

## 5 – Life, action, thought

An attentive reader will have noticed that we may talk about gravitation and radiation, but it is not physics that we are dealing with.

Physics is concerned with describing and quantifying phenomena and, as centuries of scientific and technical progress have shown, we can understand better and better *how it works* without knowing *what it is*, and even without ever asking ourselves the question.

For our part, we were only interested in the laws of physics to answer a question that could be formulated like this: *What can it be to make it work like this?* "It" designating reality, and "this" referring to the two fundamental laws of physics.

We have proposed an answer to this question in § 1, STRUCTURAL MODEL OF SPACE. And we have endeavoured, in § 2 and 3, to validate it by reconstituting and justifying the fundamental laws of gravitation and radiation.

Thus, laws applicable to primary objects, changes and mechanisms, i.e. to the simplest (least compound) forms of reality, make it possible to find the laws, verified by experience, that govern observable reality, which is extremely compound and complex.

That which we propose to deal with here, LIFE, ACTION and THOUGHT, which are inseparable, is, in a still higher degree, an extraordinarily compound and complex reality.

And we span a few chapters – no less than all *physics* and *chemistry*...

As we did in § 1, we will seek to identify primary, simple mechanisms from which the complex functions associated with life are derived.

But here we do not envisage any way of ensuring the validity of what we are about to propose : indeed, to our knowledge, laws and mechanisms as simple and general as those of gravitation and radiation have not been discovered in the processes of life.

On the other hand, having proposed an answer to the question of the nature of *what is*, we can avoid dealing with it head-on, and mixing it up, with that of *what we can think and know about it*.

## Table of Contents

5 – Life, action, thought.....	35
5.1 – The Mechanism of Life.....	36
5.2 – Capacities of the being.....	38
5.3 – Operations: Thoughts and Movements.....	40
5.3.1 – Critical review.....	44
5.3.2 – Diagrams: Operations Maps.....	48
5.3.3 – Difference in processing between thoughts and movements.....	51
5.4 – Thinking and talking.....	54

## 5.1 – The Mechanism of Life

We have conceived what material objects, bodies are (§ 1.4).

There is no indication that they are alive. If they are not, we will say that they are inert.

An inert body only exists and undergoes changes, it has no desires or **needs**.

A living body has needs – it is to this difference that we will attach ourselves by trying, as far as we can, to extract all the consequences.

If he has needs, it is because he is made up of **parts** that depend on each other – in relation to each other, and to what is not him. And for there to be a relationship, there must be an **exchange**.

Exchanges between parts of the living body require the existence of **internal movement**.

It is the existence of this internal movement that constitutes the first characteristic of life.

In the exchange, one part brings something to another – they do not have the same role. This **differentiation** results in the need that the parts have for each other – and the maintenance of the exchange.

We are talking about a **loop** {**exchange** → **differentiation** → **need** → **exchange**}, and we are not pronouncing on what has begun. Nor for that matter about what is exchanged – or, rather, about the form in which an energy is exchanged.

*Movement and differentiation*: it seems that the **tendencies** that govern life run counter to those that govern space. We have indeed proposed to identify the latter as a tendency to *rest* and a tendency to *uniformity* (§ 1.3).

And just as no material object would exist without the *internal change* of the grains of space, life would not exist without an *internal movement* of material objects.

The living body would thus present itself as a portion of space in which the tendencies of space and the contrary tendencies of life *coexist*, at different scales.

This loop, then... Is it the mechanism of life, or the process of its appearance? Maybe both.

But in order to be able to speak of life, it is necessary that the body has the ability to maintain the functioning of the loop.

The *loop of life* is made possible by the existence of an internal movement, and it allows for the continuation of this movement – as long as there is something to exchange – as long as all the energy available in the body has not been consumed.

In order for the movement not to stop, the living body must therefore **feed itself**, in one form or another.

The internal movement, then, can be sustainably maintained.

The differentiation of the parts of the body, which allows this founding process of life, can lead him to modify their relative positions: he then becomes capable of **movements**, and these movements, if no constraint opposes it, are likely to lead to **displacements**.

Whatever his mode of nutrition, this body (this living body, we will call it *being*) is **sensitive** to what is not itself and from which it feeds his energy. He is sensitive to it, since the presence of this *something that is not him* has an effect on him and conditions the continuation of his life.

He therefore **perceives** something of what is not him. At least (or maybe only) changes or differences (more, or less, energy).

If he is capable of movement, he will move in such a way that the displacement caused by his movements facilitates his feeding.

He will do so, as far as it is possible for him, because if he does not do so, the loop is likely to be interrupted, and life with it – the **primary tendency** proper to life (resulting from the tendencies to movement and differentiation) is indeed to maintain and perpetuate itself.

The process is simple if he has only one type of perception (one criterion, one **sense**). It becomes complicated if he has several senses and if they do not induce the same displacement. What could be called a **hesitation** then appears in the being, based on a comparison of perceptions, at the end of which he will *choose* a direction of movement.

And how does he hesitate?... It can only be through sketches of movements by which he tests the different possibilities of movement. The one he will adopt is a relative optimum, on the scale of his trial and error and his perceptions.

This ideal being (which could have been the primitive being) does not seem to have any reason to die (except by accident) – or to reproduce.

*Except by accident*, we say, it is forgetting starvation. If the primitive being feeds directly on solar energy, how will it survive once night comes?...

The loop we have mentioned is, in a way, a logical mechanism – it has, in the living body, a material reality that we call a **motor**.

To survive a night, this being needs a number of motors greater than the ratio between the length of the night and the duration of a loop. Thus, an internal movement will remain and will be able to resume with renewed vigour in the morning.

Another way of surviving would be to store energy – doesn't it need to multiply the motors for that?...

But there are other sources of energy than that of the sun's rays, starting with the heat stored in material objects.

For such a being feeding directly on energy, life would be relatively simple. But if he feeds on complex bodies (i.e., other beings) in which not everything is useful to him, he must get rid of everything that has not been useful to him for the maintenance of life, if only so as not to be encumbered by them.

The being we are considering here is already far removed from the primitive being, since he is capable of transforming and assimilating the foods of life.

He does not die, we said, and he does not reproduce. But he is changing. Change, in the loop {exchange → differentiation → need → exchange}, is present in exchange as in differentiation: it is at the source of its vital mechanism. The being remains himself while becoming different.

It is through such a process of differentiation that he can evolve and acquire new functions, such as mobility first, then digestion and excretion that we have just mentioned.

*Evolution*, we say, but we are very far from the *evolution of species*, if we limit ourselves to the evolution of a being during its life (ontogeny), to which we have not found any reason to foresee an end.

In the course of a being's life, differentiation is not about the functions of the parts, only about *what they are made of* and *how they are made*.

It would therefore not be the same being who acquires new functions. But he may have split, if only accidentally, or because he has become too large to maintain his unity: the two parts are indeed equally viable, provided they have enough motors.

