The Philosophy of Multilevel Reality and the Morphosynthetic Method, a New Approach to Hegel's Theoretical Works

Hegel's major theoretical (non-historical) works, published by him ("Phenomenology of Spirit," "Science of Logic," "Encyclopedia" are explored from the perspective of the philosophy of multilevel reality and using the new author's method, called morphosynthesis. The philosophy of multilevel reality asserts that there is an ontological structure of reality, as a hierarchy of its domains; each higher level is more complex than the lower one, is supported by it, but possesses new properties and laws. The morphosynthetic method iteratively analyzes the structures of complex works, constructs appropriate graphical representations (mostly by hierarchical networks), which allow hermeneutic syntheses of the meanings of the isolated or ensembles of works addressed, as well as transformations of the graphical structures. It is shown that Hegel's works share this multilevel philosophy, both explicitly and through their structure. A triangular modular and a multi-level organization of the works is highlighted. The ternary microstructure corresponds to the dialectical epistemological relationship of thesis-antithesis-synthesis or the ontological interaction of being-nothingness-becoming. The multi-level macrostructure reflects the stages of human consciousness and those of natural or social reality. This leads to intense correspondences between these structures, revealing new meanings and allowing for new graphic representations. Finally, an "aesthetic" structure of the works can also be detected, through certain relationships between their parts, in accordance with the Pythagorean "golden section", which could indicate Hegel's desire to fuse the Christian trinity with the ancient Hellenic beauty. This is also evident in his union between the metaphysical ontology of Aristotle and of scholastics, with Plato's dialectics.

Keywords: *Hegel's philosophy, dialectical relationships, multilevel reality, morphosinthetic method, graphical representation, hermeneutic exploration*

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Introduction

We will analyze five of Hegel's most important works (with the abbreviations we will use in the bibliographical references), which form the structural-conceptual core of his philosophy: two relatively independent works ("The Phenomenology of Spirit" (PS), "The Science of Logic" (SL) and three grouped in the "Encyclopedia of Philosophical Sciences": "The Logic" of Encyclopedia (LE), "The Philosophy of Nature" (PN), "The Philosophy of Mind [Spirit]" (PM).

Instead of focusing on a single work ("The Phenomenology"), I preferred to try to provide an overview of the structure of the core of the Hegelian system. Beyond the dialectical argumentation at the level of sentences (micro-reasoning), which has been studied more extensively, what also matters is the chain of ideas at the level of each work (mezzo- reasoning) and their evolution throughout the body of works (macro- reasoning).

We will first point out some characteristics of the morphosynthetic method, inspired by the philosophy of multilevel reality, then we will apply this method in the analytical and synthetic study of Hegel's works and see what new insights this approach can bring.

Philosophy and Method

Philosophy of Multilevel Reality

An appropriate and fruitful approach to understanding Hegel's conception is to study it from the point of view of the theory of multilevel reality. This theory asserts that there is an ontological structure of reality, as a hierarchy of its domains (physical, chemical, organical, social). Each upper level is more complex than and is supported by the lower; on the one hand, the lower furnishes the building materials (together their properties), which interact and modify themselves, giving birth to the structure of the upper level, with new properties. On the other hand, this new structure acts on each of its components and on their ensemble (in fact, interact with them), so that they are modifying together their properties. This implies a hierarchy of existing sciences and, possibly, a philosophy that evaluates and summarizes the results of the sciences and the relationships between them.

The best start for comprehending this complex structure is from the main issues concerning the relationship between part and whole (see Figure 2.1a&b): a) reductionism, b) holism, and c) interactionism (also known as relationism or systemism) – mutual, not univocal, conditioning. We must absolutely notice that "whole" and "part" are relative notions: any whole in relation with its parts (P_1, P_2, …, P_n) is, in its turn, a part of a more comprehensive whole; therefore, it is a *holon* (*holos* – integer, *on* – part), so called by A. Koestler (1976, 48), which enables the avoidance of reductionisms to the whole or to parts.

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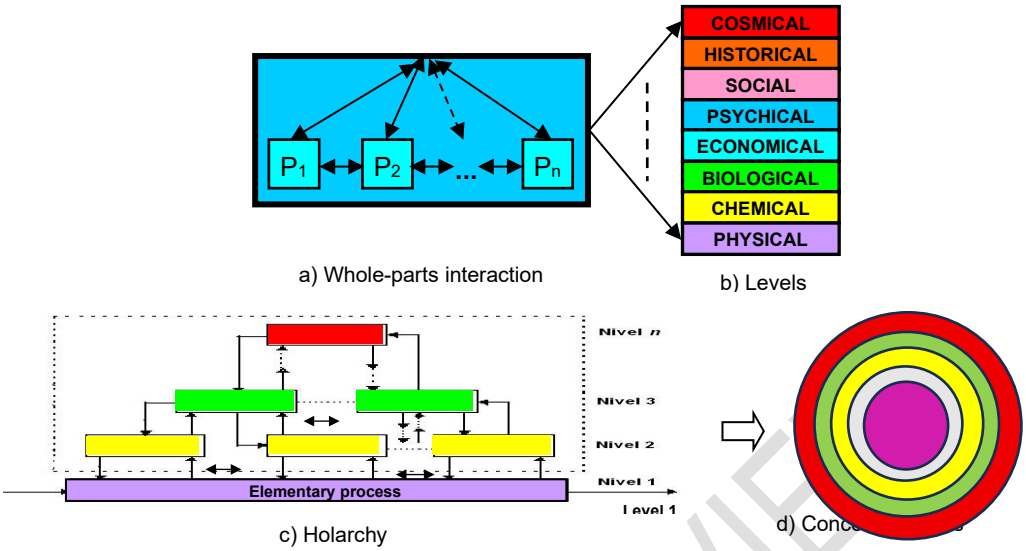
Figure 2.1. *Hierarchies of levels and of holons*



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The totality of scientific knowledge could be divided into several *sciences*. This division is not only epistemological, but rather corresponds to the existence of some autonomous ontological domains of the reality. Each of them could be described by specific elementary *components* and *structures* of components. Among the elements of each domain and among the elements and their ensembles, there take place specific interactions, which could be described (more or less rigorously) by quantitative laws or, at least, by specific qualitative rules.

This philosophic conception may be based just on the Aristotelian philosophy (of matter as substratum and of form as superstratum of reality), as well as on his logic (inspired by biology), of genres and species over the individual objects. The philosophy of levels was systematically developed by the Stoics. This idea was taken over by Descartes (1644, 1985), then by Hegel and A. Comte (1830-42), and, after that, by N. Hartmann (1953), R. Poli (2001), M. Bunge (2005) and M. Espinoza (2022). The ideas of hierarchical systems were also sustained by Whitehead (1929, 1970), having as one of his sources the theory of logical types, of Whitehead and Russell (1910-1913, 1963). It was brightly taken over by H.A. Simon, Nobel Prize for economics (1962).

The scientific theory of the levels was also sustained in physics by J.-P. Vigier (1961), in biology – by A. Koestler (1964), L. von Bertalanffy (1968), N. Eldredge (1985), S.N. Salthe (1985, 1993), S. Okasha (2006), in economics – by K. Marx (1966-1991), M. Mesarovic et. al. (1970), M. Giampietro (2005), and in sociology – by G. Gurvitch (1958), U. Bronfenbrenner (1977), R.K. Sawyer (2005).

For Hegel, the interpretative framework of the conception of multilevel reality (chosen here by me) is implicitly justified just by himself. In the *Introduction* to the "Philosophy of Nature" (in the addition to §252, a number absent in translation), after listing the division of the book according to the sciences corresponding to the domains of reality (mechanics, physics, organics), Hegel states: "Each stage [*Stufe*, level] is a

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specific realm of Nature and all appear to have independent existence [*für sich*, for-itself], but the last [the life] is the concrete unity of all the preceding ones, just as, in general, each successive stage [level] embodies [*an ihr*, in-itself] the lower stages [levels], but equally posits these, as its non-organic nature, over against itself. One stage [level] is the power [potential] of the other, and this relation is reciprocal [*gegenseitig*]. Here can be seen the true meaning of powers (*Potenzen*)" (PN 27 §252). The texts in square brackets are clarifications added by me (following the original German text), but the first meaning of *Stufen* is indeed "level". This, after that the translation states, a few pages earlier, precisely that "Idea is present in every grade or level [*jeder Stufe*] of Nature itself" (PN 14 §247).

The Morphosynthetic Method

The philosophical and scientific works of Hegel are among the most extensive and complex in their fields. Their overall structure and details are difficult to grasp and understand immediately, so I thought that approaching them with the help of graphic representations, accompanied by an appropriate hermeneutics, might facilitate this endeavor. The task is difficult, because it involves modeling written works by graphic means.

The simplest and most intuitive representation of these multilevel structures is by graphs, in the form of trees, but with the root up and the branches down, in which the relationships between the components on the same level remain implicit. However, between, on any level, may be connections between the nodes of the tree in that level (which form networks) or even in other levels, so that Koestler said that arborisation and reticulation are the architectural principles of complex systems (Koestler 1976, 94)

If we combine the graphic representation of the whole (in interaction with its parts) with that of the levelling of the reality domains, we obtain a hierarchical tree (from upward to downward), of a ***holonic hierarchy***, which Koestler named ***holarchy*,** like the concentric levels, in Figure 2.1c.

