension with the greatest precision. He drew our attention, on many occasions, to the instant at which, before appearing and developing, a thought is preparing, still unarticulated, with no determined sensorial form, in what he called the 'fringe' of consciousness.

One may admit that a good third of our psychic life consists of these rapid premonitory perspective views of schemes of thought not yet articulate. (...) It is in short, the re-instatement of the vague to its proper place in our mental life which I am so anxious to press on the attention (James, 1890, pp. 254–5).

Recently, this unarticulated dimension has also been identified by neurobiologists who have studied corporal roots of thought and emotions, like Francisco Varela (1997) and Antonio Damasio (1999). The latter calls these fleeting feelings (which he considers as the root of self-consciousness) 'background feelings', because although sometimes intense, they are not usually present in the foreground of the mind.

Of the psychotherapists who have encountered this dimension and worked with it, few have given a rigorous phenomenological description of it.<sup>9</sup> However, the pioneering work carried out by Eugene Gendlin proves that it is possible to create concepts and words which allow us to refer to this dimension, and study the different types of functional relationship existing between a felt meaning and its symbolisation.<sup>10</sup> In the same spirit, we would like to show in this article that although blurred and diffuse, this dimension has distinct structural characteristics, and that we gain access to it through the use of specific interior gestures, which can be described precisely.

## 2. How Can One Become Aware of the Source Dimension?

From the experience of encountering a work of art to the emergence of an abstract idea, this dimension of experience seems to underlie many

[8] The quotes without reference, like this one, are extracted of interviews which I led with the interview method above-mentioned (Petitmengin, 2007a).

[9] We use the expression 'phenomenological description' without referring strictly to the Husserlian conceptual background, with the loose meaning of 'description of lived experience'.

[10] Cf. Gendlin (1962) and his numerous articles available on <http://www.focusing.org>

cognitive processes. But most of the time, we have no reflective consciousness of it. Particular circumstances, the mediation of specific interview techniques,<sup>11</sup> and/or special training<sup>12</sup> are necessary in order to become aware of it. The main ‘interior gestures’<sup>13</sup> that we have to make are the following.

### *Stabilizing attention*

First, we have to learn to stabilize our attention. As it is hard to focus for more than a few seconds on a stable external object, it is even more difficult to concentrate on a moving internal object, with undefined outlines, such as a felt meaning.

### *Turning the attention from ‘what’ to ‘how’*

We must also divert our attention from the content of experience, the ‘what’, which usually absorbs it entirely, towards the modes of appearance of this content, the ‘how’. For example, while writing these lines, I am completely absorbed by the discursive content of the ideas that I want to express, but I have very little awareness of the internal processes that enable me to achieve this objective. To gain this awareness, I have to re-direct my attention. I first become aware of the contact of my fingers with the pen, tensions in my back, and then a rapid succession of inner images, judgments, comparisons, light emotions, etc., which constitute my writing activity, and which are usually concealed because my attention is absorbed by the content of the writing. And at the same time, I realise that a few instants earlier, I was not aware of my way of writing, that a significant part of my activity was eluding me. I was aware that I was writing, but in the first degree, ‘in action’ (as Piaget has written [1974]), in an ‘unreflective’ or ‘pre-reflective’ way (to use the vocabulary of Husserl [1913], later adopted by Sartre [1936; 1938] and Ricœur [1949]).

### *Going down through the different strata of the experience*

The exploration of this pre-reflective dimension of our experience reveals different ‘strata’, and awareness of each successive stratum

[11] A presentation of these techniques, their sources, and the validity criteria of the collected descriptions are given in Petitmengin (2007a).

[12] Such as *samatha-vipasyana*, a set of Buddhist meditation techniques which make it possible to learn how to stabilise one’s attention, and then to observe very precisely the flow of one’s subjective experience (cf. for example Wallace, 1999; 2003).

[13] For a detailed description of the internal gestures which enable someone to become aware of the pre-reflective dimension of his subjective experience in general (and not specifically of the ‘source dimension’), the reader can refer to Depraz *et al.* (2003).

becomes progressively more difficult. The felt dimension that we are exploring is a very deep pre-reflective stratum, which most of the time is concealed by the upper (discursive, sensorial and emotional) strata. For example, in the presence of another person, the visual perception we have of his facial expressions, of his movements, the verbal exchange that is set up, the emotional mood it generates in us, and so on, occupy our attention, pulling a veil over the more diffuse feeling experienced in his presence, which is quite specific (very different from one person to another). Similarly, when we contemplate a landscape, the fascination for the visual spectacle masks a more subtle feeling. Or to come back to the experience of writing, the discursive level overshadows the pre-discursive 'thread' that I follow in writing. Curiously, the part of our experience which is the most immediate, closest to ourselves, and most intimate, is also the most difficult to access.

#### *Adopting a specific 'attention position'*

To become aware of this profound dimension, a special kind of 'attention position' is necessary, which is different from the usual mode of attentiveness in terms of its scope, the absence of defined sensorial modality, and its receptive character.

- This mode of attention is not related to a specific sensorial register.

A quotation from James makes this clearer:

Suppose three successive persons say to us: 'Wait!' 'Hark!' 'Look!' Our consciousness is thrown into three quite different attitudes of expectancy, although no definite object is before it in any one of the three cases. Leaving out different actual bodily attitudes, and leaving out the reverberating images of the three words, which are of course diverse, probably no one will deny the existence of a residual conscious affection, a sense of the direction from which an impression is about to come, although no positive impression is yet there. Meanwhile we have no names for the psychoses in question but the names hark, look, and wait. (James, 1890, p. 251)

The process of becoming aware of the source dimension also requires a specific 'attitude of expectancy', but not sensorially determined, not truly auditory, nor visual, nor tactile. Several of the interviewees described this opening of the attention as being linked to a shifting or sliding of the zone which is usually perceived as the centre of attention towards the back of the skull, or from the head to the body.