So, he is divided. There was one being, there are two. Is it the same?... No, of course not: the first is no more. And the other two are his descendants.

The first is no more, his life is over. It may be difficult to admit that he is dead, since he leaves no corpse, but that is nevertheless it.

He leaves a progeny to whom he has ceded all of what he was. He died reproducing on his own.

All of this is simple and practical – we don't operate that way. Neither to reproduce, nor to die – no death without a corpse. The fact is that we are far from being so simple...

It is therefore from one generation to the next that *evolution* (phylogenesis) occurs. First of all, the two descendants are not strictly similar to their parent. Won't one of them end up *learning* to divide and perpetuate the lineage?

In their simplest version, primitive beings could well be reduced to molecular clusters. Solid, therefore, which is conceivable if they feed directly on energy. But, as soon as their feeding mode changes, it seems that they need a liquid support for their internal movement (their internal movements, we should say). And so an envelope to retain this liquid – and also retain what they store.

And then, later, the descendants of these beings will reproduce themselves other than by division (they will only commit to the operation a part of themselves dedicated to this function, and they will survive it) and the questions of growth and maturity will be posed in another way. But this aspect of *evolution* is not what interests us here.

## 5.2 – Capacities of the being

At this stage of our speculative evocation of a very distant past, what can we retain?...

First, that this era is probably over because, supposing that life continues to appear in such ways, there is the greatest chance that other more evolved beings will take it upon themselves to interrupt the process outlined.

Unless, in particular (extreme) environments, these primitive life forms are the only ones that are possible...

And then, that there exist in a being (a living body) changes (we will speak, in a general way, of **operations**), which

### 1 have a cause internal to it

This is not the case for the stone that rolls down the slope, despite the complexity of its trajectory.

True, it wouldn't roll if it didn't have mass, but its mass isn't the cause of its movement – it already had a mass before an unfortunate movement by the walker caused it to lose its balance. It is this movement of the walker that is the cause of the movement of the stone.

A cause is necessarily a change, an operation\*. The rest is circumstances, conditions, a situation...

### 2 are ordered towards a purpose (fit for an end)

The internal movement, maintained by *the loop*, has as its purpose the exchange between the parts, and the maintenance of life. By allowing life, it *inaugurates* the purpose, which does not exist in the inert body.

The effervescent tablet that we drop into a glass of water starts to shake, it rises, it falls, it looks as if it were alive. The cause of these movements is in the chemical reactions between the water and the substance of which it is made. But these reactions will come to an end and the tablet will disappear. Its internal movement was not maintained, and it had no purpose (it was the manufacturer of the tablet who aimed for an effect, and had a purpose).

\* The only exceptions are fundamental phenomena, such as gravitation or energy exchange, which are governed by laws that respond to tendencies in space, and it is in this that these laws are *fundamental* (cf. § 1.5).

On the other hand: *every operation has an effect, and every effect is a change* knows no exceptions.

\* \* \*

1. The primitive being feeding directly on energy may very well not need to move or, therefore, to perform movements. He has one **purpose**: to keep himself alive. He is capable of only one operation: feeding. And he has only one sense: it would be a first stage.

2. The being capable of movement can have the purpose of moving. To feed oneself – this is his **motive** (his reason for acting – to be distinguished from the purpose, which is the end pursued, the desired effect).

If he has only one sense, he is not even capable of hesitating – which would be the first manifestation of a question.

And he deals with sensations. It would be a second stage.

3. The being with several senses is capable of hesitation – of facing what is akin to a question, and of answering it.

But he still deals only with sensations. This would be a third stage.

These beings **contain a representation** of themselves and of what is not them.

What we mean by *representation* is an image, in himself, of a reality. It is a composition of perceptions, a synthesis.

And a representation is susceptible to perception. It is in a way an indirect object of perception.

This capacity for representation is akin to a **spirit** – a completely primitive spirit.

There is nothing to say that these representations require a dedicated organ. They can also consist of an organization of the body. And, if these beings have several senses, their different parts can be of different sensitivities.

4. The being capable of representing a purpose and a motive is therefore capable of abstract representations, and therefore of dealing with **ideas**.

He deals with sensations and ideas – but he does not *know* it, he does not make ideas objects of thought.

He can have a purpose and a motive, and *be aware* of them. We could then say that he *knows* for what purpose he is acting and for what motive, but that he does not *know* that he *knows* it. It may well be that, for this, he will nevertheless need a dedicated organ. This would be a fourth stage.

5. The being capable of **making ideas objects of thought** acquires what we call a capacity for **consciousness** (immediate knowledge of one's own psychic activity).

He can know his purpose and motive, and he is able to know that he knows them, that is, to be conscious of them.

He is able to form **concepts**, to discern causes and effects, to distinguish truth from falsehood, and to **analyze** consciously.

He is capable of consciously dealing with ideas, and of hesitating, before carrying out an operation, in consideration of its justification and its direct and indirect consequences, and, more generally, of hesitating about ideas – that is, of **reflecting**.

It seems to be accepted that only human beings have these capacities. It would be a fifth stage.

These **stages** would be, schematically, those of the evolution of beings considered according to their **capacities**, and more particularly those of their spirits (minds).

So, beings or spirits?... It is to speak of the same living material object. We can distinguish the spirit from the organism. But to say *being, body, organism, spirit*, is to speak of the same reality, it is only the way of looking at it (or what we look at there) that differs.

And can't we consider that a form of **thought** exists in every being with several senses? And that it is in germ in every being (living body)?...

We will speak of **orders** of beings, or orders of spirits, in connection with the five stages which we have just characterized in this schematized version of the *evolution of capacities*. These are orders of capacities (which go hand in hand with complexity orders).

The being, or spirit, of order 3 (third stage), one who has several senses and is therefore able to compare and hesitate, must be able to **stop** at a perception, store it, even if only for a very short time. It is a first form of **memory**. And every being having several senses would be provided with such a memory (without which it would differ little from a being of order 2).

The being, or spirit, of order 5 (fifth stage), who is capable of *making ideas objects of thought*, needs for this memory – in a more developed form. The **generalization** in which the identification of concepts consists is not, indeed, conceivable without memory.

But to form, identify, and distinguish concepts, to be able to process them, it is necessary to identify them, and in one way or another, **name** them.

If he names concepts, it is first *in petto*. The name is, at first, interior and informal.

It is to communicate that he tries to **say**: this is how the first **words** are pronounced.

By speaking words and then **sentences** (they express relationships between concepts), a tool is built to process ideas and concepts. And this tool is shared by the other beings with whom he communicates. **Language** creation is a collective process.

One may be tempted to identify a new loop: man distinguishes ideas, names them. He verbalizes them and shares their use. Men connect ideas in sentences. They enrich language and distinguish ideas better.

{distinguish ideas → name them and verbalize them → enrich language → distinguish ideas}

The existence of such a loop would be the reason why it is not possible to say which one started, language and thought.

