# Chapter 4 The Genesis of Knowledge and the Foundation of the Sciences

In this chapter, I deepen the account of the genesis of knowledge through Husserl's archaeological investigations, which ultimately allow us to uncover the precategorial level analyzed, in a particular way, in his discussions of the life world.

#### 4.1 The A Priori of the Life World

The delineation of the pre-categorial sphere coincides with the description of the characteristics of the life world (*Lebenswelt*), the analysis of which, achieved through the reduction, makes evident the dimension of lived experiences. This "backward reference" of the reduction, even when it calls for the abandonment of the sciences, understood as the fruit of the categorial, does not signify, as we have already seen, the withdrawal into a speculative "silence," nor is it a return to a prephilosophical past; rather, it signifies a "a complete tearing down" of the illusion of the solution to problems "from above" (*von oben*): we need to start from "below" (*von unten*). If we follow this latter path, we do not have to abandon everything, that is, we continue to seek for the a priori (i.e., the *Lebenswelt*) through "reason," which is an ambivalent instrument. And because reason is ambivalent, sometimes we discover things and sometimes things are hidden from us. Such an a priori, then, is constituted by the dialectic of finitude and infinity.

Ms. AVII 21 (1933) is dedicated to the aforementioned notion of the a priori and bears the title "The Life World, Its A Priori."

The tendency to embrace the totality of things and to surround and understand them to the depths of their being, if it is present in human knowledge, is fully realized only in God, Husserl maintains. Here, we encounter the question posed by Kant about the difference between the human and divine points of view. God's point of view, of course, sees and understands all things. Precisely because the human

<sup>&</sup>lt;sup>1</sup>Edmund Husserl, Ms. A VII 21, Lebenswelt, ihr Apriori (1933).

being contemplates this possibility and because this thought is not foreign to him or her, s/he tends toward the obtention of comprehensive knowledge. Such human knowledge, however, is qualitatively different than intuitive knowledge, which is attributed to God. The positive sciences that seek comprehensive knowledge have inevitably to limit their inquiries to a particular project or field of study. The object of science, understood historically, consists in the establishment of a communal work that tends toward the infinite, and even in the relativity of its level of completeness, science has as its "telos" a comprehensive knowledge that functions as a "regulative idea."

In this context, then, what does phenomenological analysis bring forward? It makes evident the a priori, which is observable in the framework of cognitive relations, understood as historically consolidated: Evident is the tension that exists between the idea of totality—the world and the cosmos—and the finitude of single forms of knowledge, whose sum total never reaches infinity. It is the dialectic of finitude and infinity that is implicitly contained in the pre-scientific world as experience—still un-thematized—of a life within a "world."

The problem consists in knowing whether this a priori is a function of culture that is the work of a process of categorization—and in this case it cannot be considered to be a priori because it is a historical formation—or a mode of experience giving itself, which means that experience possesses such a gnoseological structure. If we examine more closely the characteristics of "infinity," we notice that it is connected to the theme of the open horizon; we have here an infinity that is an opening (Offenheit) and a furthering that consists of the fulfilling of every anticipation and the agreement between that which is presupposed and that which will be realized. One directly finds oneself, then, in the midst of a temporal process that comes to be through successive syntheses and that configures itself as a flow that unfolds in two directions: as a progressive knowledge of always new aspects of the surrounding world and as the achievement of the totality of an open and endless multiplicity; the infinitely small, understood as the inexhaustible determination of every single thing, and the infinitely large, understood as the identification of oneself with the one who knows the whole.

We are dealing here with spatiotemporal extension that moves from the now here to the after there. This extension continues in successive fulfillments, which also represent corrections of different perceived aspects in order to reach true being, that is, the totality of this very being as the ideal unity of appearances. The foregoing conception can be "made explicit" only through a philosophical vision of the world, but it arises in relation to the lived body (*Leib*), which we understand as a field of perception, as a field of a plurality of spatial objects that are subject to further amplification and successive syntheses of fulfillment. The lived body experiences itself as progressively moving forward but also as having the possibility of return and, hence, as the central point of diverse spatial directions. The surrounding world appears, then, as an "oriented" world in every phase of experience, and always with reference to the lived body.