I will try to rely the graphic representation on the multilevel approach to artistic works developed by the Polish aesthetician and philosopher (of phenomenological background) Roman Ingarden, from 1931 to 1970 (1931, 1973). Ingarden distinguishes a four-level (layer) structure in literary works: phonetic-lexical, meaningful (word, sentence, phrase), object targeted or represented, imagined object (visual, auditory, tactile). If characters with their own literary discourses appear in the work, four additional layers are attached to them.

With regard to pictorial works of art, Ingarden asserts in another papers that a picture is an intentional object, created in the mind based on the image in question, omitting some aspects but adding others related to the "sensitivity of the soul" and its culture. Of particular interest is the structure of the painting, in which Ingarden distinguishes three layers: the image reconstructed through painting (deciphered according to certain rules of perspective, color, and others), the reconstructed material object, and, finally, the "literary" theme (I would rather say "narrative," referring to a historical or cultural event). Ingarden developed similar concepts for architecture, music, and film.

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We cannot provide an exegesis of the entire work of the Polish aesthetician here, but I would like to add a few remarks. In literary works, it seems to me that, above the meaningful layer of the sentence, a layer of overall composition should be added, which goes beyond the linguistic layer itself. This is necessary for more complex literary works (or cycles of works, as in Balzac), as well as for those studied here.

If we compare this stratification with the four meanings that Dante distinguishes in a literary work and which can only be reached gradually (1903, II, 1) – literal, allegorical, moral, and anagogical (oversense) – it appears that Dante lacks the lexical level (perhaps because it is too common), while in Ingarden the allegorical meaning is divided into targeted and imagined objects, but in return the moral and the anagogical are missing.

Our *morphosynthetic method* attempts to give a graphic form to the structure of ideas in complex works, in a synthetic and intuitive way. In practice, it seeks to establish a correspondence between the imagined or anagogical layer of the written work and an image that takes up the names of the main ideas (especially through the text of the titles) from the content of the works (a phenomenal manifestation) and arranges them in a graphic structure (also phenomenal) corresponding to the essential anagogical meaning. Of course, this operation requires knowledge of the work and an adequate hermeneutics of it, starting from the inside out. It often allows the discovery of an originary phenomenon, such as Goethe's "Urpflantze" (2009).

The structure obtained in the end (and here I am referring more to the relatively linear one) is in fact modularized on several levels, so that it allows for controlled expansions (detailations) or contractions (concentrations), as the metamorphosis of holons.

After constructing the graphic structures, a morphological analysis follows, through which similar sequences and their modifications can be identified, which can lead to meaningful interpretations of content. Similarly, diagrams of different works, by the same author or by others, can be compared relatively easily. Thus, correspondences between their parts can be established, in terms of form or content, which allow similarities and differences to be revealed, enabling a more adequate and nuanced understanding of the ideas contained therein. Therefore, a closed process of adapting the graphic form to the content and vice versa is established. The content manifests itself in form, and the form reveals the content, becoming an expressive form that somehow approaches art.

For the works we are discussing here, which have very rigorous structures, the most suitable form for diagrams was, not coincidentally, some hierarchical network (in fact, a variety of hierarchical tree structures), with parts of the works as nodes, delimited by the authors themselves through titles (which reduces the subjectivity of the modeling). We will see that the internal structure of these philosophical and scientific works is itself hierarchical. Unlike the sequence of these titles from top to bottom in the contents of the books, in our diagram it will be from bottom to top, in which the mutually correlated parts will be placed in boxes on the same level, and the successive ones on different levels. Figure 2.2 contains such a diagram (but reduced in size to fit on the page of the journal) from Hegel's work “The Phenomenology of Spirit”, and a reduction is given in Figure 3.1.

If we also introduce broken arrows in the initial diagram, from bottom to top

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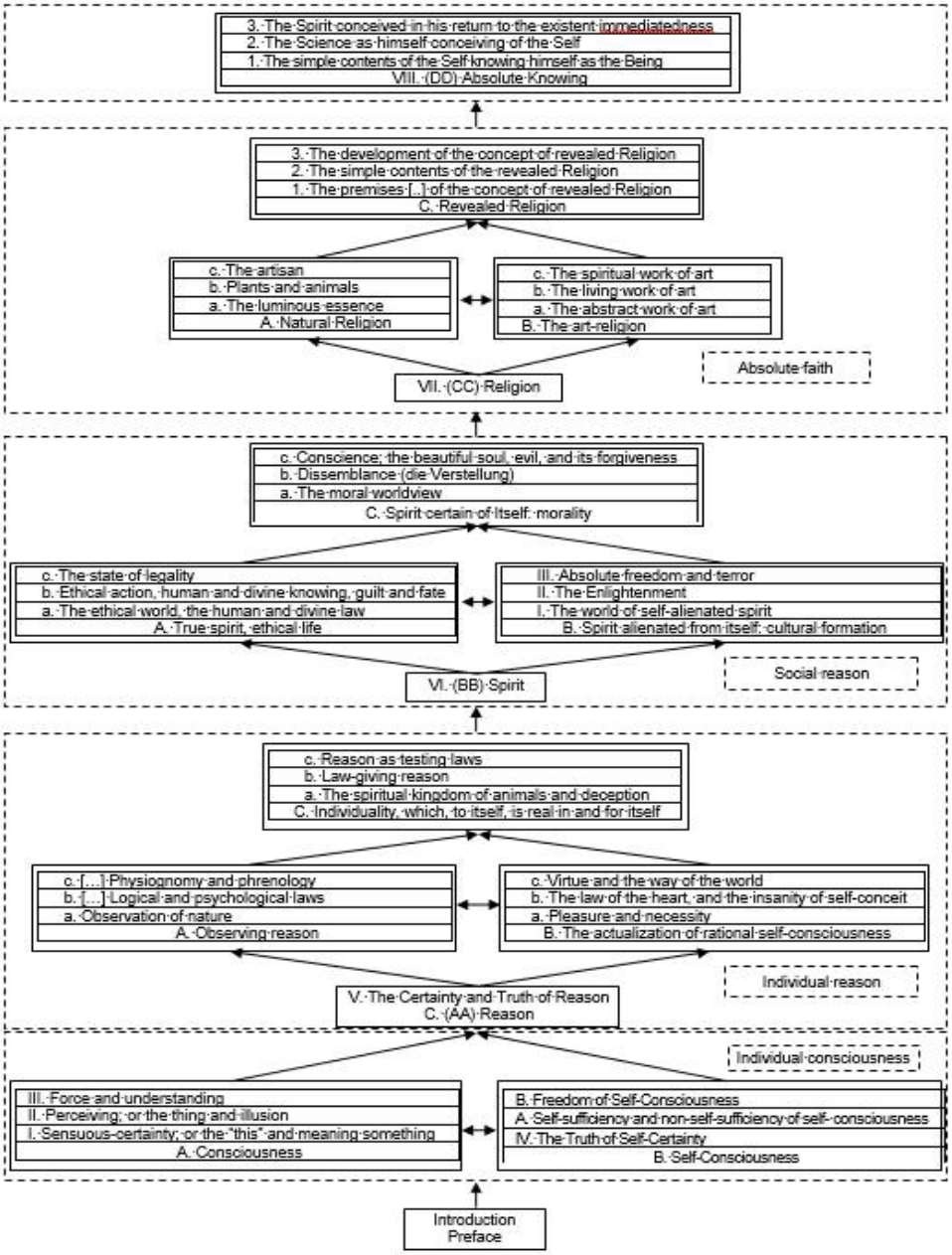
(indicating an influence or affiliation of content/meaning), in addition to the continuous arrows, the hierarchy becomes a network, or the broken arrows and the respective boxes can be represented as another hierarchy (as in Figures 3.2 and 3.3).

Figure 2.2. *Extended diagram (reduced size) of the "Phenomenology of spirit"*



Source: Author's own conception

Starting in 2001, I published several papers on the philosophy of science (especially economics) and of the multilevel reality, which contained various schematic representations (Popovici 2001, 2014a-2014d, 2016, 2022). Finally, I arrived at the present formats, first with all the detailed content, and then with two increasingly concentrated forms (plus other structures, this time circular). I thus

represented all the main books by Hegel and Comte, as well as the four volumes of "Capital" (plus the "Contributions..."). I analyzed the scientific and philosophical ideas contained in these works, in a study of over 150 pages, which is part of a book prepared for. publication. I have also used similar diagrams to the study of Dante, Balzac and Baudelaire.

Later, I discovered two diagrams by Andy Blunden in the Marxist Internet Archive (https://www.marxists.org/reference/archive/hegel/help/diagrams.htm), with the main concepts from Hegel's "Encyclopedia" — interesting, but too brief for what I was looking for. In the summer of 2025, I found four posters, created by Martin Grimsmann and his colleagues (https://hegel.net/en/e-poster.htm) with triangular "mosaics" for some aspects or works of Hegel, but they were too complex and difficult to follow and handle.