- Unlike focused attention, which is concentrated on a particular content, this mode of attention is panoramic, peripheral, 'floating', 'holistic', 'lateral' (these are the adjectives most commonly used to



describe it). This diffuse attention is however very fine, and sensitive to the most subtle discontinuities.

- This attention mode is also described as being receptive, and non-voluntary: it is not a question of stretching out towards the source dimension to grasp and fix it, but of making oneself available to it, of welcoming it in, of allowing oneself to be impregnated, or of being in tune with it. It is rather like viewing a 3-D image: for the motif to appear in all its depth and transparency, nothing must be forced; one must simply put oneself into the required position of receptivity and then wait. One of the interviewees describes this receptive attention in these words:

Suddenly, I felt what it was actually to see. To see isn't casting your gaze towards something, projecting it, holding it out, but really it's letting the thing imprint itself in you. You are completely passive, and you let the color, the landscape, come to you. You aren't going to look for it, you're going to gather it in. You're there and you receive it. And you have the impression that the color or the landscape imprints, imprints inside you. (Monique)

When we begin to become aware of the source dimension of our experience, and to know how to tune our attention to this wavelength, we realise that it is always present, and that we can turn our attention towards it at any moment. We identify it increasingly rapidly in all areas of our existence. To be more precise, we identify many different variations of this dimension, which nevertheless have common characteristics.

### 3. Structural Characteristics of the Source Dimension

A felt meaning should not be confused with the 'background' (the 'horizon', the 'margin') of a perception: when we focus our attention on a given object, we discern at the same time in a fuzzy manner the background — indistinct shapes and colours — on which it stands. We need only to direct our attention to another element in this background to discern it distinctly, itself surrounded by its own background. But a felt meaning, even when one directs one's attention to it, remains fuzzy.

#### 3.1 Characteristics of scale

##### *Degree of precision*

A felt meaning is generally blurred and fuzzy. But blurred and fuzzy does not mean fleeting. Although generally associated in our visual

experience — the perception of an object that quickly crosses our visual field is often fuzzy — these two features (the blurred and the fleeting) are dissociated in the case of a felt meaning: a felt meaning may persist for a long period without losing its fuzzy character (Mangan, 2001, p. 27).

#### *Degree of intensity*

Although fuzzy, a felt meaning may be very intense. Although these two characteristics are often dissociated in our experience, they may be associated in the case of a felt meaning.

#### *Degree of specificity*

Although fuzzy, a felt meaning is generally specific, i.e. peculiar to a particular situation (it cannot be confused with any other). As we have already noted, the felt meaning I have of one person is quite different from that which I have of another, and the felt meaning when I look for a word expressing an idea is quite different from one idea to another:

Has the reader never asked himself what kind of a mental fact is his *intention of saying a thing* before he has said it? It is an entirely definite intention, distinct from all other intentions, an absolutely distinct state of consciousness, therefore; and yet how much of it consists of definite sensorial images, either of words or of things? Hardly anything! (James, 1890, p. 253)

However, some felt meanings like feelings of rightness or wrongness, the feeling of knowing, or the feeling of familiarity, seem less specific, as a similar sensation may occur in a great number of different circumstances. The delivered message is nevertheless very precise: ‘encountered before’, ‘just’ (Mangan, 2001, p. 10). Further first person investigations would enable us to verify if these felt meanings are really generic, or groups of similar felt meanings with subtle variations from one instance to another.

### *3.2 Sensorial modalities*

The analysis of the descriptions we have gathered demonstrates that the vocabulary used to describe the ‘stuff’ of felt meanings often calls simultaneously on several sensorial registers: the visual (shape, shadow, fuzzy, etc.), the kinesic and the tactile (vibration, pulsation, pressure, density, weight, texture, temperature, etc.), the auditory (echo, resonance, rhythm, etc.), and even the olfactory or the gustative.

Very well known descriptions of felt meanings confirm this multi-sensorial character. For example, the ‘feeling of direction’ that led

Einstein to the theory of relativity seems both kinesic and visual. Mozart's strategy of composition seemed to intimately merge the auditive, the kinesic, the visual and even the gustative (Hocquard, 1958; Dilts, 1994). This multi-sensoriality characterises also the subtle internal sensations that the psychoanalyst Theodor Reik listened to with his 'third ear', sometimes described as visual ('nuances and fleeing psychic shadows'), auditory ('almost imperceptible half-tones'), and tactile or kinesic ('little incoherencies, slight irregularities that weren't visible but were perceptible to touch as when a hand slides carefully and softly over a fabric', 'tiny subterranean variations') (Reik, 1948, pp. 289, 183, 438).

This absence of specific sensorial modality has been termed 'non-sensory' in that 'any experience that occurs in more than one sensory mode is non-sensory' (Mangan, 2001, p. 7). In our view this term is inappropriate, for although the original perception does not relate to one of our five senses in particular, it is felt bodily, and sometimes very intensely (Woody, 2001, p. 2). How can we name this experiential characteristic? The term 'synaesthetic' (made up of a simultaneity of sensations of different modes) does not seem appropriate to us either, as in a synaesthesia: (1) the sensation modes simultaneously perceived are precisely identified, (2) each of these feelings is usually very precise (Harrison and Baron-Cohen, 2001), whereas a felt meaning is not only blurred and fuzzy, but does not relate to a particular sensorial register. And yet it has *something* of an image or a sound, since the descriptions using terms borrowed from these different registers do not seem totally incongruous.