The surrounding world is and is not cosmic space and cosmic time. It cannot be so because of the surrounding world's evident limitations; rather, the surrounding

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world is presupposed and it gives itself (*zur Selbstgegebenheit kommt*): the world is an idea and the things of the world are partial ideas. Infinite space and infinite time are ideas. Such givenness is, however, relative to the intentional unities that are a grade higher than those given by the real surrounding world.

The finitude of the surrounding world, understood from the perspective of pure experience, does not represent an abstract limitation of cosmic infinity, understood as a determination achieved through the *via negationis* (the way of negation); rather, in its very limitation, the surrounding world is connected, through a *metexis* (an inbetween), to a pre-constituted conception of ideal infinity.

The existence of the cosmos, understood as an infinite totality, is linked to a "presupposition" that arises from the always-open process of experience. Hence, the relation between the finite and the infinite, the real and ideal, unfolds in a gnoseological way. The philosophical-scientific tradition that discusses this way of knowing in ontological terms has fallen into a sort of naïve position. The analysis of the two levels in which one finds both the life world and the dynamic tension between them and the two levels, namely, real, concrete experience and ideal presupposition, permits the making evident of such a structure and, hence, the a priori of the very same life world. If this life world is experienced "passively" and as naïvely accepted, we are led not only into adopting a naïve natural attitude but also into taking on a philosophical-scientific attitude, as has been the case in western culture.

#### 4.2 Science and Life

If the structures of the life world can be properly seized only through changing one's perspective through the phenomenological method, does this not mean that we lapse into the very intellectualism that phenomenology claims to overcome? Husserl highlights two different modalities of evidence<sup>2</sup>: first, there is the natural modality, which is connected to *doxa*, the values that guide moral and religious behavior; second, there is a modality that we can define as "scientific" (*wissenschaftlich*), understood in the full sense of the term. The latter is and is not linked to everyday and traditional scientific-philosophical knowledge. This is the case because this modality does not refuse that which is intuitively given as a "fact," it is given as beautiful and good. This is also not the case because this modality "positions things in their right places," in a life that is modeled on a complete fulfillment of intentions and which completely "liberates" the I.

Are we dealing here with a process of idealization? How is this process achieved? It is reason that, far from lying in opposition to life, struggles against the absolutization of partial aspects of life itself. The result, then, is not one of establishing a hierarchy of values where philosophy occupies the principal position, unless we

<sup>&</sup>lt;sup>2</sup>Edmund Husserl, Ms. BI 21, Wissenschaft und Leben. Weg in die Philosophie der Praxis her (1918–1931).

understand the primary position of philosophy simply as a reflexive attitude of essential description. In such a case, the value of every existential expression is not cancelled out; on the contrary, it is made evident. According to Husserl, if reason, understood in this particular "scientific" sense, has the greatest authority, then, in religious revelation, there is such an immediate experience that it configures itself as "higher" than any other experience or knowledge.

From the radical viewpoint of phenomenology, on one hand, we have to abandon the battle between various theorizations of science (because when phenomenology is proposed as a "new" science, it is not a theory like other theories; rather, it is a recognition of what is real and originary, and it is a making manifest of motivations); and, on the other hand, we must not liquidate all traditions, thereby accepting the inextricability of the process of "mechanization," which also entails the inauthenticity that invalidates or nullifies "life." Here, the methodic demand of phenomenological inquiry distinguishes—one thinks of Bergson's position in this regard, which Husserl seems to have accepted—between life and habit, life and schematizing intellect. To grasp life in its authenticity, to let oneself "be guided" by life itself does not mean eliminating all "mediation," for it is already implied in life, in terms of both life's positive and negative aspects.