Structure of Hegel's Works

The bibliography of writings on Hegelian philosophy is immense. I will cite here only a few books in English (hopefully the latest editions), grouped according to their subject matter: "Phenomenology" — J. Hyppolite (1979), A. Kojeve (2014), K.R. Westphal (1989), H.S. Harris (1997); "Logic" — J. & E. McTaggart (1910); "Phenomenology" and "Logic" — J.B. Baillie (1901), W. Kaufmann (1978); "Philosophy of Nature" — S.S Hahn (2007), T. Pinkard (2010); "Philosophy of Spirit" and society — H. Marcuse (1940), G. Lukacs (1975); dialectics — B. Croce (1907), T. Pinkard (1988), T. Adorno (2017).

"The Phenomenology of Spirit"

In "The Phenomenology of Spirit" (1807, 2008), which is his first epistemology, Hegel starts (as Descartes did) with the subjective, individual conscience and followed its movement in time and space, from the perception to the conscience of the (total) *Absolute Knowing*.

The *Introduction* states the purpose of the Hegelian system — to bring philosophy closer to the form of science. Science is the totalization of the becoming of truth, of the results and the paths that led to these results. Truth is the becoming of all knowledge as a whole. This results in the need for a philosophical system (as the totalization of the whole truth about the world) and a method that is not external and different from the system, but given by the structure of the system and the relationships between concepts. The content of "Phenomenology", as the first part of the system of science, is the becoming of knowledge, of a generic consciousness, of a universal individual and of the social-historical consciousness — the *Spirit* (tracking the dialectical relationship between individual, particular, and general).

In Figure 3.1, this metamorphosis is represented by a pyramidal structure (whose extended form is shown in Figure 1.4), based on the opening sections and topped by the final chapter.

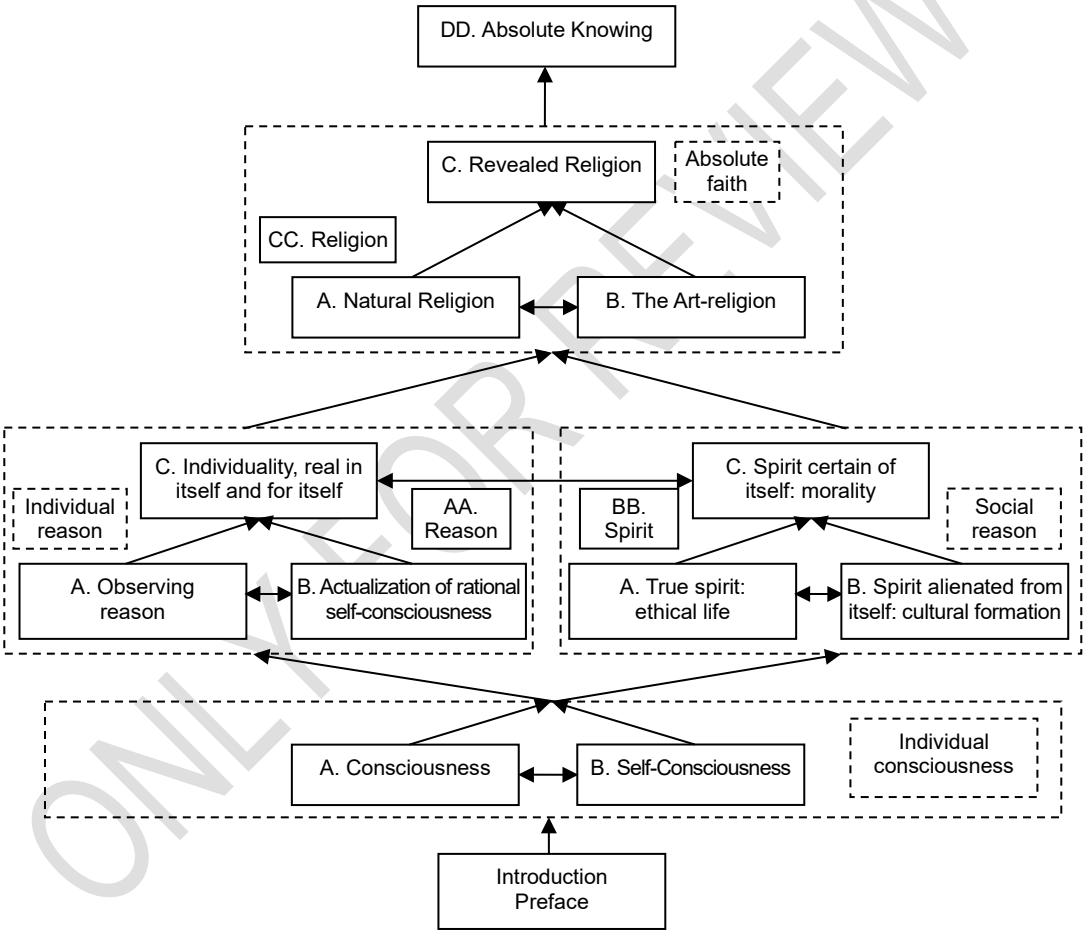
A. Consciousness contains a critical analysis of the human individual's daily experience with the physical world and, at the same time, of the philosophies of

UNDER PEER REVIEW

Kant, Fichte, and Schelling. A new law (this time dialectical) emerges, that of the non-identical becoming of the identical and the identical becoming of the non-identical. The world unifies through the internalization of opposites and becomes infinite (non-finite), that is unconditioned externally (because it contains every transformation).

B Self- consciousness is the result of thinking this contradictory world and the separation of human beings from the world. Furthermore, through action and work, man knows however himself as a soul with power over nature, but through the natural means he must use, he also recognizes himself as an objective thing, therefore — as a material-spiritual being.

Figure 3.1. *Diagram of the "Phenomenology of spirit"*



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AA. Reason is, on the one hand, within the subjective idealism, the certainty of consciousness of being the whole reality. Hegel resumes his analyses of common consciousness, but starting from rational experiments and theories of particular

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sciences, regarding human interactions with nature and other humans, synthesized in the individual conscious of himself and the world.

Observing Reason initially wants to know the nature empirically (passively), and Hegel studies its research methods (classification, experimentation, legislation, and the metaphysical "materializations" of qualities). Ultimately, it follows that any physical experience (whether scientific or common), in order to be understood, must be transcended through a more or less rigorous "metaphysics".

Rational self-consciousness is that which has become aware of one's social nature.

BB. Spirit expands individual knowledge, transforming it into social consciousness. The object of thought is no longer nature, but society, and the subject is the ensemble of humans, sharing and confronting their results.

CC. Religion, as a unification (through an allegorical sentimental representation) of the limits of rational knowledge and the contradictions of moral duty, manifests itself first in the primitive worship of natural forces (as in fetishism), then in the glorification of human physical beauty (in Greek polytheism) and in the unity of nature and man (in the Christian religion).

Finally, *DD. Absolute knowledge*, completes, through humanity's self-awareness, the unlimited but only implicit truth of revealed religion and the explicit but limited truth of social reason.

The entire work has a ternary architecture. In Figure 2.1, triangular substructures can be noticed between the component modules and within them, indicating relationships between opposing epistemological statements (thesis-antithesis) and culminating syntheses. The central part has three sections (AA-CC), each with three components (A-C), and the two components (A, B) of the first section, referring to the individual consciousness, are complemented by the final section *DD, Absolute Knowledge*, which is in fact their conclusion.