Note that we may not hear exactly the same thing through **thought** as when we consider that *thought is in germ in every being*.

It is that there are many forms of thought. And, saying *think*, we can talk about things as different as, in the register of movements, *breathing, walking, building...* but words lack to specify these forms of thought.

### 5.3 – Operations: Thoughts and Movements

We do not attempt to establish laws in life, action or thought; only try to identify criteria and categories.

Therefore, we propose, in the table on the next page, an attempt to **classify the operations (Thoughts and Movements)** of a being equipped with a spirit of order 5, thus capable of *making ideas objects of thought*.

Note that the term *thought* is ambiguous in another aspect: here, it refers to the *action* of thinking and not a representation, a *content*.

**Thinking** is, in general, an internal operation involving concrete or abstract representations and consisting of their processing.

This classification is based on the two-step analysis of an operation:

- **What triggers it**, which can be a perception (p) or a question (q) – and then a choice, or a decision. The perception or question can be conscious (k) or not (nk).
- **The operation itself**, which can
  - be conscious (k) or not be conscious (nk),
  - not have a purpose (0), or have a purpose of which the subject is not conscious (nk) or is conscious (k),
  - not have a motive (0), or have a motive of which the subject is not conscious (nk) or is conscious (k).

**Classification of the types of operation of a being of order 5**

	Triggering		Operation			Thought	Movement
	p/q	nk/k	Op.	purp.	mot.		
1	q	k	k	k	k	Deliberate reflection	Act
2	q	k	k	k	nk	Deliberate reflection	Act
3	q	k	k	k	0	Deliberate reflection	Act
4	q	k	k	nk	k	Deliberate reflection	Action
5	q	k	k	nk	nk	Deliberate reflection	Action
6	q	k	k	nk	0	Deliberate reflection	Action
7	q	k	k	0	k	Observation	Observation
8	q	k	k	0	nk	Observation	Observation
9	q	k	k	0	0	Thought	n.a.
10	q	k	nk	nk	nk	Deliberate reflection	Movement
11	q	k	nk	nk	0	Deliberate reflection	Movement
12	q	k	nk	0	0	Thought or dream	n.a.
13	q	nk	k	k	k	Spontaneous reflection	Act
13bis	q	<i>nk</i>	<i>k</i>	<i>k</i>	<i>k</i>	<b>E4</b>	
14	q	nk	k	k	nk	Spontaneous reflection	Act
15	q	nk	k	k	0	Spontaneous reflection	Act
16	q	nk	k	nk	k	Spontaneous reflection	Action
17	q	nk	k	nk	nk	Spontaneous reflection	Action
18	q	nk	k	nk	0	Spontaneous reflection	Action
19	q	nk	k	0	k	Observation	Observation
20	q	nk	k	0	nk	Observation	Observation
21	q	nk	k	0	0	Thought	Tic
22	q	nk	nk	nk	nk	Spontaneous reflection	Movement
22bis	q	<i>nk</i>	<i>nk</i>	<i>nk</i>	<i>nk</i>	<b>E3</b>	
23	q	nk	nk	nk	0	Spontaneous reflection	Movement
24	q	nk	nk	0	nk	Observation	Observation
25	q	nk	nk	0	0	Dream	Tic
26	p	k	k	nk	nk	Pseudo-reflection	Movement
27	p	k	k	nk	0	Pseudo-reflection	Movement
28	p	k	k	0	0	Thought	Reflex
29	p	k	nk	nk	nk	Pseudo-reflection	Movement
30	p	k	nk	nk	0	Pseudo-reflection	Movement
31	p	k	nk	0	0	Dream	Reflex
32	p	nk	k	0	0	Thought	Reflex
33	p	nk	nk	nk	nk	Permanent fund	Movement
33bis	p	<i>nk</i>	<i>nk</i>	<i>nk</i>	<i>nk</i>	<b>E2</b>	
33ter	p	<i>nk</i>	<i>nk</i>	<i>nk</i>	0	<b>E1</b>	
34	p	nk	nk	0	0	Dream	Reflex

In this table, we have identified **categories**:

- of **Thoughts** (in the broad sense of Operations of the spirit)
  - . reflection
  - . observation
  - . thought (in a restricted sense)
  - . pseudo-reflection
  - . dream
- of **Movements** (in the broad sense of movements of the body or a part of the body)
  - . act (or deed)
  - . action
  - . observation
  - . movement (in a restricted sense)
  - . tic
  - . reflex

And we offer **operations qualifications**

- . **déliberate**: operation triggered by a conscious question
- . **spontaneous**: operation triggered by a non-conscious question or by a perception
- . **impulsive** (relevant to movements): operation triggered by a non-conscious question
- . **instinctive** (relevant to movements): operation triggered by an non-conscious question, and carried out without conscious purpose or motive
- . **automatic**: operation triggered by a perception, with a non-conscious purpose
- . **underground** (relevant to operations of the spirit): non-conscious operation, but it may be the continuation of an operation that was conscious
- . **vague** (relevant to operations of the spirit): operation with an non-conscious purpose or motive
- . **gratuitous**: operation without motive, *for nothing*

### Categories of Spirit Operations

**Reflection** is an operation triggered by a question (a decision or a choice: to carry out, or not, the operation) and having a purpose.

It is **deliberate** if the question was conscious (lines 1 to 6, 10, 11), or **spontaneous** otherwise (lines 13 to 18, 22, 23).

It is **underground** if it occurs without the subject's knowledge (non-conscious operation), as when his mind continues to work while he is busy with something else (lines 10, 11, 22, 23).

It is **vague** if the consciousness of the purpose or motive is not complete (lines 2, 4, 5, 6, 10, 11, 14, 16, 17, 18, 22, 23).

It is **gratuitous** if there is no motive (lines 3, 6, 11, 15, 18, 23).

It cannot, however, be automatic.

In **observation**, there is also a question, but there is no purpose: the subject is open, more or less broadly, to what he will perceive (whatever the senses used). It accommodates perceptions or ideas. We also speak, for example, depending on what the subject is focusing his attention on and his motive, of *looking, meditating, contemplating...*

On the other hand, he has a motive, which justifies his decision or his choice.

It can be **deliberate** (lines 7, 8) or **spontaneous** (lines 19, 20, 24); more or less **vague** (lines 8, 20, 24); and even **underground** if the subject is not conscious of observing (line 24).



If the operation, whether triggered by a question or by a perception, has neither purpose nor motive (unlike reflection and observation), we speak of **thought** (in a restricted sense).

The operation is **gratuitous**. It can be **deliberate** (line 9) or **spontaneous** (lines 21, 28, 32). And it can be **underground** (line 12), thus resembling a dream.

From this type of operation, if triggered by a perception, the **impression** would arise.

A **dream** is a non-conscious operation without a purpose or motive, triggered by a question or by a perception, conscious or not.