A careful observation shows that a felt meaning has precise sensorial submodalities — essentially form, intensity, rhythm and movement — which have the common characteristics of being 'transmodal', i.e. they are not specific to a particular sense, but can be transposed from one sense to another (unlike for example temperature and texture which are specific to touch, or volume which is specific to hearing). Plato (*Theaetetus*, 185a–186a) and Aristotle (*On the soul*, II, 6, 418 § 12 and § 18–20) had already identified these characteristics, which they called 'common sensibles'.

More recently, this transmodal dimension of experience has been highlighted by the highly innovative work carried out by Daniel Stern (1985; 1989) on the subjective experience of babies. From very detailed observations of mother/child interactions, completed by 'micro-analytic' interviews with mothers, Stern concludes that the world the child experiences is not a world of images, sounds and tactile sensations, but a world of forms, movements, intensities and

rhythms, in other words a world of transmodal qualities, which can be transposed from one mode to another, and which he calls *vitality affects* (distinct from categorial — or discrete — affects like happiness, sadness, fear, anger, disgust, surprise, and shame).

### 3.3 *Dynamic characteristics*

#### *Temporal variations*

A felt meaning may be extremely fleeting or on the contrary possess a certain persistence,<sup>14</sup> such as the feeling experienced while contemplating a painting, or that which accompanies the slow emergence of a memory, or Einstein's 'feeling of direction', which had guided his research for years.

#### *Rhythmic and gestural character*

A 'felt meaning', a 'vitality affect', is not solid and static, but has an internal dynamic, it is a subtle 'interior movement'. It is for example the specific energy that exudes from Jean when he gets up from his chair, or shakes hand with me, subtly but clearly different from the way Nathalie gets up, or shakes hands. It is the specific dynamic which emanates from the form, gradient, thickness and rhythm of hand writing, very different from one person to another. It is this subtle dynamic dimension of experience (and not categorial affects) that the composer, the choreographer, the poet or the painter tries to express. 'Forms of growth and of attenuation, flowing and stowing, conflict and resolution, speed, arrest, terrific excitement, calm, subtle activation and dreamy lapses.' This is how Suzanne Langer (1953, p. 27) described these subtle movements, the very stuff our experience (that she named 'felt life'), not accessible according to her by means of introspection, but through a work of art, which is a direct reflection of it.

It is important to draw a distinction between the 'micro-movements', texture of the felt dimension, and the 'gestures' that enable us to become aware of it. The 'gestures' are active, the micro-movements are passive. The function of the former is to bring us in the interior disposition required to become aware of the passive emergence of the latter.<sup>15</sup>

[14] E. Norman (2001) proposes to distinguish a 'fleeting fringe' and a 'frozen fringe'.

[15] Here we come up against the poverty of the vocabulary available to us to describe our subjective experience, and a fortiori its source dimension. With E. Gendlin, we think that this difficulty is not inherent to language, but due to the fact that this dimension has been little explored in our culture. We could gradually enrich our language with new descriptive categories enabling us to refer precisely to this experience.

As Stern shows, it is this world of subtle dynamic modifications of intensity and rhythm that the infant experiences: he doesn't perceive the acts as such, as adults do (reaching for the baby's bottle, unfolding the diaper), but the vitality affects bound to these acts (how his mother holds him, takes the bottle, folds the diaper, combs her own or his hair). These rhythms also enable the 'affect attunement' between mother and child.<sup>16</sup> From moment to moment, in a pre-reflective way, mother and child attune their internal rhythms: for example, a mother will reply to the babbling of her baby with a caress of the same intensity and the same rhythm. This rhythmic synchronization, which enables the resonance or tuning of two interior universes, is the basis of affective intersubjectivity.

Stern's research led him to the conclusion that the dynamic and transmodal world that the small child experiences does not correspond to a stage of his development, which is then abandoned to make way for other modes of functioning. On the contrary, this stratum of experience remains active throughout life,<sup>17</sup> although generally below the threshold of awareness. Beneath the perceptions, emotions, thoughts and actions that constitute our conscious experience, this silent stratum is always with us, it is the very stuff of our experience.

This global subjective world of emerging organization is and remains the fundamental domain of human subjectivity. It operates out of awareness as the experiential matrix from which thoughts and perceived forms and identifiable acts and verbalized feelings will later arise. It also acts as the source for ongoing affective appraisals of events. Finally, it is the ultimate reservoir that can be dipped into for all creative experience (Stern, 1985, p. 67).

Even abstract thought seems to be anchored in this transmodal and dynamic dimension. As we saw, an idea often emerges as a direction, a force, a rhythm, a motif, an interior movement which becomes more and more precise. Even when the idea has been formalised, this interior movement still exists, it is there that this idea finds meaning and substance. Lise (an epistemologist) describes in this way the essential movement associated with the idea that she is in the process of developing:

This idea, if you like ... it has the consistency, the texture, the movement of an opening. I've noticed that I often make this gesture (*opening*

[16] Stern distinguishes this affect attunement from simple imitation, on which most current research is focused. Imitation relates to exterior behaviour, whereas attunement refers to an internal state.

[17] Stern replaces the traditional stage model, developed for example by Piaget (1954), by a layered model.

*fingers*) to express my idea, because that's it, it's something like that. That means: there's something pfff... which is spreading out, which is spreading out.