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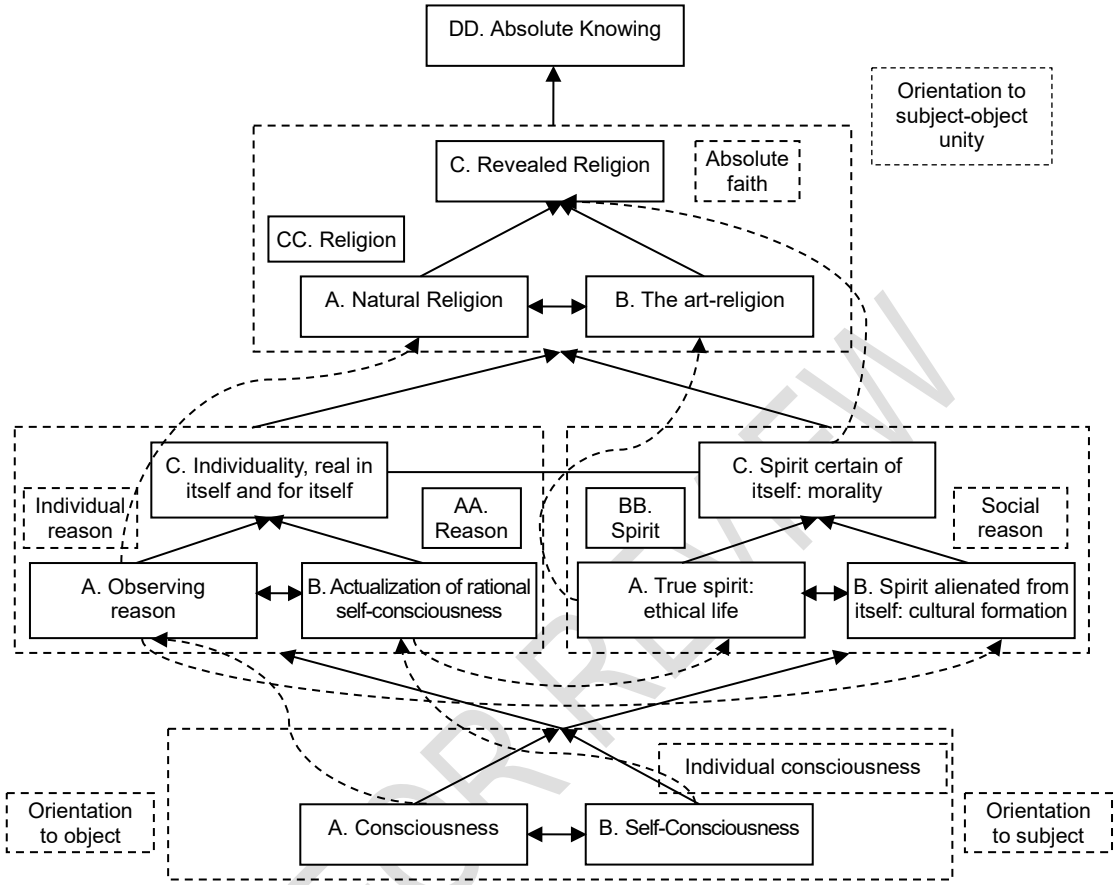
Figure 3.2. *Connections of the knowledge orientations, in the "Phenomenology of spirit"*



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Within the philosophy of multilevel reality, we could interpret each horizontal group of boxes in Figure 3.1 as designating a level of consciousness, starting with the base: the consciousness of the daily experience of separate individuals, then the rational knowledge of individuals and society, religious sentimental representations, and finally, the scientific-philosophical knowledge of synthetic totalization. The arrows indicate only the influences from bottom to top between levels (but there are also some inverse ones), as well as the interactions internal to each level.

We realize that the development of knowledge in "The Phenomenology of Spirit" is achieved through a constant oscillation between its orientation towards the known object (the external world) and that towards the knowing subject (the internal world). The first begins with the section on *Consciousness*, passes through *Observing Consciousness*, and ends with *Natural Religion.* The second starts with *Self-Consciousness*, continues with the *Realization of Rational Self-Consciousness*, and arrives at the *Art-Religio*n. The two unilateral tendencies are synthesized in the stages in which complete knowledge of the subject-object unity is gradually achieved: from *Real Individuality* to *Morality* and *Revealed*

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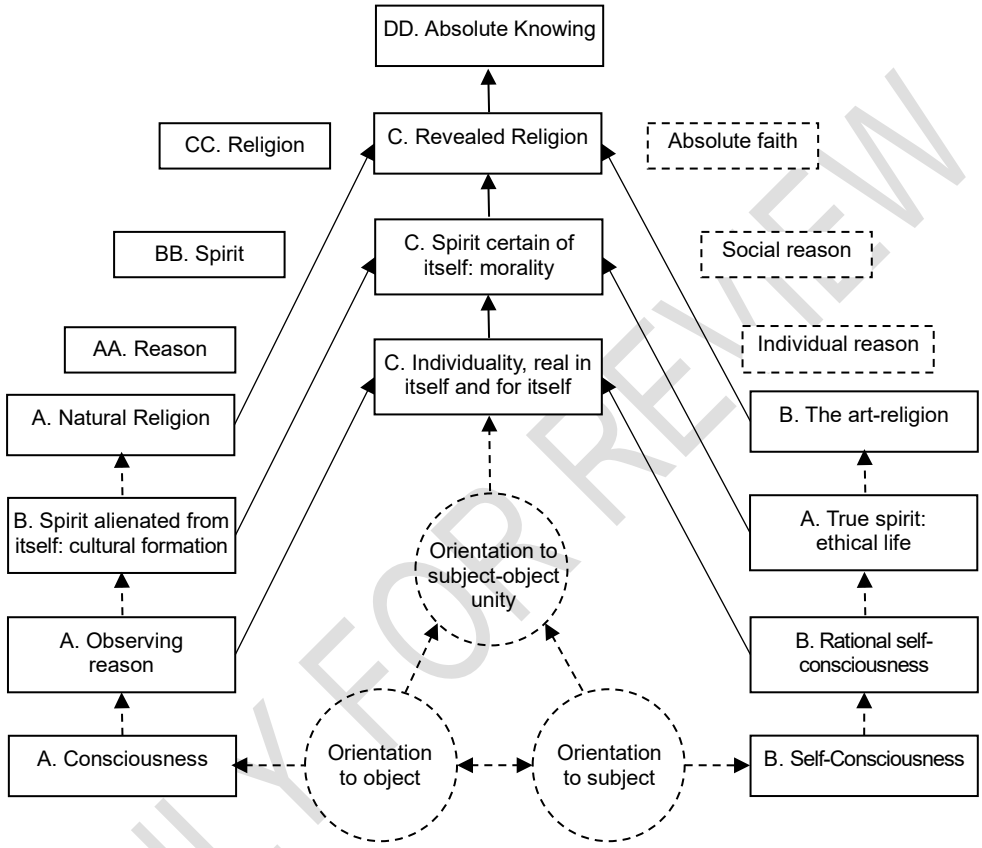
Religion, culminating in *Absolute Knowledge*. We have represented these connections in Figure 3.2 (in which I have no longer included the preface and introduction), starting from Figure 3.1 and adding broken arrows.

To clarify the structure of these connections, in Figure 3.3 I have kept them in the foreground. The central pyramidal structure constitutes the Goethean " Urphänomen" (originary phenomenon) of the "Phenomenology".

Figure 3.3. *The process of knowledge, in the "Phenomenology of Spirit"*



Source: Author's own conception

Taking into account the horizontal interactions from Figure 3.3, we would obtain a zigzag connecting the left with the right, and an image of a dynamic structure, indicating the permanent alternation of knowledge between the two orientations—to the object and to the subject— in a process that converges (through their unification) towards the absolute knowledge, starting from individual consciousness and passing through social consciousness (the spirit).

This process can be seen as a dialogue between man and nature, who ask each other questions and give answers: man – through experiences and theories, and nature – through riddles or difficult situations and challenges (sometimes, of life and death, like in Oedipus and the Sphinx).

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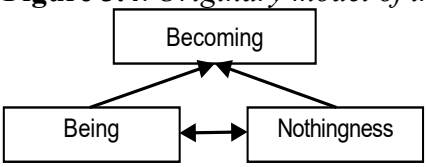
"The Science of Logic"

"The Science of Logic" (1812-1816, 1831, 2010) represents the ontology of Hegelian philosophy, in which the categories from Aristotle's "Metaphysics" are revisited, updated, and developed as a result of the evolution of modern science. While "Phenomenology" had a dynamic aspect, "The Science of Logic" presents itself as a systematic structuring of the results of knowledge, his logic being not of forms, but of content.

The orientations are the same as in "Phenomenology," and it begins with *Objective Logic* (consisting of two books, devoted to the categories of *Existence* and *Essence*, respectively). Here, the approach is one of maximum generalization: the results are gradually extracted from reality, but they refer to all of its fields, and in many remarks their more concrete applications are discussed. Even in the second part, *Subjective Logic*, of the forms of thought, the rules for using categories are imposed by the restrictions of objective reality, so that, in the end, a concordance between subject and object is achieved.

Figure 3.4. *Originary model of thesis-antithesis-synthesis*



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The *Introduction* shows that logic must be the known (subjective) law of the (objective) world and of the knowing subject. Within it, concepts contain their own negation, so dialectics is internal to logic, which ensures its completeness in terms of content, but also of method, since it also includes the principle of error correction. The essence of his method would consist in the negation of negation, as a synthesis of thesis and antithesis (SL 33).

The first book, *Being*, begins with the simplest and most immediate aspects of reality, pure *being* and its negation, *non-being* (*nothingness*), which pass one into another and are united in *becoming*. We can say that this triplet, as thesis-antithesis-synthesis, is the originary phenomenon of Hegelian logic (see Figure 3.4). They develop into determinations of *quality* (differences in properties) and *quantity* (numerical differences between identical things), then reunited in *measure* (numerical differences of a certain common quality). The ensemble of measures physically characterizes the object. The total diagram is given in Figure 2.5. Everywhere in this diagram, the arrows mean ontological processes, not epistemological statements, as in "Phenomenology" (but, of course, the last ones are also being discussed).