Husserl is aware of the false opposition between life and reason, which is where modern rationalism leads and where the opposition still lingers in contemporary culture—a culture that positions itself against religious faith by virtue of the sciences that it has developed. These sciences demand understanding, intuition, penetration, and not knowing how to make all of these requirements accord and how to order them all, the sciences tend toward a complete refusal of faith, ultimately viewing it as irrational.<sup>3</sup> This is why Husserl is deeply involved in searching for the originary and why he has to "invent" the tools for his discovery. But is this really a discovery or simply a rediscovery of something forgotten or lost? We find ourselves facing the dilemma of the Enlightenment, which still affects our contemporary western culture and which was first articulated by Descartes, who claimed that reason grounds itself and is the foundation of all knowing. Rousseau puts an end to the dilemma by claiming that a society founded on culture is a corruption of our original state of nature.

If the originary state coincides with life, how can we "truly" identify it? We can identify life because either *all* is life or there are diverse levels of life that are more or less valid, but how can we distinguish between what is more or less valid? Phenomenology responds to this question by urging us to attend to that "which is given," but we must also "create" the necessary conditions for this givenness to actualize itself. Is the method, then, merely rationalization? Is it a process of categorization? This cannot be the case, if we pay close attention to the principle of *Selbstgegebenheit* (self-givenness). But even here we have to delineate a method and use reason. This insight is taken up in Ms. B I 21 I cited above, which is dedicated to the relation between science and life. We find here an understanding of

<sup>&</sup>lt;sup>3</sup>I develop such an argument in my book *Il senso del sacro. Dall'arcaicità alla desacralizzazione* [*The Sense of the Sacred: From the Archaic to Desacralization*], (Rome: Castelvecchi, 2014).

reason different from what we normally encounter in the western philosophical tradition.

Reason, in this manuscript, must combat a tradition that has "lost" its very own justification (read Rousseau). The western tradition has constructed an edifice that no longer knows how to justify, yet it has to give an account of all traditions, understood in terms of their historical and structural aspects, in order to understand all the final laws that condition all domains of knowledge. Such a "universal" science, understood as reason in the most authentic sense, is an "idea" and, hence, the idea of a categorial formation (*kategorialen Gebildes*) that contains an idea of a method, of a path to be followed. Does it become impossible here, then, to overcome the impasse of a categorial construction, even in the elaboration of a method and in the idea of a pure science becoming a guiding thread for a "teleological" movement that tends toward the infinite? This cannot be the case because reason, according to Husserl, is the capacity to "make evident," and this is why the method must lead to that which "has been made evident" in the sense of things.

### 4.3 The Foundation of the Sciences

The reflection upon the formation and validity of the sciences constitutes a large part of Husserl's analyses and entails the phenomenological method tackling a significant epistemological challenge. This theme of reflection, for Husserl, bears the title "foundation of the sciences."

Husserl treats the theme in numerous published and unpublished texts, and given his large *Nachlass*, it is wise to make reference here to various manuscripts that deal with his analysis of the theme.

In Manuscript A VII 20, "The Possibility of Ontology (1930)," Husserl writes, "My original question was motivated by the *Theory of the Naturalistic Conception of the World by* the positivist Avenarius. His work consists of a scientific description of the world as a *pure world of experience*—an experience that occurs in waking consciousness—that is not experienced as accidentally empirical, but as an *essential description* within the phenomenological reduction. We are dealing here with the essential structure of the phenomenon of the world reduced to pure experiential phenomenon, *the pure phenomenon of the world experienced as such*."

I have indicated the key words of the aforementioned citation in italics and they demonstrate what Husserl saw as the direction to be taken by the phenomenological method. The problem of the foundation of science historically arose as the counterposition to positivism's absolutization of science. It also was born out of positivism's understanding of experience, which was seen to be the ground of the sciences. Hence, the impetus arose to describe the world as a pure world of experience. But Husserl does not wish to reduce the world to empirical experience; rather, he sees

<sup>&</sup>lt;sup>4</sup>Edmund Husserl, Ms. trans. A VII 20, "Möglichkeit der Ontologie (1930)", transcribed by M. Biemel, 66.

our experience of the world in essential terms. Here, the essential structure of the phenomenon must be obtained by isolating what the experience of the world as such is.