It is **gratuitous**, **underground** and **spontaneous** (lines 25, 31, 34). But it can be related to thought if it has been triggered by a conscious question (line 12).

If the operation has a purpose and was not triggered by a question, but by a conscious perception, there was no decision or choice. We then speak of **pseudo-reflection**.

It is **spontaneous**, **automatic**, and **vague**. And it can be **gratuitous** (lines 27, 30) or **underground** (lines 29, 30). **Intuition** would fall under this type of operation.

There remains one category, that of **spontaneous**, **automatic**, **underground** and **vague** operations, that is to say, non-conscious, triggered by a non-conscious perception, and with a non-conscious purpose and motive. They escape the subject, he has no hold over them, and they could constitute a **permanent fund of the operations of the spirit** (line 33).

### Categories of Movements

**Acts** are operations with a conscious purpose.

An act is **deliberate** (lines 1, 2, 3) or **impulsive** (lines 13, 14, 15), it can be **gratuitous** (lines 3, 15). But it cannot be automatic, nor instinctive.

Acts are necessarily triggered by a question, conscious or not, and carried out consciously.

**Actions**, too, are necessarily triggered by a question, and carried out consciously (note that the word is commonly used in a broad sense, including acts).

But their purpose is not conscious (or of a lesser degree of consciousness).

They are **deliberate** (lines 10, 11) or **impulsive** (lines 16, 17, 18), and can be **gratuitous** (lines 6, 18). They can be **instinctive** (line 17), but cannot be automatic.

We find **observation**, identified above as an Operation of the spirit: it is clearly a Movement when it comes to sight and eye movement. It answers a question, it has no purpose, but it has a motive (lines 7, 8, 19, 20, 24).

If it had a purpose, it could be an act (lines 1, 2, 13, 14) or an action (lines 4, 5, 16, 17).

Observation is therefore situated, in a way, at the border between the Operations of the spirit and the Movements.

Note that observation can consist of looking inside (oneself, and this is then an Operation of the spirit) or outside (that which is not oneself).

We call **movements** (in a restrictive sense) those operations whose purpose is not conscious and which are performed non-consciously. And we assimilate to them, if they are performed consciously, those operations triggered by a perception.

They are **impulsive** (lines 22, 23) or **spontaneous** (lines 26, 27, 29, 30, 33), but can also be **deliberate** (lines 7, 8). They can be **instinctive** (line 22), **gratuitous** (lines 11, 23, 27, 30) or **automatic** (lines 26, 27, 29, 30, 33).

Movements that are not triggered by a question, but by a non-conscious perception, and that are performed non-consciously (and therefore without conscious purpose or motive – line 33) have a special role in the **maintenance of life**. The subject has no control over them. These movements include secretions, heartbeats and the various forms of internal movement.

A **tic** is a purposeless operation triggered by a question (necessarily non-conscious).

It can be conscious (line 21) or not (line 25). It is **gratuitous** and **impulsive**.

A **reflex** is a purposeless operation triggered by a perception (conscious or not). It can be conscious (lines 28, 32) or not (lines 31, 34). It is **gratuitous** and **spontaneous**.

We consider as **non applicable** Movements (in the broad sense of movement of the body or a part of the body)

- . deliberate without purpose or motive (lines 9, 12).

Would also be **non applicable** operations (Thoughts or Movements)

- . non-conscious triggered by a conscious question, if they have a conscious purpose or motive,
- . non-conscious with a conscious purpose or motive,
- . not triggered by a question, having a conscious purpose or motive.

In spirits (or beings) of an order lower than 5, there is no consciousness in the sense in which we have defined it, and their operations appear in this table as an *exception*. In the absence of consciousness, they may have *awareness* of their purpose or motive: the animal that runs after its prey *is aware* (without being *conscious*) that it is to seize it and eat it.

E4 fourth-order spirit (fourth stage). The subject is able to ask himself a question prior to a movement. He *knows* for what purpose and for what motive he is doing it (line 13 bis).

E3 third-order spirit (third stage). The subject is able to ask himself a question prior to a movement. He *knows* nothing (line 22 bis).

E2 second-order spirit (second stage). The subject reacts to a type of perception, with a purpose and a motive, without being able to ask himself a question (line 33 bis).

E1 first-order (first stage). The subject reacts to a type of perception, with a purpose, without being able to ask himself a question (line 33 ter).

### 5.3.1 – Critical review

Everything in this table, starting with the very principle of a classification, which amounts to simplifying an eminently complex subject, and with this two-step analysis, can be the subject of discussion.

One reason for the difficulty of these considerations is that thought is its own object.

Let us try to see in which directions the classification could be completed (at the risk of becoming very complicated).

- There would be room, of course, to distinguish more **orders of spirit** than the five we have attempted to describe.  
In particular, the appearance of several senses (third stage), by enriching the representations, makes it possible to understand relationships between operations, the first step towards the representation of causes and purposes.  
And we have not detailed the conditions for the appearance of a representation of the exterior and a representation of oneself.
- The binary notation k (conscious) / nk (nonconscious) leaves out all intermediate degrees of consciousness.
- **Voluntary** operations would be those, among **deliberate** operations, which are carried out consciously. And the deliberate character could be graduated, the question which characterizes them not being able to be reduced to *To carry out or not to carry out the operation?*
- Purpose or motive not conscious at the time of the operation may have been **conscious previously**.

- It is possible to perform several operations **simultaneously**. This is clear for two movements. And a reflection with a single question would not be complete. More generally, when we speak of *conscious operation*, we are talking about two associated or simultaneous operations: the operation itself and the subject's knowledge of it.
- An act, an action, and even a movement, are in fact series of operations, successive or simultaneous, which can be qualified differently.
- Every operation is in fact carried out at the end of a more or less long **chain** of operations (of the spirit) at the origin of which there is always a perception.
- The relative simplicity of the classification of types of operations (p. 41) is due to the fact that the table has only two columns for **triggering** (so only one stage of this process is considered), and two columns to qualify the **operation** (only one motive order, while there are others, conscious or unconscious – up to the ultimate motive, survival).
- We have not detailed two qualities of the operations of the spirit:
  - **attention**, which would be a degree of consciousness, notably in observation,
  - **orientation**, which defines the object of the operation, and its width, or precision.
 For example, in observation, the subject can direct his attention to what he perceives or to *what it does to him* (the effects in him of what he perceives: feelings, thoughts, bodily manifestations, etc.). Here are several simultaneous operations of different orders.
- We consider the purpose, which is the desired effect, but we do not discuss the **effect** obtained, which may be different, nor its **consequences**.
- We have not mentioned **intention**. It is the representation of an operation or a desired effect, the purpose, which may differ from the effect obtained. This is also sometimes the term used to describe the motive or the purpose.

The qualifications *automatic*, *spontaneous*, *instinctive*, *spontaneous*, *deliberate* and the corresponding scale apply to both

- the stages of the evolution of beings,
- the operations of human beings (E5, the only ones capable of deliberate operations).