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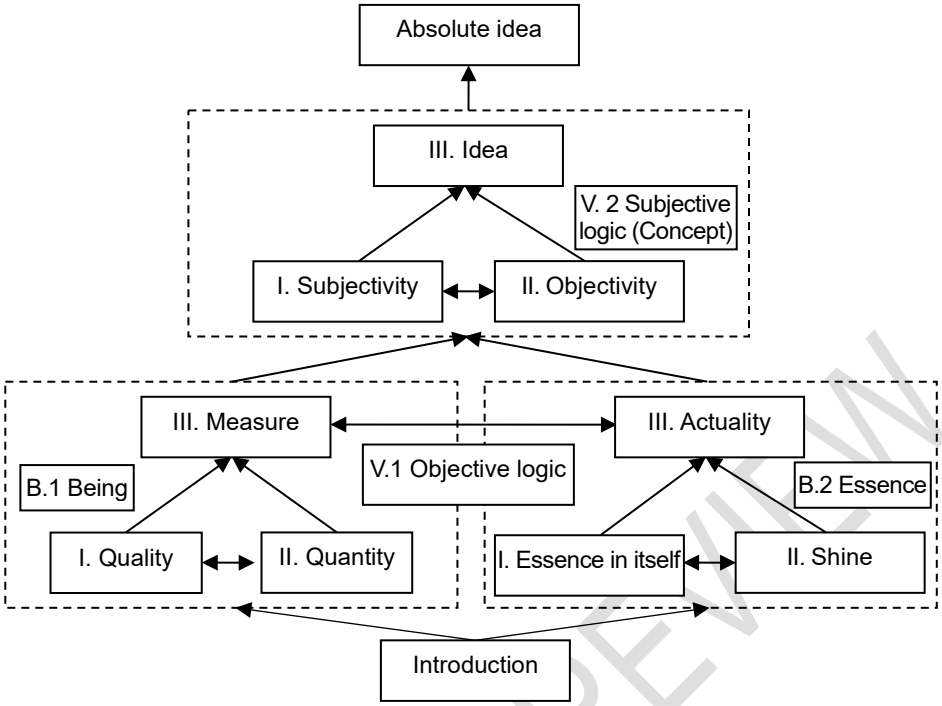
Figure 3.5. *Diagram of "The Science of Logic"*



Source: Author's own conception

In the second book, *Essence*, this is the truth of the existence of objects, behind their appearance. Essence is first simple identity with itself, then difference from other essences, and finally contradiction (opposition to other essences and consolidation within itself). It manifests itself as the *ground* and *content* of things, which are generated by essence, once the conditions for their existence are met. *Shine* is the phenomenal aspect of things (as a form of their content), which appears as a set of properties, united with each other and with essence, through *essential relations*, determined as *forces*. *Actuality* (effective *reality*) is the unity of essence with appearance and manifests itself through relations of *necessity*, *substantiality*, *causality*, and *mutual action* (interaction, even between essence and phenomena), the latter foreshadowing the freedom of life.

From the perspective of the philosophy of multilevel reality, essence (ground) can be viewed as a basic level, and appearance — as a higher level (such as atoms and chemical combinations, respectively, and reality as everyday physical objects). Quantity is the sole determinant of identical parts (e.g., atoms) in a level, quality — the possible similarity or difference in properties, and measure — a simple external quantitative comparison.

The third book, *Subjective Logic* (*Concept*), begins with a *Foreword* (not shown in Figure 3.5) explaining the meaning of the *concep*t as the potential result, in consciousness, of the subject's adequacy to the object. In *Subjectivity*, logic manifests itself through isolated *concepts*, *judgments*, and *syllogisms*. Also from a multilevel perspective, syllogisms appear as relationships between general, particular, and singular, as well as operations with two-three successive

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levels (not abstractions, but concrete realities), or as genus and species, as with individuals of the species or even of a "variety" (not necessarily organic), or parts of the entire.

In *Objectivity*, reality appears as *physical mechanism*, *chemism*, *vitality*, and *living individual* (human), the latter being characterized by teleology and ideational knowledge.

Absolute idea is the complete truth, a synthesis of theoretical and practical truths, using the dialectical method developed throughout "Logic". Negativity appeared as the internal motor of any movement, the basis for overcoming the subject-object opposition. A first fundamental negation is the subjectivization of the object (as in ancient metaphysics), and the second is the objectification of the subject, therefore the adequacy between subject and object — the pursued truth.

In "Logic", the ternary structure is evident: the work contains three books, each with three sections comprising three chapters, with a total of 27. I have shown that these divisions originate in the triad of being-nothingness-becoming, which is then reflected in the dialectic between the parts and the whole. All chapters begin with the parts of the respective level, continue with the interactions between the parts, and arrive at the new properties of the whole (part, in its turn, of the higher level), in triangular groups, as Hegel stated in the *Introduction*, and the classification and hierarchy of sciences conforms to the increasing complexity of levels in the objective reality.

Correspondences can be found between the categories of objective logic and the sciences of the subjective one: quantity (measure) and mechanism (physics), quality and chemistry, dialectics and biology, essence (phenomenon) and syllogistic logic (general-singular).

It can be noticed that, compared to "Phenomenology", the oscillation between the object-oriented and subject-oriented knowledge is much easier to follow in "The Science of Logic", so that we do not need to mark it, as in Figure 3.5, but can be represented directly, as in Figure 3.6. Here, I have even given it the form of a sine wave (as for a damped oscillation) simplified by straight segments, converging towards the absolute idea (the synthesis between subject an object — ontological, but also epistemological). I believe, like other commentators, that the orientation towards subject still predominates in the first work (despite the apparent balance in Figure 3.3), but it is clear that the one towards object is overwhelming in "The Science of Logic", the goal remaining the same.

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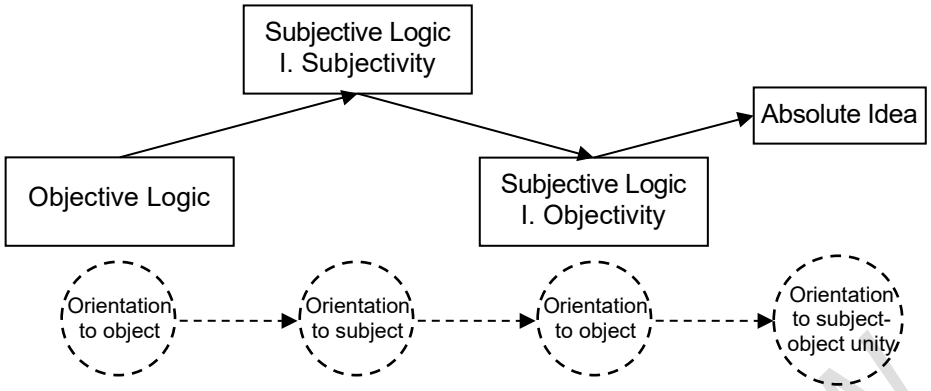
Figure 3.6. *The process of knowledge, in "The Science of Logic"*



Source: Author's own conception

Encyclopedia of Philosophical Sciences

In the 1812 *Preface* to "The Science of Logic", Hegel announced that, in addition to phenomenology and logic, his philosophical system would include a philosophy of nature and a philosophy of spirit (society). While the latter was partially developed in "Principles of the Philosophy of Right" (1821), the one on nature was not dealt with elsewhere, but here it is impressive, as the volume "Science of Logic" and almost double that of the other two, which shows that, for Hegel, nature enjoyed equal attention to culture, not as is usually believed, especially among humanists. "Encyclopedia" was printed in 3 editions (1817, 1827, 1831).

"The Logic of Encyclopedia"

The first part of the "Encyclopedia" was also called by Hegel "The Science of Logic", but here we will refer to it as "Logic of Encyclopedia" (while others call it "Shorter Logic"). Its content is practically the same as of the other "Logic" (but summarized). For this reason, we will provide neither the diagram of the volume, nor the outline of its contents It also includes the *Prefaces* to the three editions, as well as an *Introduction*.

In the second *Preface* (1827), Hegel reaffirms that the goal of his philosophy is "the scientific knowledge of the truth", but not through their finite and abstract concepts, nor through the language of sentiment and religious representations, but through the concrete and synthetic scientific concepts of the totalizing philosophy, which find the profound justification of the others.

"The Philosophy of Nature"

"The Philosophy of Nature" is the part of the "Encyclopedia" that is closest to the results of the positive sciences. M.J. Petry's *Introduction* to the translation in 1970, shows the importance of the ideas of level and sphere in this part of the "Encyclopedia," as well as its connections with medieval philosophy and 20th-century science. Unfortunately, I read this exegesis only after the present work was almost finished, but I am glad to be in agreement with him (even though he

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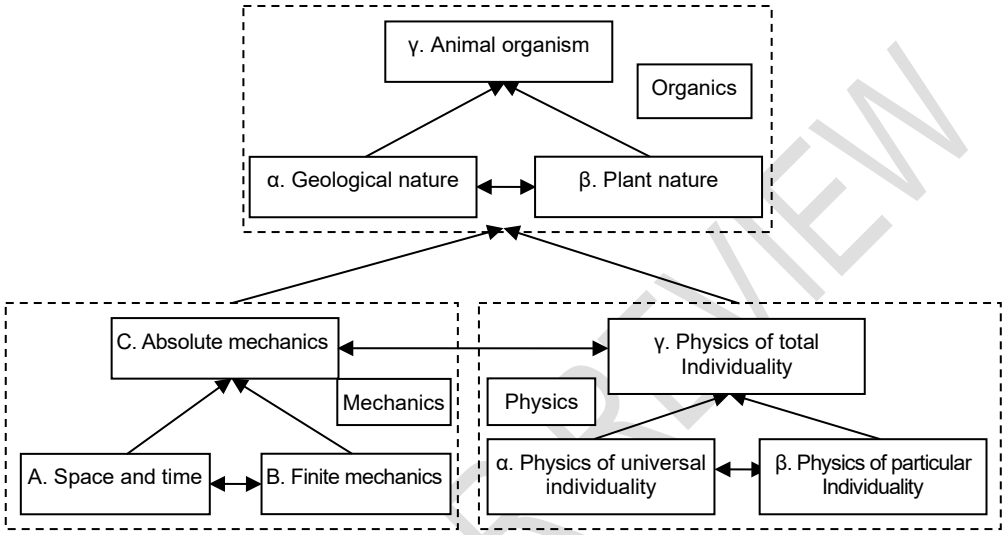
does not mention Comte, Koestler or holons).