Such descriptions bring 'first person' confirmation of the hypothesis of corporeal anchoring of abstract thought, which was formulated independently but in a very similar way by Lakoff and Johnson, and more than half a century before that, by the French anthropologist Marcel Jousse.<sup>18</sup> According to this hypothesis, our abstract ideas (even as essential as subject, time, and causality) are nothing but the metaphorical transposition of concrete gestures, and only have meaning through the gestures which underlie them. 'What you call "abstract ideas" are simply transpositions of gestures into words whose roots you have forgotten. ... We think through all the fibres of our body' (Jousse, 1938). For Lakoff and Johnson, these concrete gestures are transmodal sensory-motor schemata linked to the structure of our body: for example, the schemata *source-path-goal*, *balance*, *interior-exterior*, *figure-background*, *container-content*, *centre-periphery*... For Jousse, these gestures are the movements, i.e. the rhythm of the universe, which we incorporate, and then re-enact throughout our life: the flight of a bird, the running of an animal, the movement of foliage, light or water... movements of infinite diversity, which are often very subtle and barely perceptible. For Jousse, as for Lakoff and Johnson, it is in these gestural, pre-discursive, embodied structures of our experience that meaning is to be found: not only linguistic meaning, but *meaning* in its wider sense.<sup>19</sup>

Finally, let us add that coverbal gestures, which very often accompany verbal expression, are a sort of open window to this transmodal, gestural dimension. Gestures of balance, swinging, expansion, looping, flowing, cutting, spurting out, tightening, moving in or out of planes etc. are direct expressions of the internal gestures that underlie the speaker's ideas. A number of 'third person' observations confirm this hypothesis. For example, the observations that gestures precede the verbalisation of the referent (Calbris, 2001), and that the more elaborate and complex the verbal message, the denser the gestural activity that accompanies it (Rimé, 1984; McNeil, 1992), confirm that coverbal gestures are the direct expression of a pre-discursive gestural

[18] Johnson and Lakoff have arrived at this conclusion by studying the metaphors used in everyday English language and in Western philosophical language (Lakoff and Johnson, 1980; 1999; Johnson, 1987; 1991). Jousse too has relied on a study of metaphors, but also on a study of the roots of Indo-European languages, on the observation of coverbal gestures in oral traditions, and of mimesis in the animal and the child (Jousse, 1974).

[19] See for example Johnson's exploration of musical meaning in Johnson (1998).

meaning. The fact that gestures occur even when the listener cannot see them (Rimé, 1984; Iverson & Goldin-Meadow, 1998) shows that their function is not to transmit information to a partner, but that they are linked to an internal process of accessing meaning. The fact that even blind people make gestures (Iverson & Goldin-Meadow, 1998) confirms that coverbal gestures are not an imitation of exterior gestures, but the expression of interior gestures. It also confirms that this interior experience is not visual, but stems from a more profound, more primitive, transmodal experience to which blind people have access.

### 3.4 'Spatial' characteristics

#### *Loosening of the interior/exterior frontier*

A felt meaning may have a precise location (chest, stomach, head) inside the body. But most of the time, the transmodality of the experience is accompanied by a certain permeability of the border usually felt between the interior and exterior spaces. We sometimes have this kind of experience when we contemplate a painting: it generates inside us a world of fleeting impressions of intensity, contrast and resonance which are neither objective nor subjective. This experience is also encountered when one listens to music:

I feel music in a space which is neither the bodily space nor the extra-bodily space, a different quality of space. There is no separation between what is exterior to me and what is interior (Gérôme).

Such a feeling of permeability between the inner and outer world, which seems to be related to a kind of rhythmic tuning between them, also happens in our intersubjective relationships. For example, it has been described by several psychotherapists as characteristic of some privileged moments during the therapeutic cure:

It is as if I had extended myself not only into the person, but in the volume of air that is in the room. ... One has the impression to have created a unity between the patient, oneself and the space where we are (Alain, psychotherapist).

It is as if all of a sudden we were breathing together. As if, at a given moment, on a rhythmic level, we were one and the same person (Sylvie, psychoanalyst).

This sensation of both permeability and synchronisation may also be felt in contact with nature:

In such moments, there are no longer any barriers between me and things. It is as though I no longer had a skin. For example, that poplar

over there, it is as though something was radiating from it, a quivering, a diffuse light, a very quiet and very fine sound, which comes right up to me and touches me in an indescribable way. Everything becomes incredibly touching. It is as though the space between things became denser, more luminous, more vibrant, and as though there was nothing else except this space (Lara).

Let us also mention the testimony of Marcel Jousse, for whom our body, like a ‘flexible and living mirror’ (1933), reverberates with the rhythms of the animate and inanimate beings of the world

I can sense very well *inside myself*, in my trunk, the river flowing, or the poplar standing up straight towards the sky, or the poplar swaying, on the banks of the Sarthe, when the wind is blowing hard. (...) To tell the truth, I cannot *see* the poplar soaring. I cannot *see* the river flowing. I feel the river flowing in me. I feel the poplar standing up straight (Jousse, 1938).

### *Transformation of the feeling of identity*

Such a feeling of permeability is often accompanied by a transformation of the feeling of individual identity: the feeling of being a distinctive ‘self’ becomes ‘lighter’ and even disappears. Expert practitioners of *samatha-vipasyana* meditation describe such an instant of lack of differentiation at the threshold of a perception: the emergence of which is characterised by an initial instant, very rapid and usually completely pre-reflective, where the internal world and external world, the subject and object, are still indistinct. This instant is easier to recognise when you are surprised, or when you are awakening, or when you are very relaxed, for example while walking in the forest. A sound occurs, and for an instant, you do not know who you are, where you are, you do not even know that it is a *sound*.