Furthermore, this classification does not address aspects that it nevertheless raises, such as the **responsibility** that the subject may have for his movements, actions or acts, and their effects.

It seems established if a conscious operation has been triggered by a conscious question, and absent if the triggering has not consisted of a question or if there is neither motive nor purpose. In other cases, it would be conceivable if there is a motive or a purpose.

See p 48 the *Responsibility* diagram in which the area of the types of operations falling under responsibility is delimited by solid black lines, and that of the operations not falling under responsibility is delimited by dotted black lines.

More generally, and more fundamentally:

The increase in the order of spirit in a being is permitted by that of his complexity.

The human spirit is extremely complex, and we have tried to identify simple mechanisms within it.

But these simple mechanisms, on the basis of which we have proposed a classification, constitute only *theoretical types* to which real mechanisms could be linked, which are always complex.

And, above all, we must acknowledge that there is a contradiction in the reference to *simple mechanisms*:

Simple mechanisms exist in fact (apart from primary tendencies) only on the scale of what, in complex reality, is simple: here, elementary changes (perceptions being a synthesis and a translation of compositions – of a very large order – of elementary changes). It is therefore the very existence of simple mechanisms on the scale that we are considering, that of the spirit taken as a whole, which we have reason to doubt.

- . Either we try to identify these *elementary simple mechanisms* (the only truly simple mechanisms), and then we will not be able to describe the extreme complexity of their composition.
- . Or we consider, among the *compound mechanisms*, the simplest ones that we can identify, and we can consider sketching, as we have attempted to do, a description of their compositions.

We could certainly do better, for example by considering composite mechanisms of a lower order of complexity – it will then be the description of their compositions which will become more complex... We do not claim to have chosen the best compromise.

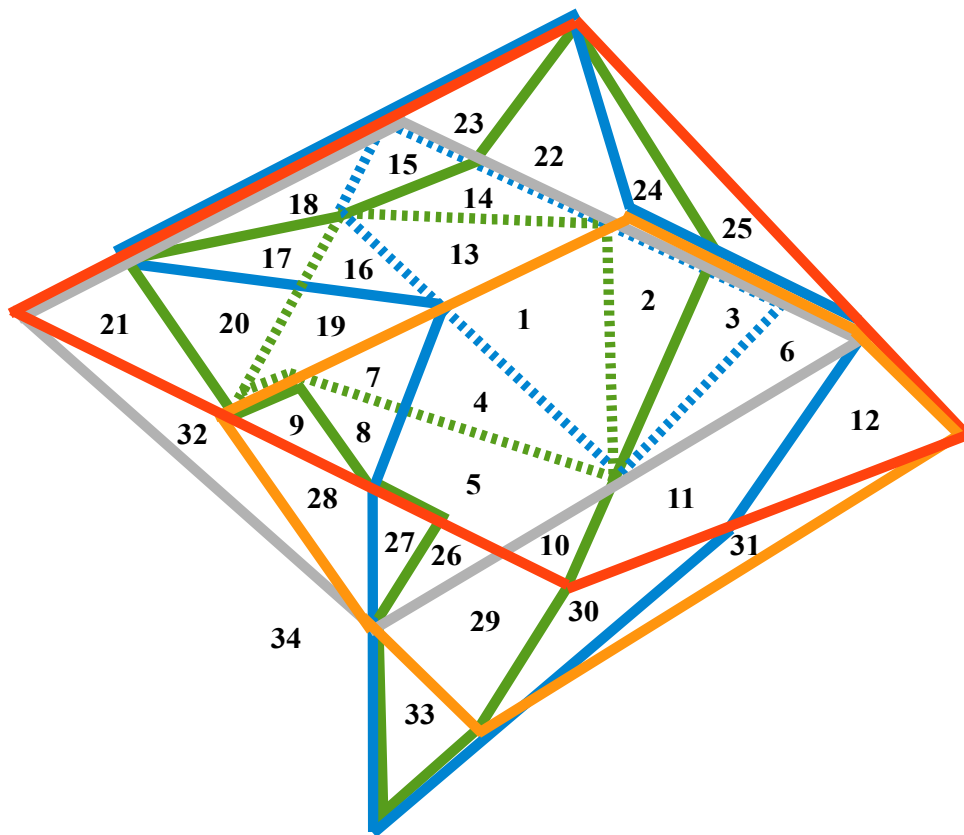
And the classification of the page 41 is mainly a **tool** that can be used as a support in the analysis of the operations of a being of order 5 – a human.

Another presentation of the classification on page 41 might be:

		Conscious triggering			Non conscious triggering			
		Conscious Motive	Non conscious Motive	Without Motive	Conscious Motive	Non conscious Motive	Without Motive	
Triggering = question	Conscious operation	k purp.	1 Delib reflection Act	2 Delib reflection Act	3 Delib reflection Act	13 Spont reflection Act	14 Spont reflection Act	15 Spont reflection Act
		nk purp.	4 Delib reflection Action	5 Delib reflection Action	6 Delib reflection Action	16 Spont reflection Action	17 Spont reflection Action	18 Spont reflection Action
		no purp.	7 Observation Observation	8 Observation Observation	9 Thought n.a.	19 Observation Observation	20 Observation Observation	21 Thought Tic
	Non conscious oper.	k purp.						
		nk purp.		10 Delib reflection Movement	11 Delib reflection Movement		22 Spont reflection Movement	23 Spont reflection Movement
		no purp.			12 Thought or Dream n.a.		24 Observation Observation	25 Dream Tic
Triggering = perception	Conscious operation	k purp.						
		nk purp.		26 Pseudo-refl Movement	27 Pseudo-refl Movement			
		no purp.			28 Thought Reflex			32 Thought Reflex
	Non conscious oper.	k purp.						
		nk purp.		29 Pseudo-refl Movement	30 Pseudo-refl Movement		33 Permanent fund Movement	
		no purp.			31 Dream Reflex			34 Dream Reflex

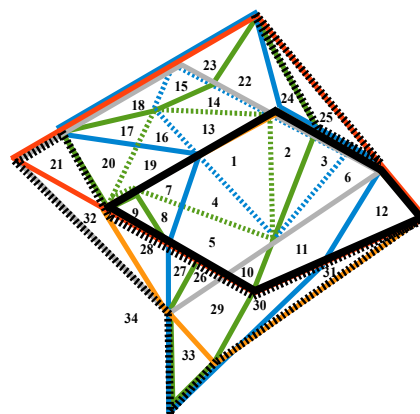
### 5.3.2 – Diagrams: Operations Maps

The classification of operations (page 41) could also take the form of a map of areas:



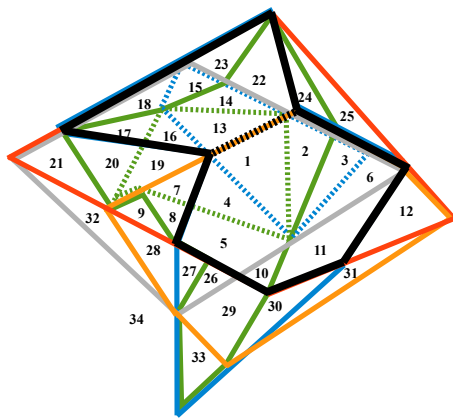
In this diagram, the areas are delimited by a line

- red            **Triggered** by a **question** inside, by a **perception** outside
- orange        **Conscious trigger** inside, **non-conscious** trigger outside
- gray          **Conscious operation** inside, **non-conscious** outside
- blue          **Operation with purpose** inside, **without purpose** outside
- dotted blue   **Operation with conscious purpose** inside, with **non-conscious purpose** outside
- green         **Operation with motive** inside, **without motive** outside
- dotted green   **Operation with conscious motive** inside, with **non-conscious motive** outside

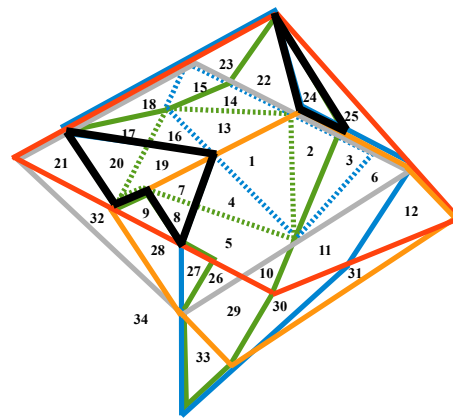


Responsibility

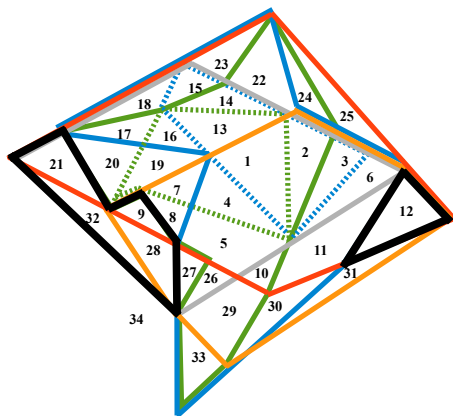
The areas of the **Thought categories** (spirit operation) are shown below:



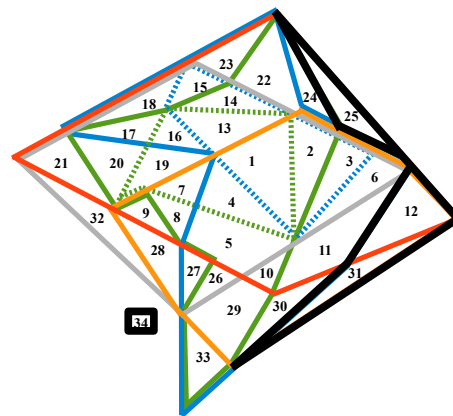
**reflection**



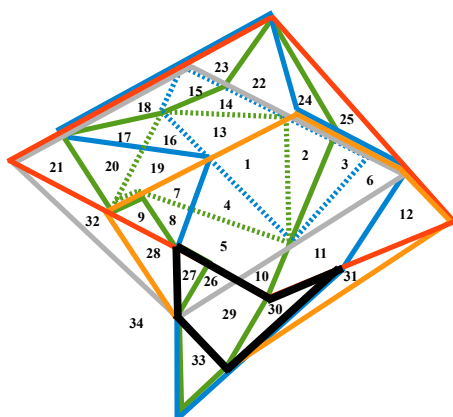
**observation**



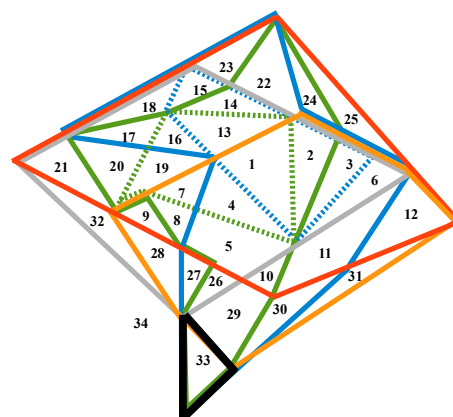
**thought**



**dream**



**pseudo-reflection**



**permanent fund**





It is necessary to clarify that neither the general shape of the map (dependent on a two-dimensional representation) nor the size of the zones are significant.

### 5.3.3 – Difference in processing between thoughts and movements

It will be noted that we did not carry out the groupings in the same way for Thoughts and for Movements.

This is because, in our two-step analysis,

- the first, the **trigger**, is always an Operation of the spirit (question or perception),
- and the second, the **operation** itself, is also an Operation of the spirit for Thoughts, while it is, of course, a Movement for Movements.

Thus, **acts** – operations having a conscious purpose, and therefore necessarily triggered by a question – fit into the zone of reflection (operations triggered by a question and having a purpose).

- 1 The subject has consciously asked himself a question, decided to act, and consciously carries out an operation, with consciousness of the desired effect and his motive for acting.
- 2 The subject has consciously asked himself a question, decided to act, and consciously carries out an operation, with consciousness of the desired effect, but without full consciousness of his motive for acting.
- 3 The subject has consciously asked himself a question, has decided to act, and consciously performs an operation, with the consciousness of the desired effect, but without motive for performing this operation. It is a gratuitous act.
- 13 The subject has chosen to act in response to a question that is not fully conscious, and consciously performs an operation, with consciousness of the desired effect and his motive for acting. This is an impulsive act.
- 14 The subject has chosen to act in response to a question that is not fully conscious, and consciously performs an operation, with consciousness of the desired effect, but without full consciousness of his motive for acting. This is an impulsive act.
- 15 The subject has chosen to act in response to a question that is not fully conscious, and consciously performs an operation, with consciousness of the desired effect, but without any motive to perform *this* operation. It is an impulsive and gratuitous act.

The same goes for **actions**, which we defined as conscious operations triggered by a question.

- 4 The subject has consciously asked himself a question, decided to act, and consciously carries out an operation, with consciousness of his motive for acting, but without a precise purpose (without having stopped on the desired effect).
- 5 The subject has consciously asked himself a question, decided to act, and consciously carries out an operation, but without full consciousness of the desired effect or his motive for acting.
- 6 The subject has consciously asked himself a question, decided to act, and consciously performs an operation, with incomplete consciousness of the desired effect, and without motive for performing this operation. This is a gratuitous action.
- 16 The subject has chosen to act in response to a question that is not fully conscious, and consciously performs an operation, with consciousness of his motive for acting, but without a specific purpose. This is an impulsive action.
- 17 The subject has chosen to act in response to a question that is not fully conscious, and consciously performs an operation, but without full consciousness of the desired effect or the motive for acting. This is an impulsive action.
- 18 The subject has chosen to act in response to a question that is not fully conscious, and consciously performs an operation, with incomplete consciousness of the desired effect, and without motive for performing *this* operation. It is an impulsive and gratuitous action.