In the *Introduction* (which is missing from the figure), Hegel proceeds to the classification of the natural sciences into three groups, according to the properties of bodies: mechanics, physics, and organics (today's biology).

The third section, *Organics*, is the most important part of the “Philosophy of Nature”. Here finds Hegel his ideal domain, that of relational structures and fundamental transformations, which served as a model for his entire system.

Figure 3.7. *Diagram of "The Philosophy of Nature"*



Source: Author’s own conception

The animal organism appears as singular (both in its immediate external appearance and in its differentiated internal structure), but also universal (in the functions of its organs). The *structure* indicates the functions of the corresponding organic systems, as well as their cooperation in the overall configuration and process of its existence.

Regarding the general structure of the "Philosophy of Nature" (as a whole — oriented to object), it is easy to see that the sequence of sections follows that of the *Objective Logic* in the "Science of Logic" or " Logic of Encyclopedia" (the human individual being explored in the "Philosophy of Spirit"), according to the increasing complexity of the levels of reality and sciences. On the other hand, within each section, the sequence is from the general to the particular, then totalized (synthesized) in the concrete concept (as can be seen more clearly in the chapter titles of *Physics*, in Figure 3.7), according to the meaning of the syllogisms in the *Subjective Logic*, reflecting the dialectics between parts and whole.

Limiting ourselves to the connections between chapters, we could indicate them with broken arrows, as in Figure 3.2, and then rearrange boxes, as in Figure 3.3. Centrally, at the base of the pyramid, would be the general-particular-total triangle, on the left and right, vertically – the first and the second chapters of each section, respectively, centrally above – the third chapters, and at the top,

ONLY FOR REVIEW

while in place of absolute knowledge would be its concrete creator — the Man (the human species). This pyramid shows us not only a static hierarchy of reality levels, but also the direction of the natural evolution (physical-vegetal-animal-human).

On the horizontal levels (general ↔ particular), we can imagine (according to Hegel himself) the process of intraspecific selection, and on the resulting zigzag (left-right and bottom-up) — the ecological determinism between the physical, plant, animal, and social environments. Since each of these levels has a relationship of metabolism (assimilation-disassimilation) and interaction with the lower levels, the unidirectional arrows (from bottom to top, ↑) should be replaced with bidirectional ones (↕), resulting in an image similar to the natural ecological chain (autotrophs-heterotrophs-predators/omnivores), in the contemporary biology.

"The Philosophy of Mind" [Spirit]

"The Philosophy of Mind" [Spirit] is, in fact, as we have seen in "Phenomenology", a philosophy of social reason and the structures in which people organize themselves, in order to interact and cope with the challenges of nature and of other human beings. It consists of three sections, preceded by an introduction (which I have omitted in Figure 3.8). We must be careful that, in "Phenomenology", Reason was individual, and Spirit — exclusively social, but here Spirit can be subjective (i.e., individual) or objective (i.e., social).

The first section, *Subjective Spirit*, describes the primary, elementary stage of its development, summarized by Descartes' "I think, therefore I am." Through it, Hegel seeks to replace the criticized scientific psychology, but also to surpass himself, the author of the "Phenomenology", who totally denied the validity of the naturalistic study of man.

The third chapter, *Psychology*, deals with the stages of the development of the *individual spirit*: *theoretical* (which makes its determinations subjective); *practical* (whose content is its own will) and *objective* (or collective), freed from subjectivity and exteriority through the synthesis of reason and action).

The second section, *Objective Spirit*, is devoted to the collective (social) consciousness, which aims to unify individual will with rational will, in order to achieve effective freedom. Hegel took the contemporary society as his subject of study and developed this section in his "The Philosophy of Right" (1821).

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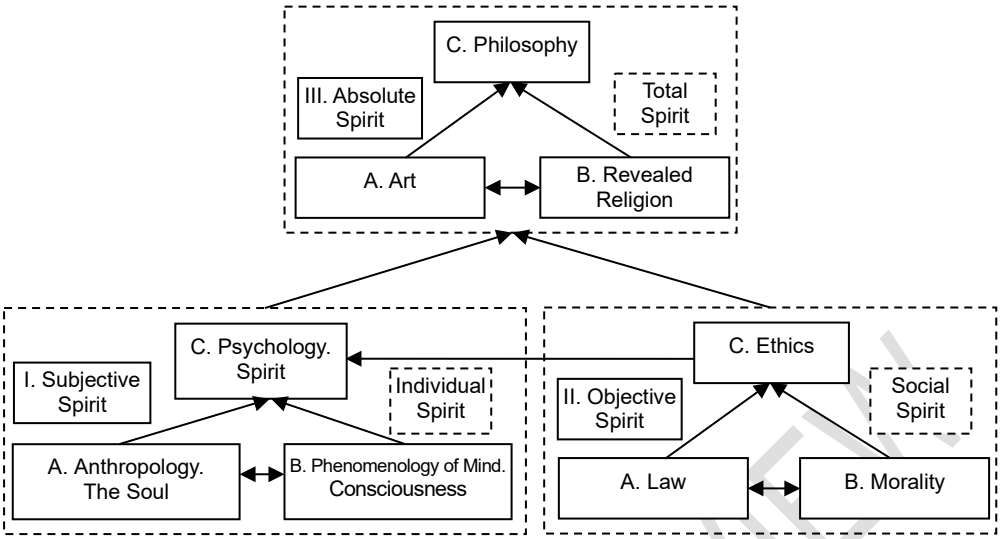
Figure 3.8. *Diagram of "The Philosophy of Mind" [Spirit]*



Source: Author's own conception

The third section, *Absolute Spirit*, briefly deals with art, religion, and philosophy, as the culminating achievements of the synthesis of the individual spirit with the social spirit. *Philosophy* is the unification of artistic intuition with religious revelation, through self-conscious and free thought. The concept of philosophy is the self-knowledge of the idea, the truth that knows itself; it is the universality that is verified in concrete content, as one of its actualizations, and the activity of intellectual knowledge is the highest form of life (§§572, 574, 576). As can be seen, Divinity would go through all the stages of knowledge previously described by Hegel, and philosophy seeks the unity between the concrete of objects and the subjective abstraction of ideas, so that it is the process of harmonizing them.

If, as a whole, "The Philosophy of Nature" was oriented toward the object of knowledge, "The Philosophy of Spirit" is oriented toward the knowing and active subject, toward the forms of consciousness, practice, and organization. The orientation of the investigation (which is also that of social reality) is an oscillation between the individual and the social (through knowledge and action), with their synthesis in increasingly comprehensive fields. The "methodological individualism" exists only as an initial work hypothesis, which is then superseded by the study of the integration of the person into various social structures. Here, we find the dialectic of interactions between social parts and wholes (of holons), as well as their hierarchies (holarchies), as defined at the beginning of this paper.

The structures and processes of "The Philosophy of Spirit" could be traced and represented, at the section level, as in Figure 2.6 (for "The Science of Logic"), but starting with the *Subjective Spirit*, or at a more detailed level, by chapters, as in Figure 3.3 (for "Phenomenology of Spirit" and even for "Philosophy of Nature"), using the individual-social-total triangle as a basic model, but we will not do it here.

ONLY FOR REVIEW

Instead, I shall try to show the correspondences that exist between “The Phenomenology of Spirit” and the ensemble of “Encyclopedia” (including “The Science of Logic”, as part of the latter). The resulting figure is too large to reproduce here.

We will continue to follow the orientation towards the object or subject and their unity, as we did above, so we refer to the indication of epistemological influences (going from bottom to top, through the components of "Phenomenology" and "Encyclopedia"). Thus, for the first orientation, from *Consciousness* and *Observing Reason* we arrive in “Logic” at *Objective Logic* and *Objectivity*, then at the "Philosophy of Nature" (inorganic and organic), and higher up — at the *Subjective Spirit*. For the subject-oriented approach, from *Self-Consciousness* and *Rational Self-Consciousness* we arrive at *Subjectivity*, *Animal Organism* and also at *Subjective Spirit*, whereas from the entire *Reason* (but without the alienated one) — at *Objectivity* and *Objective Spirit*. Finally, from *Religion* we arrive at revealed *Religion*, and from *Absolute Knowledge* – at the *Absolute Idea* (from *Idea*) and *Philosophy*.