This loosening or even disappearance of the feeling of individual identity, is very clear in the descriptions we collected (Petitmengin, 1999 and 2001) of the unexpected emergence of an idea that we usually call an intuition (the solution to a problem, a scientific idea, a therapeutic insight, a creative intuition). All these descriptions mention a feeling of an absence of control: ‘It happens to me’, ‘It doesn’t depend on me’, ‘It’s given to me’, ‘It escapes from me’...

In these instants, the ‘sense of agency’, i.e. ‘the sense that I am the one who is generating a certain idea in my stream of consciousness’ (Gallagher, 2000, p. 15) is altered. This seems to be confirmed by an analysis of the linguistic structures used to describe the experience. Indeed, the active form is often replaced by a more passive form. The person describing his or her experience does not say ‘*I have* an idea, *I see* an image’, but ‘an idea *is coming* to me, an image *appears* to me’.



The 'sense of ownership', i.e. the feeling that this idea is *my* idea, also seems altered, as the absence in many descriptions of the personal pronoun 'I' confirms. The person does not even say 'an idea is coming *to me*, an image appears *to me*', but: '*there is* an idea, *there is* an image.' The experience is not felt as being immediately *mine*, as being *my* experience, it is not felt as *personal*. At the same time, the idea, or the sensation, emerges in a space which is neither subjective nor objective.

We notice that these experiences, where the feeling of being a distinct 'I' is absent, seem close to what James called 'pure experience' or 'sciousness', i.e. consciousness without consciousness of a self, which was for him not only a reality, but the *prime* reality (James, 1890; 1904; 1905).<sup>20</sup>

To describe this experiential dimension where the distinctions inside/outside, subject/object are loose or even absent, we can no longer talk of 'subjective' experience, 'interior' gestures, or 'bodily' sensations. Even the adjective 'deep' must be handled with precautions, because it suggests the existence of a delimited, distinct entity (a self or a body) including different strata or levels. As D. Galin notices, in the domain of subjective experience, and especially of 'fringe' experience, 'metaphorical language often carries unwanted connotations that can be misleading' (Galín, 1994, p. 381). Here again, we lack vocabulary. But what stops us from creating new words?

### *Felt space*

Different felt senses, with their own extensions and temporalities, may overlap in our experience. Fleeting felt senses are thus perceived in the background of a more stable intimate 'space' or 'landscape' that we could call 'felt space'. The quality of this felt space, its atmosphere, texture, extent, depth, density, and luminosity, changes as time goes by. On some days, at some periods in our lives, it may be open, vast, fluid, light, deep, luminous. And on other days, or at other periods, it can be cramped, heavy, flat, faded, dried up or empty.

Here are the descriptions of three very different felt spaces:

Time to come ... flowed through his mind, transparent and cold, nourishing his sadness but without causing him any intolerable pain. But that inner future, that colourless, free-flowing stream, was suddenly convulsed by a single remark of Odette which, penetrating Swann's defences, immobilise it like a block of ice, congealed its fluidity, froze it altogether; and Swann felt himself suddenly filled with an enormous

[20] Cf. Bricklin (2003) for an analysis of the links between James's sciousness and his radical empiricism.

and infrangible mass which pressed on the inner walls on his being until it almost burst asunder (Proust, *Swann's Way*, p. 505).

During all this period (of mourning), my interior space was reduced, in the middle of my chest, to a blade of suffering that the least movement was intensifying (Joëlle).

He evoked the memory of the hour, in this other southern garden (Capri), where there was, outside and inside of him, and putting one in tune with the other, a bird call which, in a way, did not break at the frontier of the body and reunited both sides in a single uninterrupted space where only remained, mysteriously protected, a single place, of the purest and most profound awareness. At that moment, he closed his eyes so as not to be troubled in such a generous experience by the contour of his body; and from all sides infinity infused itself into him, in such a familiar way that he thought he could feel that the stars that had arrived in the meantime landed lightly in his breast (Rilke, 1966).

#### 4. Internal Gestures for Accessing the Source Dimension

As we saw in section 2, particular gestures enable us to *become aware* of the source dimension of our experience, which is usually pre-reflective. But the micro-description of even very ordinary cognitive processes, like the process of verbal expression, shows that we may also effect, moment after moment, but usually in a *pre-reflective* way, very precise interior gestures to *come into contact* with the felt dimension of our experience and work with it. Let us take a few examples.

##### 4.1 *The process of emergence and maturation of an idea*

An idea (a new scientific idea, an artistic intuition, the solution to a personal or professional problem) sometimes emerges to consciousness all at once in a precise, complete form. But most often it first shows through the surface of consciousness as a blurred and fuzzy sensation, an orientation of thought. This felt meaning does not indicate that something else, a thought, is about to emerge, but the thought unfolds from it, is a refinement of it. Distinct gestures will either halt the process of maturation of the idea, or accompany it to its full term.

The first gesture consists of immediately seeking to classify the nascent idea into a known category, to interpret it and put it into words, all of which have the effect of stopping its evolution and freezing it.

The second possible gesture consists of remaining in contact with the obscure and elusive felt meaning which is the germ of the idea, and allowing it gradually to become more precise, on its own, without forcing it, allowing time to do its work. And patiently letting it ripen and open out, deep inside oneself. As Roland, an astrophysicist, says:

‘It was in a way *contemplating* one’s own development of this idea’ (from Petitmengin-Peugeot 1999, p. 72).