We find ourselves facing two questions about the world, understood as a world of experience: on one hand, we have the foundation of the positive sciences and, on the other hand, we find the analysis of this world, understood as pure experience. Concerning the former, the term "foundation" presupposes a terrain to which one can lead back the positive sciences, which possess gnoseological validity determined by their processes of investigation and clarification. Foundation can also have another meaning, namely, the explanation of the way in which science constitutes itself in relation to its originary source, always mindful that such a constitution represents the object of the investigation that is to be completed. In this sense, then, we find ourselves pushed toward an analysis of the validity of science.

According to Husserl, as explained in his manuscript Ms. B I 27, titled "(1) The Task of Clarification; (2) The Inadequacy of the Positive Sciences; The Idea of Science (1924–1926)," in the positive sciences, every researcher uses certain fundamental concepts that he inherits from the tradition and that belong to his formation as "empty symbolic residue," which he could use to clarify matters. Always returning to these sciences' originary and proper sense, he can reactivate the process that he has carried out on their formation and, therefore, on the "originary foundation" (*Urstiftung*) of their conceptual meaning.

Moreover, every science, as Husserl indicates in Ms. B I 33 titled "Critique of the Positive Sciences. Third Way (1922–1933)," can never be complete in itself and aspires to acquire a full foundation. Even for sciences that are configured in such a way as to presume that they do indeed possess absolute justification, for example, geometry and contemporary physics, it is necessary to recognize that their system of principles and theories is nothing but an "enormous superstructure: that lacks a "valid foundation of cognition." In fact, if we point out the scope and aims of these sciences and we trace back to their guiding structure, always with respect to the "pure" science of space and to the "true" science of nature, through a reductive analysis, their foundation consists in the idea of pure space or the ideal concept of nature, which have their constitutive elements in a further or more profound sphere completely different than a superstructure. It is to this third level that subjective, relative concepts linked to sensation belong, which the physicist and the geometer discard, thereby giving to them no possible way of reentering into the objective validity of the world.

The negative reference to, the negative use of experience by the sciences, arises, then, in two senses. First, when pre-scientific experience, which properly belongs to life, is neglected and, second, when, under the pretext of making a reference to

<sup>&</sup>lt;sup>5</sup>Edmund Husserl, Ms. trans. B I 27, 1) Aufgabe der Klärung; 2) Unzugänglichkeit der positiven Wissenschaften; Idee der Wissenschaft (1924–1926).

<sup>&</sup>lt;sup>6</sup>Edmund Husserl, Ms. trans. Beilage zu den Vormeditationen: Warum selbst exakte positive Wissenschaft zu keiner Endgüldichkeit führen können. Kritik der positiven Wissenschaft. Weg III (1922–1923).

experience, experience itself is overcome. This task of clarification must be realized by a new and particular mode of inquiry that inserts itself in the furrows of traditional philosophy, which in the past was called "first philosophy," *Erste Philosophie*,7 and which sought the meta-cosmic—an adjective chosen because of its assonance and opposition to the term "metaphysics," understood in its traditional meaning—"originary terrain."

That the sciences need the aforementioned kind of clarification does not only concern their epistemological status; rather, and above all, it is the fact that there is the problem of an unexplained aspect of nature—an aspect that the sciences pretend to explain. Nature remains spatiotemporal, identical with its spatiality and temporality, even if space is considered in Euclidean or non-Euclidean terms. The mode of being of nature prescinds from physicalist determinations and it becomes clear, when confronting such a problem, that physics, with its theoretical operations and its explanations of nature, does not comprehend the need for the clarification described above and how it is that this clarification is not included in what the sciences do. Husserl's critique of scientism is exact and precise. Sciences, in fact, presuppose the world of experience and do not subject it to deep investigation.

Biology, anthropology, psychology, and the sciences of the spirit can all be interested in organisms, animals, human beings, but the being that is relative to nature always remains the same, even if it is seen in a new light, and it is this that must be the object of research.