Because "Phenomenology" is predominantly oriented to subject, most of the connections are made with "The Philosophy of Spirit," and a minority — with "The Philosophy of Nature". This network could be organized in a similar way to that in Figure 3.3, but with more section boxes on each level. I believe that the number and substance of these influences entitle us to consider "Phenomenology" as the "originary phenomenon" of the entire Hegelian philosophy (as the study of the other works would prove). Using these networks, it could be shown ("inductively," but without leaving Hegel's system) that the ideas of "Logic" have their ontological source in the sciences of nature and society (being, in fact, in a relationship of co-determination, of interaction).

“Encyclopedia”, through its three parts and their detailed structures, has the same ternary structure that we saw in “Phenomenology” and “Logic”, which may remind us of the divine trinity.

On the other hand, if we analyze "Phenomenology" from another perspective, sections A-B (Total Consciousness) have 5 parts, and AA-DD (Reason and Spirit) have 10, so together they have 15 parts, meaning that Reason and Spirit account for 2/3 of the total. Within A-B (A. Consciousness — 3, B. Self-consciousness — 2) the ratio is also 2/3, and between Individual Reason (AA) and Total Consciousness (also individual) — 3/5.

The 2/3 and 3/5 ratios take us further, to the Pythagorean musical scale and to the famous "Golden Section", which was used in the art works of the Antiquity and Renaissance. The Golden Section corresponds to the ratio Φ between the diagonal and the side of a regular pentagon, with $\Phi = (5^{1/2}+1)/2=1.618...$, which is an irrational number. Associated with this number is $\varphi=1/\Phi= (5^{1/2}-1)/2=0.618...$, where the sequence of decimal digits is identical to that of the value of Φ. The fraction 1/2=0.5 is a first rational approximation, but a poor one, while 2/3=0.666... and 3/5=0.6 are the first good approximations of φ.

In "The Science of Logic", if we analyze the internal structure of the triad as interaction between parts and whole, we see that the parts (thesis-antithesis) constitute 2/3 of it. At a higher level, "Subjective Logic" has 9 chapters, and

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"Objective Logic" has 18, so the ratio between them is 1/2, and the latter's share in the total is still 2/3.

We continue our analysis with „Encyclopedia", which is suitable for more precise calculations and less subject to arbitrariness, due to its division into many numbered sequences. Here, out of a total of 577 paragraphs, "Logic" has 244, "Philosophy of Nature" — 132, and "Philosophy of Spirit" — 201, their proportions in the total being 0.42, 0.23, and 0.35. Therefore, Spirit has about 1/3, and Logic and Nature — 2/3 of the total, which leads us again to φ. Further, however, we observe that Logic has approximately 2/5, and Nature and Spirit — 3/5 of the whole, an approximation that fits φ even better.

Hegel intertwined in all of these works the proportion of the pentagon with that of the triangle of the triad, perhaps searching (as a friend in his youth with Hölderlin and in his maturity with Goethe) a union between admiration for the antique beauty of the Vitruvian Man and Christian compassion for the crucified Christ. It is a synthesis that Leonardo and Raphael attempted during the Renaissance (but which I believe Dűrer succeeded in better), just as Goethe created Euphorion (as son of the medieval Faust and beautiful Mycenaean Helen), while Hegel united the metaphysical ontology of Aristotle and of the scholastics with Plato's dialectic.

Overall method and internal structure

Following the Cartezian ideas, the rigorous science is a philosophical one: total, systematical and ordered from simple to complex, as we have seen Hegel doing with his classification of the sciences. Hegelian *dialectical method* deals not only to the relationship between the determinations of objects, but also to their internal process of transition into their negation, thus being the soul of scientific progress. *Speculative* was the positive rational result (both concrete and conceptual) of the synthesis of opposing determinations, as well as of the three philosophical positions (metaphysics, empiricism, Kantian criticism) that preceded it, analyzed in the *Introduction* to the "Logic of the Encyclopedia" (SL 38, LE 67-125, §§26-77). Moreover, in contrast to Spinoza, he added: "In my view, everything hangs on grasping and expressing the true not just as *substance* but just as much as *subject*." (PS 12).

Furthermore, Kantian philosophy had highlighted the active role of the subject in the process of cognition. However, the Kantian criticism had closed knowledge between the boundaries of the self-conscience, refusing it the access to the actual thing (to the reality external to the knowing subject), but Hegel did not accept this confinement. "Inasmuch as it is said that *understanding*, *that reason*, *is in the objective world*, that spirit and nature have *universal laws* to which their life and their changes conform, then it is conceded just as much that the determinations of thought have objective value and concrete existence" (SL 30).

These two equally necessary positions explain the Hegelian method of alternating between the object-oriented and subject-oriented approaches

UNDER PEER REVIEW

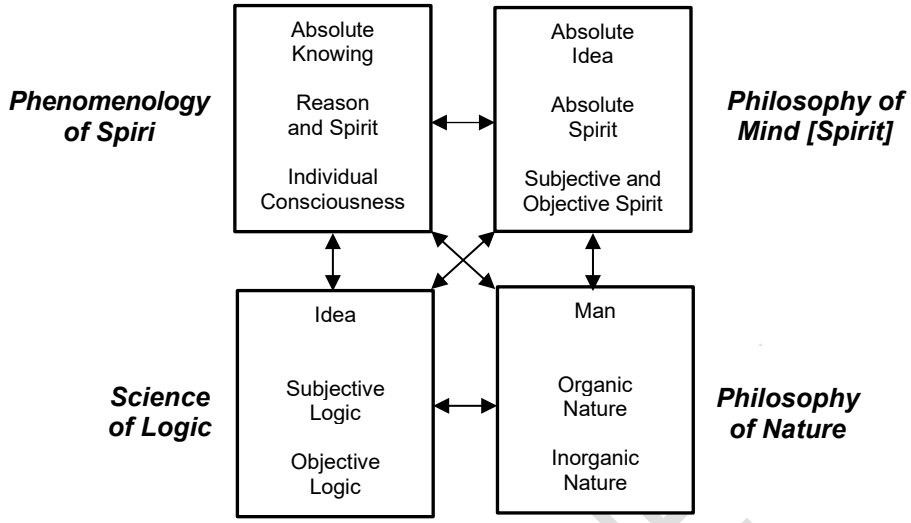
(indicated above, in the description of all his works), which converge towards their mutual harmonization — the absolute, totalizing truth. This implies not only an epistemological modification of the "image" of the object (obtained through observation and experimentation) and of the knowledge about it, but also an ontological change — of mental structures (individual and social) and of objective reality (through the action, especially productive, of the individual and society).

The revolutionary task of the Absolute Knowledge of Hegelian philosophy will be to break down the prison of the Kantian subjectivism, demonstrating the possibility of knowing the whole world and to confirm the ancient saying “est modus in rebus”, there is a rule (law) in things. This philosophy will be, at the same time, methodical rule and objective law. “Therefore, inasmuch as the science of logic deals with the thought determinations, … it will also be a reconstruction of those determinations which reflection has already abstracted and fixed as subjective forms external to a material content” (SL 19). We see that Hegel is not opposed to sciences, but to their artificial limits: “To participate in the collaborative effort at bringing philosophy nearer to the form of science […] is the task I have set for myself” (PS 5-6). Hegel wanted and, largely, succeeded to find out the secret of those laws (concrete, not abstract). According to his own criterion, the truth of the beginning is proved by the success of the end.

Despite some claims made by his opponents, I found no pretensions to eternity in his work, only confidence in its relative solidity and capacity for development. Here is what Hegel himself openly declared: “How could I possibly pretend that the method that I follow in this system of logic, or rather the method that this system itself follows within, would not be capable of greater perfection, of greater elaboration of detail? Yet I know that it is the one and only true method” (SL 33).

Hegel does not want the destruction of the classical logic, but rather its expansion and, in fact, a certain return to the realistic sources of the Aristotelian and medieval one. Hegelian logic is one of the content, just as the Cartesian deduction was, but a content provided by a preliminary scientific knowledge. “By thus introducing content into logical consideration, it is not the *things*, but what is rather *the fact* [*Sache*, problem], the *concept* of the things, that becomes the subject matter” (SL 19). It is, in fact, that "future metaphysics" foretold by Kant. The Hegelian science is the totalization of the becoming of truth, of the results and of the paths that led to the results (PS 5-6, LE 10), so that it has a structural side (of the relations and interactions within the totality) and a historical one (of the becomings of these totalities). Its access to reality is mediated by current sciences and their experiments, without which it would no longer have an object of study.

Figure 4.1. *Relationships between abstract and concrete works of Hegel*



Source: Author's own conception

"Phenomenology" described the evolution of individual experience of knowledge (following Descartes' "methodological individualism"), then revisited at the social-historical level, in a reconstruction purged of factual accidents (in fact, an "abstract" dynamic model, similar to J. Piaget's genetic epistemology). "Logic" reconstructs a systematization and interpretation of the results of all sciences, in which their concrete and historical side is "put in parentheses," and concrete-historical references exist only in the comments on each conceptual step. Therefore, being a higher-level generalization of the sciences (a meta-science), it is capable of providing a common conceptual framework for interpreting "regional" results (for different levels and sciences), but also for interdisciplinary research.