Some of the interviewed subjects describe subtle interior criteria which enable them to verify that the maturing process of the felt meaning has come to its term, and eventually if it is ready to be expressed.

#### 4.2 *The process of expressing*<sup>21</sup>

All through the process of expression, whether it is verbal, written, pictorial or musical, it is the felt dimension which acts as a guiding thread. Four main gestures enabling the subject to relate to it<sup>22</sup> have been identified.

##### 4.2.1 *Coming into contact with the felt meaning*

The first gesture consists of coming into contact with the felt meaning to be expressed. This gesture is essential in the process of verbal expression, although it is often concealed by the spontaneity and rapidity of expression. For example, to tell a story, it is essential for the storyteller to rediscover in himself the ‘landscape’ of the story, i.e. not only the overall atmosphere of the story, but the ‘milestones’ which form its points of articulation, the felt meanings that will guide him throughout the story. To describe an abstract idea, the orator or the writer must rediscover, behind the word that he has perhaps used up to now to refer to his idea, ‘that’ which he wants to say, which has not yet been said, this specific movement, this living and vibrating thing that is his idea.

This coming into contact with the non-verbal dimension is particularly well demonstrated in the process of translation. A close observation of this process shows that, far from being an operation of transcoding two languages (consisting of finding in one language the words and grammatical structures corresponding to those of the other language), it unfolds in three stages: listening to or reading the original speech — de-verbalising the units of meaning — and expressing these units in a new discourse. A good translator does not translate *words*, but ‘makes a detour’ via the non verbal *meaning* which underlies them. ‘If you want to be understood — said Danuta Seleskovitch, the director of the Ecole Supérieure d’Interprètes et de Traducteurs de

[21] This section is very much inspired by Gendlin’s detailed descriptions of this process.

[22] Let’s notice that the interior gestures which permit the verbal description of a felt meaning are subtly but clearly different from those which permit the expression *from* it. Description, unlike expression, implies the awareness of the felt meaning, and the detour via the process of becoming aware (that we described in the second section of this article). Here we’ll only describe the process of *expression*.

Paris — take as your point of departure the idea you have grasped and not the other language' (Seleskovitch and Lederer, 2001, p. 73).

When words rely on verbal memory alone, without contact with their gestural and deep meaning, they are empty, disembodied. A set of subjective criteria (which are usually pre-reflective) enable the speaker or the writer to verify that he is tuned in to the felt dimension of his experience. An 'embodied utterance position' (Vermersch, 1994) may also be recognised by a set of objective criteria, as the direction of the eyes, the presence of co-verbal gestures, of specific context indicators (place and time), the use of the present tense, etc.

In the visual arts, the 'detour' via the felt meaning is also essential. For example, it is an interior state, a particular atmosphere that Anne-Marie, a painter we interviewed, tries to convey on the canvas using form, space and colour. Throughout her work, she uses the subtle variations of this feeling, to which she remains acutely attentive instant after instant, as an interior reference for evaluating the quality of her painting.

This testimony confirms Merleau-Ponty's analyses of the work of the modern painter, through the example of Cézanne. For Cézanne, to paint a landscape does not consist of trying to reproduce as accurately as possible the sight that presents itself to his *vision*, thanks to skilful pictorial processes which make it possible to give the illusion of depth, volume, and different forms of light and texture, but of suggesting the primordial, transmodal experience of his encounter with this landscape. He tries 'to make us *see* how it *touches* us. [...] The painter reworks and converts precisely into a visible object that which without him would remain enclosed in the separate life of each consciousness: the vibration of appearances which is the cradle of things' (Merleau-Ponty, 1948 p. 33). 'What I try to translate for you — Cézanne said — is more mysterious, is entangled at the roots of being, at the impalpable source of sensations' (Gasquet, 2002, p. 242). Before painting the landscape, he contemplated it at length, motionless, with his eyes dilated. He became impregnated with it, he 'germinated' with it, trying to seize its constitution 'as a nascent organism' (Merleau-Ponty, 1948, p. 32), to detect its essential movement, which he called its 'motif'. Then it was this motif that he tried to translate on the immobile canvas.

#### 4.2.2 *Transposing the felt meaning*

The initial transmodal feeling is then transposed under a specific — visual, verbal or musical — form. It is its transmodality (i.e. the

‘common sensibles’ that characterize it) that seems to enable this. For example Cézanne used the transmodality of shapes and contrasts of intensity in order to transpose onto the canvas the motif, the line of force, the peculiar rhythm of the landscape. For Walt Disney, animation did not consist of copying as precisely as possible the outside, visual aspect, of a character, but to grasp the personality, the essence of this character, and then to use the transmodality of movement to transpose this ‘vitality affect’ as animated cartoons (Dilts, 1994).

#### *4.2.3 Comparing the expression with the felt meaning*

All through the process, it is the confrontation with the felt meaning which allows the pertinence of the expression to be evaluated. For example, you want to express an idea that germinates in you, and a phrase offers itself to you. But when you compare it with this something inside yourself that has not yet been said, you realise that it is not appropriate, and you reject it. No, ‘this something that has not yet been said’ is more precise. It is this inside you that knows what must be said, and knows that this phrase does not precisely formulate it. Inadequate words may even make you lose this ‘something’, the felt meaning of your idea. Instead of letting inadequate words make you lose contact with it, it is therefore preferable to pronounce or write phrases which are strange, but which say nothing except what you want to say.<sup>23</sup>

#### *4.2.4 Transformation of the felt meaning*

What becomes of the felt meaning once the right words have been found to express it? It does not disappear, leaving its place to words, as if it was finding its accomplishment, and true existence in them. But it becomes more intense, more precise. Expression not only makes it more precise, but makes it evolve, enabling us to discover new aspects of it. The quality of the situation, the problem, the idea or the interior landscape associated with it, undergoes a metamorphosis. This transformation is particularly noticeable in the therapeutic process, where it has been observed and described in detail by Gendlin (1962; 1996). But we also find it in other fields, such as the philosophic or the scientific fields: words help the felt meaning of the idea, the essential movement that underlies it, to become more precise and to be deployed.