Manuscript A VII 20, where we began, represents the advent of a process of critique of science developed over time, which ultimately culminates in the text of the *Crisis*. Husserl, even earlier than the *Crisis*, however, maintained that there was a problem with the positivist sciences, arguing for a cognitive foundation that could not be secured through such sciences.<sup>8</sup>

The pars destruens (destructive or de-structuring part) of his argument sought to make evident the difference between the certainty obtained by the sciences and a deeper sense of certainty. The first kind of certainty, on one hand, had to overcome any confusion in the unfolding of thought. Precisely pin-pointing the epistemological status of modern science, Husserl maintains that the "overcoming" of the confusion is not about sensation—this does not enter into the discussion—rather, it is about the conceptual uncertainty fought against through the processes of verification.

This experimental verification is illusory. In reality, we have here a logical process that is very different from that connected to intuition (*Anshaulichkeit*) of thingness. The craftsperson and the scientist, in their concrete and experientially determined work, do not only differentiate the "object" of the former from the object of the latter, which is to "be discovered." Rather, the fact is that the scientist is guided by a presupposition that, in a well determined sphere of experience, there must exist an object of a certain type such that it fulfills an idea intention, thereby making possible a construction whose pieces must fit within a predetermined

<sup>&</sup>lt;sup>7</sup>See EP Land EP II.

<sup>&</sup>lt;sup>8</sup>Edmund Husserl, Ms. trans. B I 33, op. cit.

mosaic. The characteristic of the proof lies in a deduction that follows from certain premises: something similar must be analogously found in the general form about which one schematically thinks. It becomes a necessity, then, to further distinguish between a deduction that is related to a concrete experience—for example, I see traces of humans having been in a certain place and I deduce that humans must have been there—and the logical deduction that presupposes an axiomatic system with well-defined rules. We are dealing here with an analytic logical form that is founded on the formal possibility that excludes all "matter" whatsoever. If one considers, however, material specification, it is necessary to account for deductions and proofs that are valid both as reality and possibility, but in this case possibility arises through a presupposition that is motivated in a completely different way from formal possibility. The formal sense of possibility is configured within symbolic thought and leaves terms absolutely indeterminate, whereas possibility in this case is manifested through means that can be fulfilled by "actions" constructed in a typically determined way. Here, the term refers to that which is concrete in such a way that the intuition corresponding to an expectation truly realizes itself. Taking up once again the example of the traces of human beings, verification can only come through an intuition that fulfills that which is anticipated.

The difference established earlier leads to the conclusion that not only mathematics but also the natural sciences, which are grounded in mathematics, demonstrate that scientific aims are placed within the framework of an intentional, constituting subjectivity. This does not mean that the researcher must be aware of such an operation. In fact, the researcher maintains that objective knowledge must be "evident" without being aware that this very evidence refers back, in the end, to a lived experience. It is possible, then, for us to move on to a different level of analysis because if every object has logical content, whose determination is the aim of science to know, every object, then, has constitutive content that conforms to knowledge. If we analyze such knowledge, we uncover properties that can be expressed through logical predicates. This analysis displays what the "constitution" of the object is.

In other words, we are dealing here with a system of *Erlebnisse* that belong to the system of cognitive operations in which the subject knowing the object in question is configured as possessing this particular logical content. It is necessary, therefore, to distinguish two attitudes. First, the naïve attitude, which extends to cover both everyday and scientific knowledge, including psychological knowledge, that is characterized by the fact that it "seizes" an object and that it wishes to know the gnoseological process that makes possible the true being of the object. The scientist that seems to take on a sharply aware and critical attitude, in reality, stops his/her analysis at what could be defined as the "ontic" evidence. The object is experienced as possessing certain characteristics and one presupposes through anticipation that an object possesses other characteristics. One makes judgments according to a normative logic, understood in the noetic sense.

The second attitude consists of consciousness or evidence being understood in psychological and transcendental senses. Here, the psychological sense is understood differently from its sense in the natural attitude: the sense forms part of a

phenomenological psychology. This is why Husserl asks himself whether or not normative logic constitutes a particular field of psychological research.

We must not forget Husserl's demand, already made in his early work, to investigate the logical moment within a psychological framework. This exigency gradually leads one from psychology to phenomenology to the elaboration found in such works as *Formal and Transcendental Logic*: the logical moment, though it has its own configuration, can be analyzed and understood, if it is led back to a constituting subjectivity. Hence, the terms "transcendental" and "psychological" become identical. Life and consciousness (used here as synonyms, and we will see later the problem with this identification) are subject to psychological objectivation and, therefore, belong to psychology, but the transcendental reduction also acts in relation to them, thereby bringing to the fore the claim that every objectivity is constituted by an ego.