And also for those **movements** that are triggered by a question, and have a purpose.

- 10 The subject has consciously asked himself a question, has decided to act, and performs an operation in an incompletely conscious way, without full consciousness of the desired effect or of his motive for acting. It must then be assumed that the operation has been *deferred*.
- 11 The subject has consciously asked himself a question, has decided to act, and performs an operation in an incompletely conscious way, with an incomplete consciousness of the desired effect, and without motive for performing this operation. This is a gratuitous movement, and it must be assumed that the operation has been *deferred*.
- 22 The subject has chosen to act in response to a question that is not fully conscious, and performs an operation in an incompletely conscious way, without full consciousness of the desired effect or of his motive for acting. The movement is impulsive and has an instinctive character.
- 23 The subject has chosen to act in response to a question that is not fully conscious, and performs an operation in an incompletely conscious way, with an incomplete consciousness of the desired effect, and without motive for performing *this* operation. It is an impulsive and gratuitous movement.

Other types of **movements** mainly fall into the area of **pseudo-reflection** (operations triggered by conscious perception and having a purpose) – these are automatic movements.

- 26 The subject has not chosen to act but his movement is a response to a conscious perception. He is conscious of acting, but without full consciousness of the desired effect or his motive for acting.
- 27 The subject has not chosen to act but his movement is a response to a conscious perception. He is conscious of acting, with an incomplete consciousness of the desired effect, and without motive to carry out *this* operation. It is a gratuitous movement.
- 29 The subject has not chosen to act but his movement is a response to a conscious perception. He is not fully conscious of acting, and the operation is carried out without full consciousness of the desired effect or his motive for acting.
- 30 The subject has not chosen to act but his movement is a response to a conscious perception. He is not fully conscious of acting, and the operation is performed without full consciousness of the desired effect, and without motive for performing this operation. It is a gratuitous movement.

Or they fit into that of the **permanent fund of the operations of the spirit** – they are the elementary movements necessary for the maintenance of life.

- 33 The subject has not chosen to act. His movement is a response to a non-conscious (subliminal) perception. He is not conscious of acting, and the operation is carried out without consciousness of the desired effect or his motive for acting.

**Tics**, impulsive and gratuitous movements, partly relate to the thought zone (operations without purpose or motive triggered by a question).

- 21 The subject has chosen to act in response to a non-conscious question, and consciously performs an operation without purpose or motive.

Or they fit into that of **dreams** (non-conscious operations without purpose or motive).

- 25 The subject has chosen to act in response to a non-conscious question, and performs in an incompletely conscious way an operation without purpose or motive.

**Reflexes** are spontaneous and gratuitous operations which are partly inserted into the area of **thought**.

- 28 The subject has not chosen to act, his movement is a response to a conscious perception. He is conscious of acting, he has neither purpose nor motive.

32 The subject has not chosen to act, his movement is a response to a non-conscious perception. He is conscious of acting, he has neither purpose nor motive.

Or they fit into that of the **dream**.

31 The subject has not chosen to act, his movement is a response to a conscious perception. He is not conscious of acting, he has neither purpose nor motive.

34 The subject has not chosen to act, his movement is a response to a non-conscious perception. He is not conscious of acting, he has neither purpose nor motive.

As has been said p 44, certain operations of the spirit do not correspond to movements.

There are two types of such operations in the table on the page 41:

9 The subject decides to exercise his attention. He does it consciously, without purpose or motive. It could be deliberate and gratuitous thought, or a form of meditation.

12 The subject decides to exercise his attention. He does so in an incompletely conscious way, without purpose or motive. It could be deliberate and gratuitous thought or reverie.

## 5.4 – Thinking and talking

- **Sensations** would be **syntheses** carried out by the sense organs of elementary perceptions (perceptions being **translations** of bodily changes). And **representations** would be syntheses, or arrangements, of sensations or ideas.
- **Intelligence** (the faculty of knowing and understanding) resides in the whole body. And one could say that only the spirit *knows* (consciously), but that the body is more *aware* than the spirit. And also wonder whether non-human animals do not *know* more than human beings (but of a lower order of *knowledge*).  
The distinction between organism and spirit becomes more and more pronounced with the increase of the *order of spirit* – but organism (body) and spirit are always inseparable.  
Beings, like all material objects, being made of space (cf. § 1.4), simple ideas are natural to them (one could say *innate*): the ideas of time, of magnitude, and of a three-dimensional extension. These simple ideas are not objects of *knowledge* – only objects of *awareness*. Knowledge, on the other hand, consists of more or less complex ideas, which are compositions, or conjugations, of simple ideas.
- With the evolution of the being and his spirit, his representations are increasingly *rich*. They are indeed increasingly *composed*, but at the same time less and less *fine*: the direct apprehension of the *component* perceptions is lost. Hence a development of the **analysis**, which nevertheless only becomes conscious in a spirit of order 5.  
The more we synthesize, the more there is to analyze, the better we can **understand**, and the more we can **be wrong**.  
Among all living beings, only those belonging to the human species are capable of denying reality (or of doubting their own reality).
- The subject is not the master of the ideas (representations) that come to his mind. But they are linked to his entire past and his habits: he is not a stranger to them and it is up to him, in a certain way, to **tame** them. And he is the master of what he does with them once he has become conscious of them. Just as one can try to control the course of a stream flowing from a spring.
- The subject can choose not to **undergo** his thoughts, but to **act**: to *work* with them, or on them. Acting on his thoughts is what we call **thinking** or **reflecting**. It takes courage.
- Reflection is a **dialogue with oneself**. The subject asks himself what he thinks. He seeks his own answer to the question. And this question can be summed up as *Is this proposition true or false?* Which supposes having first formulated the proposition.
  - . If he has not specified what he is **talking** about before asking himself what he **says** about it, his reflection can only be deficient, for lack of object.
  - . If, instead of asking himself what he thinks, he seeks what the response of a third party (individual or collective) would be, or what response would satisfy a third party, or even what response he has previously given, this is only a **parody of reflection**: it is not what he thinks that he is questioning.
  - . If he already knows what he's thinking, he may think he's asking a question, but he's not thinking – regurgitating knowledge, even by stringing together questions and answers, is not reflecting.
 To reflect would therefore be, in a way, to *meditate on a question* – to direct one's receptivity, to the point of conscious formulation, on what is happening within oneself.
- Reality is not affected by what the subject thinks about it.  
To say that reflection is to investigate what one thinks is in no way to say that the truth of a proposition depends on the subjects, that *each has its own truth* – a proposition is true or false, whatever the subject thinks, **the truth exists**.