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[23] This process is described in detail by E. Gendlin, for example in ‘Introduction to thinking at the edge’ and ‘Making concepts from experience’ (<http://www.focusing.org>).

It is towards this felt meaning that I turn to reunify my thought when it becomes dispersed. This felt meaning is very elusive. Words enable me to move towards greater precision and greater finesse. But what is becoming more precise and finer? It is this felt meaning that is beneath the words (Lise, philosopher).

Once expressed, the felt meaning continues its underground life. It remains the fluid and silent stuff where words take on a meaning, and without which there are only sounds.

Expressing in a living, embodied way, therefore means coming into contact with the dynamic and transmodal dimension of our experience and remaining from instant to instant totally attentive to its subtle variations. And conversely, an actual understanding means coming into contact with this source dimension beneath expression, thanks to specific gestures (similar to the translator's when he is deverbaling) that have not yet been widely studied.

## 5. Interpretative Hypotheses and Lines of Research

The description of the felt dimension and of the gestures which enable us to relate to it shows that it plays an essential role in our cognitive activity. From these descriptions, we draw the following interpretative hypotheses. These are not conclusions but working hypotheses, which seem as indispensable to the science of consciousness as to experimental sciences for guiding research.

The descriptions that we have collected from adults seem to confirm Stern's conclusion that this transmodal, gestural and permeable stratum does not correspond to a stage of the child's development, which he would have to abandon in order to discover the 'true reality' of clear and distinct ideas, but that it underlies our experience throughout our existence. In what sense does it *underlie* our existence?

First, in the sense that it is *pre-reflective*: as we saw in section 2, we must accomplish specific interior gestures in order to become aware of it.

But also in a dynamic sense of *anteriority*: we hypothesize that the world of differentiated objects, images, emotions and concepts in which our consciousness usually moves, unfolds *from* this fluid and undifferentiated strata. In this perspective, the link between these two dimensions would be a *genetic* one. Indeed, the emergence of a perception, a memory, or an idea, seems to be characterised by an initial phase where the five senses are not yet differentiated, internal and external space are not yet separated, subject and object are still indistinct. This initial phase would be the starting point of a differentiation process the mechanisms of which are still not well known.

Usually, only the result of the later phases of this process appears in our consciousness, under the form of a solid and compartmentalized world. But some interior gestures enable us to lower the threshold of consciousness and the more exercised they are, the earlier and closer to the source awareness arises. In this perspective, the role of these gestures would not be to elicit a particular, exceptional mode of consciousness, but to elicit awareness of the primitive phases of a very ordinary process, which is repeated instant after instant.<sup>24</sup>

But as in child development, these phases are not ‘primitive’, in the sense that they might be abandoned in order to leave their place to other (imaged, discursive or conceptual) modes of functioning. The ‘source’ dimension remains continuously active. It is in this dimension that we find meaning. It is the anchoring in this dimension that embodies thoughts and words, and bring them alive. As Francisco Varela wrote: ‘The concrete<sup>25</sup> is not an approach toward anything: it is how we arrive and where we stay’ (1995, pp. 11–12).

Our hypothesis is thus very different from Mangan’s (2001), which reduces ‘fringe feelings’ to passive markers which have the only function to indicate, to ‘call up’ more articulated, informative and meaningful experience (like the menu bars on a computer screen). In our view, the felt dimension does not indicate something else, but it is the source where differentiated experience originates and takes on a meaning.<sup>26</sup>

In this perspective, how is the differentiation (between interior and exterior, between a ‘subject’ and an ‘object’ pole, and among distinct sensorial modalities), created? We hypothesize that this separation is not ‘given’, but created and sustained moment after moment, by a pre-reflective micro-activity, consisting of tiny gestures of distinction, identification, recognition, categorisation, appreciation, etc. As these gestures are very subtle, they are usually unrecognised. Most Western thinkers have ignored them, except James, for whom the feeling of self is not given, but generated by the ‘palpitating inward life’ of reverberating feelings ‘of welcoming or opposing, appropriating or

[24] This hypothesis may enable us to understand why the practice of meditation develops synaesthesia, as some studies have shown us: in fact, it does not induce synaesthesia, but the *awareness* of a transmodal experience that emerges at every instant. As Walsh suggests in the conclusion of a recent article: ‘The development of synaesthesia in meditators may stem, at least in part, from the heightened perceptual sensitivity to a previously subliminal process’ (Walsh, 2005).

[25] Granted that concrete experience is not limited to the ‘solid’ corporeal and sensorial experience of which we are usually aware.

[26] However, we don’t exclude the fact that some felt meanings might play the role of subtle interior indicators or criteria.

disowning, striving with or against, saying yes or no' (James, 1890, pp. 286–7).