## 4.4 Toward a New "Transcendental Aesthetic"

The problem of a transcendental aesthetic is gnoseological, and this is demonstrated by the recurring attempt on Husserl's part to found a new transcendental aesthetic. He sometimes is explicit about his intentions, while at other times he carries out a series of analyses of lived experiences in order to show the potential for a transcendental aesthetic.

In Ms. A VII 14, called "Transcendental Aesthetic," we find the base for the delimitation of the aesthetic realm. It is obvious in this text, even though the references to Kant are scarce, that the shadows of the *Critique of Pure Reason* hover over Husserl's thinking. We also note here the distance of the discussion from science.

On one hand, the domain of the aesthetic is broad enough to include *all* of experience and, on the other hand, it restricts itself to the evidence of an a priori that is a "structure" rather than a determined faculty. Because the transcendental aesthetic is a "systematic exposition of the essential structure of a world as a world of possible experience and the essential structure of its modes of givenness, its modes of appearing," it harbors an ambiguity, which Kant did not resolve. On one hand, the ambiguity refers to the concrete life of the human being, to the world that belongs to him or her in everyday living. The ambiguity appertains to the structures that remain invariable in eidetic variation and that constitute the open infinity of this world. On the other hand, one finds mathematized nature. The former do not immediately identify with the latter, with mathematical ideality. On the contrary, the mathematized world is an ideal possibility with respect to the given world. Through eidetic variation all possibilities are achievable, but it is at this point that the ambiguity arises, namely, when the openness (*Offenheit*) of the factual world becomes confused with the infinity (*Unendlichkeit*) of the mathematized world, which is

<sup>&</sup>lt;sup>9</sup>Edmund Husserl, Ms. trans. A VII 14, "Transzendentale Aesthetik (1920–1926), transcribed by C. Schröder.

<sup>10</sup> Ibid., 84.

founded on a particular *eidos* that is linked to, but which must not be confused with, the "generality" that is related to things.

Ideation, the operation that lies at the base of the formation of the sciences in general and the natural and spiritual sciences in particular, rests (and here we grasp more deeply the gnoseological moment) on the idea of infinity, on the presupposition that an iterative proximity is possible, a continuous drawing closer to a determined being from whose reality we distance ourselves. From the interweaving of mathematics and physics arises the exigency of an "ideal ontology of nature" and of an "empirically" exact science that draws gradually closer to a science whose ideal structure has already been presupposed. Hence, within the transcendental aesthetic one also finds the ideation and iteration that is proper to the sciences of the spirit.

It appears, then, thanks to the transcendental aesthetic and from within it, that it becomes possible to distinguish practical experience, which is immediate and everyday, from more complex experience that is based on ideation.

At the beginning of the manuscript, however, the term "aesthetic" possesses a more limited meaning that is closer, in certain ways, to the Kantian notion. The term refers to the universe of intuition and description and, hence, to empirical generalities from which one can elaborate a transcendental aesthetic a priori, which is different from a higher transcendental, analytical induction that is no longer experience seized in its generality, but is the construction of ideas based on iteration. A universal a priori exists, which is more radically positioned: it refers to experience seized in its generality, understood as singularity, generality, type, and ideation. This seems to be the object of a transcendental aesthetic, which oscillates between the making evident of a totality that comprises all of experience—experience understood as global knowledge, which in Kantian terms must be seen as both aesthetic and analytic—and the limitation of the aesthetic itself to a "non-scientific" domain of experience that excludes all elements that refer to an elaboration of the sciences (the forms of intuition are seen as elements relevant for the elaboration of arithmetic and geometry.)