- Not all questions are relevant or meaningful, and the subject may **choose not to ask them** (an extreme illustration would be a question about choosing between a shape and a color).
- In dialogue with a third party, we can seek together what is true, what is most just – it is, in a way, reflecting together. We can, instead, seek to justify ourselves, to show ourselves to our advantage, to prove our interlocutor wrong, etc. In the same way, we can engage in **parodies** or **simulacra** of reflection.
- The subject is able to vary his attention, and the dialogue with himself can continue without his knowledge. Hasn't everyone experienced that answers sometimes come when he no longer thinks about the question asked?
- The question that the subject asks may have an external origin. It is nevertheless up to him to **choose the question** that he asks. It is again a question of orders (question about the question). And it seems that we rarely ask ourselves, at least explicitly: *What question am I going to ask myself?*
- No reflection that is not based on an **observation** (whether it was made by the subject or not).
- A reflection consisting of a **single question** would be deficient. Between two realities, two ideas, two situations, two beings..., it is vain to seek similarities while ignoring the differences, as it is to seek differences while ignoring the similarities. These are at least two questions that should be asked, that should be kept in mind simultaneously. Why, then, does a subject not always do it? Wouldn't all subjects be capable of it?...
- The subject's response can give rise to new questions (again, the orders). Among these: *What consequences does his response entail?* (this is not about the consequences of a movement, but those of a response – instead of an *effect*, a *conclusion*: **therefore**...) It seems to us necessary here that the subject does not question, because of consequences that he rejects, a response that he believes to be right without questioning the necessary nature of these consequences, or the reason he has for rejecting them.
- The truth exists, we said, and yet properly conducted reflection can lead, particularly if the *tree* of questions becomes too dense (or the number of *dimensions* of the subject treated too great), to not being able to decide on an answer: we are then in the domain of **opinions** – and everyone can have their own opinion (which does not mean that they have the same value or the same accuracy, depending on the choice of questions and the quality of their treatment).
- Every subject has a past, a history, and a memory, and has therefore been subject to **influences**. He has built himself with them, and he is all the freer when he is aware of them. Any reflection must therefore include questions concerning these influences.
- There are a multitude of processes by which the subject **silences a question** that might lead him to doubt what he thinks.
- **Deliberation** (conscious question) which would be reduced to the question *To carry out, or not, the operation?* could be described as poor (or order 1). It can, and should, include other questions: will the effect produced be the desired effect? what could its consequences be (order 2)? Higher orders are possible, and they can be morally necessary, but they quickly come up against the limits of the subject's capacities.
- The matter we are dealing with in this chapter is much broader and more complex than we can say here: for example, the answers the subject gives refer to **norms** which could themselves be the subject of questions.

We will already be happy if what we say about it is not vain or too far removed from reality.

- **Language** is in some way the foundation of the knowledge accumulated by those who came before us. They were ignorant of many things that we know, they did not have the tools that we use, but there is nothing to suggest that they were less intelligent than we are, that their thinking skills were not equal to ours.

The *loop* that allowed the development of language and thought is still at work: is not the mastery of thought conditioned by that of the language in which the subject thinks, which is generally the one in which he learned to think, his mother tongue? An insufficient mastery or concern for this language inevitably results in a deficiency of thought and reflection. Indeed, the subject is then not capable of formulating in a suitable manner the proposition whose reflection consists in appreciating the truth.

Everyone can experience that, if they try to express themselves fairly, they are led to ask themselves significant questions which are made possible by the rigor of what they have stated.

And does not a deficiency of thought restrict **freedom**? Freedom is not limited to the freedom to come and go, or even to express oneself: what remains of the freedom of a subject who would not give himself the means to know what he thinks, or would rely on what others think, whoever they may be?

And what can we think of a freedom that would be reduced to choosing *like whom* one thinks?...

There is often confusion between *freedom of expression* and *freedom of thought*. Only the former can be decreed or limited – freedom of thought, on the other hand, is educated and constructed.

Every language evolves, but it can be in the direction of enrichment or **impoverishment**, as when words become vague or the same word is used to designate several concepts – there is then a loss of meaning. And we can identify a *negative loop*: the impoverishment of language, impairing the capacity to think, makes it more difficult to understand the importance of caring about language.

One might even wonder whether too great a speed of evolution of language would not make it difficult, or even impossible, to adapt the capacity to think.

More important than words, however – they are only approximations that we must try to make as good as we can – is to grasp the reality that we are trying to designate by using them.

And let us note that reality is not affected by how we name it.

- In reflection, it is appropriate to ask a precise question when possible, and a vague or general one when necessary.
- The deficiency of the capacity for reflection is mental **debility** (idiocy or imbecility, depending on the degree, but there are lesser degrees). We call **silliness** (in french: *bêtise*, from *bête=beast*) the **lack of use** of this capacity – or a deficient use. We consider it to be present in every subject, to different degrees and in different and more or less broad areas.

Silliness is not innate, it comes from a **lack of practice** in thinking – examining the reasons and origins of this lack would be beyond the scope of our discussion.

And let us not confuse it with **ignorance** – silliness has little to do with education level, and one of its many mechanisms is not thinking because you know or think you know.

Beasts (non-human animals) are not silly: their capacities are not those of humans, but there are reasons to think that they use them better than humans. Could one reason be that they do not enjoy that freedom specific to humans called *free will*, which allows them not to use their abilities?

- In the course of our reflection, this chapter precedes the considerations on gravitation (§ 2) and radiation (§ 3), but it is based on what we could call a **metaphysics of change**, one aspect of which was exposed in § 1.

Metaphysics is understood as an attempt to go from what is perceived or felt to what is.

- Does the binary presentation of reflection (*Is this proposition true or false?*) allow us to think that a machine could reproduce the processes of human thought? ... Given the richness of the materials used, and the very high order of composition of the mechanisms, this does not seem certain to us. Furthermore, can a machine give itself a purpose adapted to each of its operations (and to a motive), and therefore indefinitely variable?
- We considered that the living being *contains* a representation of himself and of what is not him. This representation would reach, with man (the human being), its highest degree of extension – not the highest possible, but the highest among existing living beings.  
It contains an *image* of the world: it is not reality that is an image of man, but rather man (his spirit) who would be – to the extent that he contains it – an **image of reality**.  
He is able to **understand** the world and what is happening in it – at least as much as the extent and precision of this image allow him.  
He understands because he is able to analyze, to a certain extent, what his spirit has synthesized.  
The condition of the human being therefore has its **limits**, which it is not within his means to push back.  
It is up to him, on the other hand, to **fulfill** this condition. This would mean understanding more, and this is not reduced to the progress of science: it is also understanding himself and understanding others. He has the means to choose to strive for this or to give it up.  
And it is certainly not by multiplying *prostheses* that he will achieve this – and even less that he will push his limits.  
There are many things he does not understand, and still others **he cannot understand** – of these he had better not speak.  
And we won't talk about it.

*Nothing is true because someone said it.*