These capabilities are concretely verified throughout the "Philosophy of Nature" and the "Philosophy of Spirit," where the value of Hegelian approach of considering the interaction between levels, laws, and particular sciences becomes evident, especially for biological organisms, then between man and nature or between people, within social structures. The concepts of Hegelian logic appear as natural "extensions" (as in the theory of mathematical functions) of the generalizations that he himself analyzes in each scientific field, but also in the evolution of philosophy.

In Figure 4.1, the works at the base ("Science of Logic" and "Philosophy of Nature") are, as we have seen, "oriented to object" and the ones above ("Phenomenology" and "Philosophy of Mind") are "oriented to subject". The relation between logic and phenomenology is similar to that between nature and society, the relative stability of nature and logic (with the general, the particular, and the singular as "projections" of the genus, species, and individual) being in contrast with the dynamism of the evolution of social and cultural structures. Thus, just as nature was the *ground* (*essence* in "Logic", or fundamental level in the multilevel approach) of the Spirit (society), so "Logic" would be the basis of "Phenomenology" (possible, because levels exist in the cultural-spiritual

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creations as well, as we saw in §1.2). Just as reality is born through the interaction of essence and phenomenon, so the complete world reality is abstractly described by the synthesis of the two Hegelian works. Both are simultaneously epistemologies and ontologies and valid in nature and society (albeit in a specific, nuanced way).

Hegelian philosophy can be viewed as a second degree (or type) science (on a third level in relation to raw reality, compared to current sciences, which are on the second level), with corresponding laws, generalizations of current laws. The situation is similar to that of Einsteinian physics in relation to Newtonian one, which it denies and surpasses, but which it preserves as a limiting case. The levels of knowledge continue: common experience, intellect and classical logic, negative dialectical reason do not disappear with the development of positive (speculative) dialectical reason, but persist and develop, as speculative philosophy evolves (above the sciences and the other philosophical currents).

“Phenomenology”, “Philosophy of Spirit” and the historic writings of philosophy were preferred by the people with socio-human concerns, while his “Logic” – by those interested of scientific methods. Unfortunately, "The Philosophy of Nature" was rather neglected by both sides, perhaps because its sciences were (wrongly) perceived as outdated or due to the author's own overly radical criticism. As far as I am concerned, I share Hegel’s belief, that they are necessary and true only together.

Conclusions

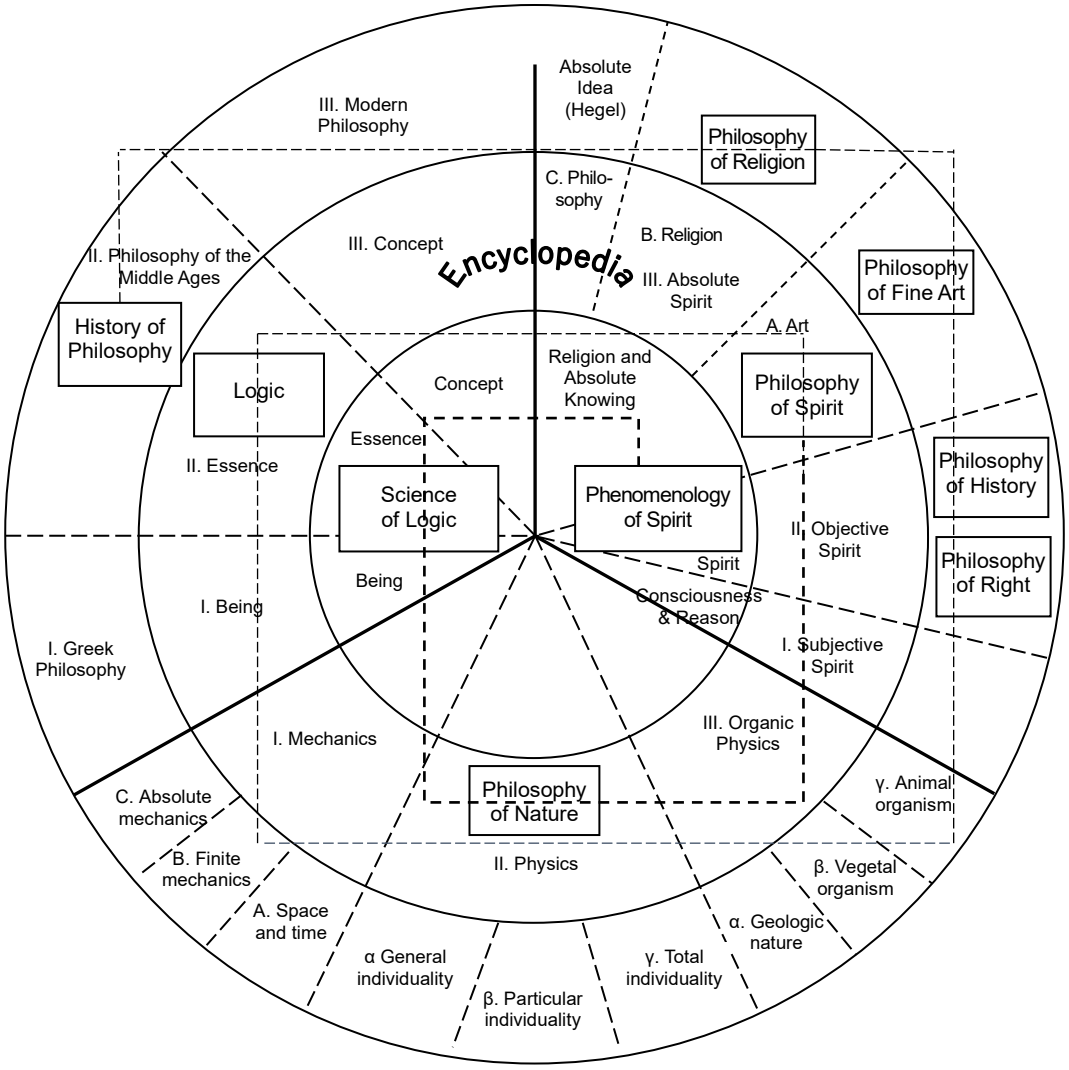
The structures of the works we have represented graphically do not only have a formal significance. “The method is nothing but the structure of the whole [the totality of the knowledge] in its pure essentiality”, Hegel states. “This nature of scientific [philosophical] method is inseparable from the content, and on the other hand, it determines its rhythm through itself, and it has, as has already been noted, its genuine exposition in speculative philosophy” (PS 29, 36), and the last one – just in “Logic”.

Let us summarize here the main points of the multilevel approach in Hegel's works, announced and justified at the beginning. In ontology, the main hierarchy consists of levels of reality, in ascending order of complexity (from physical nature to society), with common or specific laws. Then there are the levels within them (elementary mechanical or complex physical, organic kingdoms—vegetable and animal, social structures—from families to civilizations, and further—bodies, organisms, individuals, or even cells and atoms). All of these give rise to intra-level or inter-level (ascending and descending) interactions (which are nevertheless causal), which combine in processes that lead to the emergence of new properties at higher levels. Hegel gives priority to descending actions (as guaranteeing the power of human freedom over matter), but ends up accepting inverse actions (which ultimately support life and society).

In epistemology, the fundamental Hegelian trinity (thesis-antithesis-synthesis) reflects the dialectic of parts-whole interactions. The levels are

expressed through the appearance-essence relationship, then through the structure and functioning of syllogisms, and finally through the relationships between the special sciences, corresponding to the levels of reality, as well as between them and Hegelian totalizing philosophy, whose works have an architecture on levels, in homology with the epistemological and ontological ones.

Figure 5.7. *Organization of Hegel's structural and historical works in concentric circles*



Source: Author's own conception

Indeed, the structure of his work can be organized on several levels, indicated by three concentric circles (sections of spheres), as in Figure 5.7, divided into three main sectors (according to the "Encyclopedia"). We can incorporate "The Philosophy of Right" and the predominantly historical works into the third circular level and place them near the corresponding sections of the central works (whose developments are indeed organic-arborescent).

This figure shows more clearly that the organic world (and especially the animal world) precedes the human individual and society (logically, but perhaps also evolutionarily, as should be accepted in an ontological-epistemological philosophy), just as the succession of concepts in "Logic" follows (as Hegel tried to prove) the historical succession of philosophies. The position of the circles also shows us the sequence of stages in the growth of the works, which can be indicated in more detail by a simplified spiral, starting from "Phenomenology."

At the top of the last circle, I have also placed Hegel's Absolute Idea (of the total knowledge) as the crowning achievement of the modern philosophy that preceded him and of his own work.

Hegelian philosophy was a revolution in thinking, all the more so because it had followers who carried it forward. To express as fully as possible the truth of its era and to remain fertile as a source of inspiration is perhaps the most that can be asked of a human work, not eternity! It was able to be a total science for a time, and then an example and an exhortation to it.

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