Moreover, the difficulty of separating the analysis of the experience of the aesthetic-transcendental a priori from the analytic a priori is connected to the fact that our experience is configured in an historical sense as a complex experience. This is why it becomes necessary to undertake a *reductive inquiry* that analyzes the various modalities of givenness, ultimately differentiating that which is given from that which is constructed. Husserl goes onto say in the manuscript: In order to avoid "construction" on the part of the researcher, even in his/her reductive analysis, while allowing the things themselves to speak, he proposes that one investigate motivations, which lies at the base of particular configurations of perceptual unities.

We are dealing here with the experiencability of an identity within the unity of a *perception* relative to a spatiotemporal object that, even in the flow of a perceptual field, remains unchanged, an identity without causality, to employ other words.

In order to understand the aforementioned identity it is necessary to consider the moves of movement and change, even the qualitative ones, to which things are subject in a field. Every movement constitutes itself as a change and in all phases of the change there is momentary rest. And the different phenomena that function in light

of the manifestation of movement must first achieve a unity. Hence, the phenomenon of the movement of a thing, understood as a series of visual apparitions in the ocular-motor field, must be expressed by the observation that the thing changes its position in the field. Two possibilities present themselves, which derive either from the movement of the subject (and this is why the object is seen to be drawn "closer" or "further away" in the visual field) or from the movement of the subject or the object (this is why all the aspects that constitute the thing at rest are present, but in a different way). This discussion is taken up in greater detail in Husserl's *Thing and Space*, as we shall see in the next chapter.<sup>11</sup>

All perceptual fields contain objects in movement and objects at rest, which can change their states from movement to rest and vice versa. The characteristic of such a change is the originary lawfulness of "immanent causality"; we expect that the future possesses the same style as the past. Hence, the link between spatiality and temporality: we analyze here the lived experiences that constitute the thingly, spatial-temporal world and we also explore how that which was lived becomes a rule for a successive experience. If a hyletic datum is at rest, we expect it to remain this way, that is, we "live" it in this way. If it changes, we expect to "live" an analogous change. But against this law of repetition, a delusion or error can arise: instead of repose, movement occurs; instead of the same movement, a "different" movement happens. In other words, the anticipation of a "form" of reality can often be put into crisis. In our very first attitudes, we find "causality," which is defined as properly immanent because it is based on repetition and, secondly, on contingency and newness.

The permanence of identity of the single thing within the perceptual field or the repetition of the phases of movement of the thing or things within the perceptual field carry with them the "certainty" that arises from the association of permanence without changes. Hence, in relation to a thing that I see, from the one side of the thing that I see, I can foresee the consistency of missing parts because I have already experienced them through a free movement. The modality of a delusion impedes us from concluding that one can definitively establish the characteristics of the experience: no concrete existent can be retained to be known through a tested certainty that implies absolute repetition.

The observation of the presence of two aspects, that is, permanence and newness, understood as modalities proper to the web of experience permits, on one hand, the descent of the categorial to the pre-categorial and, on the other hand, the ascent from the second to the first. Reductive inquiry permits us to understand how the very concepts of science, which far from representing a "reading" of the world in itself, are, on the contrary, a progressive transformation, a transvaluation of sense; and although sense may arise from the phenomenal world, science distances itself from phenomenological sense-making structures, thereby projecting onto the world a conceptual construction. The link between the two worlds, namely, life and science,

<sup>&</sup>lt;sup>11</sup>Edmund Husserl, *Ding und Raum. Vorlesungen 1907*: Hrsg. von U. Claesges (Den Haag: Martinus Nijhoff, 1973). English translation: *Thing and Space: Lectures of 1907*, trans. and ed. by R. Rojcewicz, (Dordrecht: Kluwer Academic Publishers, 1997).

exists, but not in the sense of a pure and simple "continuity" whereby the passage of one to the other comes about through progressive clarification; rather, on the contrary, continuity indicates a change of sign, the use in a "different" way of that which is lived pre-categorially. At this point, we do not have here a liquidation of science, but simply the description of its genesis that can, on one hand, impede the absolutization of its concepts and, hence, the pretense of these concepts to be seen as the only authentic ones (against the claims of positivists) and, on the other hand, that can demonstrate the validity of other dimensions, especially when one finally discovers the theoretical value of the pre-categorial sphere. Let us now move forward with a description of this pre-categorial sphere.