In the course of this process, the emergence of the object and the emergence of the 'self' seem concomitant. The more solid and stable the object becomes, the more 'my' existence confirms itself. This mutual confirmation, which originates in tiny initial gestures, continues, at coarser levels, by means of discursive,<sup>27</sup> conceptual and emotional devices which are more easily accessible to consciousness. It is precisely this process that the Buddhist techniques of *vipasyana* (discernment, insight) aim to observe: how instant after instant, the subjective and the objective poles differentiate each other, while constituting each other.<sup>28</sup>

These hypotheses support, from a first person perspective, a dynamic, enactive view according to which cognition, far from being the representation of a pre-given world, is a process of co-construction of the inside and the outside, the knower and the known, the mind and the world (Varela *et al.*, 1991).<sup>29</sup>

These hypotheses raise notably the following questions:

- How precisely are the microdynamisms which animate the source dimension amplified to give birth to the solid and compartmentalised world in which we habitually move? What are the mechanisms and stages of this process?
- How does 'abstract' thought develop? By which processes can we cut ourselves off from the source dimension, to the extent of forgetting it?
- Does the pre-articulated dimension of our experience, which for the moment is almost a *terra incognita*, have different strata, different degrees of differentiation?
- Just how far is it possible to retrace the source of thought? Does not the stratum we are exploring in this article cover others? Is it not only a doorway towards a dimension that is even more fluid, spacious and open?

Further testing of these hypotheses would require a very fine and delicate description of the pre-reflective micro-dynamic of lived experience. In line with Galin's concern (1994), the designing of precise 'experiential protocols' would enable the identification of the

[27] As the unceasing internal dialogue, recognized as essential in the constitution of the 'narrative self' (Gallagher, 2000).

[28] An introduction to this dynamic perspective in Indian Buddhist thought and bibliographical references, may notably be found in Bitbol (2006) and Petitmengin (2007b).

[29] The question of the relevance of the first person point of view to the theory of enaction, is discussed in Petitmengin (2006).



different types of felt meanings, and the description of their respective phenomenological characteristics and dynamics. This work of micro-description requires the collaboration of researchers and interviewed subjects who are both experts in first person techniques for investigating consciousness. The acquisition of such expertise calls for an important personal investment. It also presupposes lifting, at both the academic and the personal level, the taboo which until now has prevented the researcher from referring to lived experience.

These hypotheses could also open a number of research paths, notably in the neuroscientific, educational and existential domains.

*A key for neuro-phenomenology?*<sup>30</sup>

It seems to us that the possibility of studying in detail the transmodal and rhythmic dimension of lived experience might contribute to reducing the apparently impassable 'gap' which separates it from the neurobiological processes.

For example, 'neuro-dynamic' analysis of cerebral functioning recently carried out suggests that the emergence of a cognitive act is underlain, not by the activation of a particular zone of the brain, but by the transitory synchronisation of the oscillatory activity of distant neurons (Varela *et al.*, 2001). One could use the analogy of an orchestra: suddenly, groups of distant instruments start to play at the same rhythm. Correlating the modulations of these neuro-electric rhythms with the subtle variations of internal rhythms which underlie our conscious experience, and which seem to be situated at the hinge between physical and psychic, would seem to be a promising line of research. Such correlations have already led us to discover, both at the phenomenological and at the neuronal level, a specific state before the onset of an epileptic seizure (Martinerie *et al.*, 1998; Le Van Quyen *et al.*, 2001; Petitmengin, 2005 and Petitmengin *et al.*, 2006).

Moreover, a new category of neurons was discovered a few years ago, 'mirror neurons', so called because of their ability to 'mirror' the activity of someone else, and which have the remarkable characteristic of being multi-modal (both visual and somatosensory, audiovisual, or olfactivo-visual).<sup>31</sup> It seems to us that better 'first person' knowledge of the transmodality and gesturality of the source

[30] The founding idea of the neuro-phenomenological program is 'to marry a disciplined approach to human experience (in the lineage of the continental tradition of Phenomenology) and modern cognitive neuroscience' (Varela, 1996, p. 330).

[31] For example, these neurons are activated in exactly the same way when the person involved performs an action and when he or she sees someone else carry out the same action; or by a pleasant or an unpleasant odour, and by the sight of another person smelling the odour. For a synthesis of this research, see Buccino *et al.* (2004).

dimension would lead to better understanding of the role of these neurons in the complex process of self/other co-determination, the refining of the experimental protocols used to study these neurons, and the interpretation of their results.

The transmodal character of the source experience may also help to understand some unexplained phenomena like blindsight, i.e. residual visual capacities that some blind people have, without being conscious of these capacities (Weiskrantz, 1986). Finally, we might add that while studying the source dimension and the process of differentiation, we are exploring the very origins of the 'gap' which separates the inside from the outside, the subjective from the objective poles.<sup>32</sup>

### *Re-enchanting the classroom?*

If our ideas draw their meaning from the preverbal dimension of our experience, then there is no real understanding which does not attain such depth. Understanding an idea means accessing the felt meaning which is at its source, thanks to specific gestures.

In this perspective, are our teaching methods well adapted? For at present, teaching consists in most cases of transmitting conceptual and discursive contents of knowledge. The intention is to fix a meaning, not to initiate a movement. Which teaching methods, instead of *transmitting* contents, could elicit the gestures which allow access to the source experience that gives these contents coherence and meaning? Such a teaching approach, based more on initiation than transmission, by enabling children and students to come into contact with the depth of their experience, could re-enchant the classroom.

Finally, the space where thoughts are born is at the core of our experience of being human. It is there our relationship to the world is played out, and can thus be transformed. If happiness resides in a particular quality of openness of 'felt space', which interior gestures would free up or make this space more fluid? Rediscovering contact with the source dimension of our experience might considerably transform not only our understanding of cognition, but also our life in the world.

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[32] This idea is detailed in Petitmengin *et al.* (2007).

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