



## The Role of Presuppositions in the Social Sciences

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### Abstract

*Any expression of rationality is based upon premises, many of which cannot be ultimately justified. The role of these presuppositions becomes particularly important in the domains of the social sciences and the humanities. A philosophical reflection on the foundations and methodologies of these disciplines can shed valuable light on how to overcome the rigidity of many present conceptual systems in order to fully grasp the richness and complexity of human action.*

### 1. Introduction

Physics, chemistry, biology and neuroscience, together with logic and mathematics as structural foundations of their rational inquiry, represent our most powerful tools to achieve knowledge endowed with the highest degree of certitude. Nevertheless, the human mind, in its far-reaching aspiration to conquer new territories of knowledge, cannot renounce exploring the realm of the most complex objects available to our experience: the productions of the mind in the form of cultural and social institutions. It is therefore imperative to deal with the nature and scope of the social sciences.

Any attempt to approach an object, whether in the domain of the natural sciences or of the social and humanistic disciplines, always encounters a deep difficulty: the methodological perspective employed. In the case of the natural sciences, the problem, although real, is exhibited on a smaller scale. The referent is clear and explicit enough that we find plausible ways of contrasting the theoretical models that have been elaborated. If we want to explain how nature works, the limitation of our theoretical models will be reduced to the way in which they correspond to the frame of reference given by nature itself, its structure and its function. However, in the sphere of social and humanistic disciplines, the frame of reference is produced by the human being through his action. Abstracting from the historical element is then revealed to be an impossible task.

By deconstructing and reconstructing the object of study within the natural sciences, the loss of reality is minimal. Except in biology and neuroscience, where the object of study is under the constant influence of the medium and is constituted precisely in that continuous reciprocity with the ecosystem, with space and time, with the vicissitudes of history, the becoming of a material particle does not prevent us from grasping a series of basic dimensions that inevitably belong to the object. We can thus say that the human mind has managed to

elucidate the object with a degree of depth and rigor that will only be constrained by the shortcomings of our technique and the imperfections of our theoretical models.

On the contrary, when we examine any portion of human reality, any production of the spirit or any work of civilization, historicity becomes a defining characteristic. By germinating from individual intentions and their insertion in collective networks, man's creations are not easily subsumed into theoretical models. There is no key frame of reference that has the last word for determining the validity of a theory.

However, it would be naïve and futile to limit oneself to proposing mere interpretations capable of shedding light on the objects of the human world. Hermeneutics offers valuable and instructive tools, but the study of the human being does not have to yield to an interminable rhapsody of interpretations. Interpreting and explaining need not be contemplated as inevitably contradictory and irreconcilable methodologies (as Dilthey did in his rigid distinction between *verstehen* and *erklären*), because they have to be complemented in every field of knowledge.

## 2. Social Sciences, Conceptual Systems, and Human Rationality

Any progress in the refinement of our conceptual systems gradually leads to a new conceptual system which, although imperfect and fragmentary, is remarkably close to reality. In the case of the humanities and the social sciences, this approach consists of the cultivation of theoretical frameworks and empirical techniques capable of assimilating a greater number of phenomena and a greater range of relevant perspectives. Just as the researcher may feel indebted to Marx's work on the influence of social status on the mode of thought, but without admitting his entire system and his vision of historical evolution, a deeper conceptual framework, more versatile and blessed with higher explanatory power, will be able to conquer higher levels of extension and intensity.

The criterion of parsimony does not have to be applied here. The lack of necessary laws beyond biological and social conditioning (human will being a law in itself) turns the multiplicity of perspectives and the breadth of the principles into extremely relevant factors, which cannot be disdained for the sake of the economy, condensed into the famous Ockham's Razor. If in the natural sciences the basic criterion is that of extension (that is, the number of phenomena explained by a given law), in the social and humanistic disciplines it is essential to pay attention to the intensity of the model. There is no point in creating false expectations about a single law suitable for explaining everything, because each object of study arises as its own law: every period, every civilization...; each individual, in short. We would never complete the scientific discourse in these matters without exhausting all the manifestations of the individuality, the contingency, the historicity that mold human realities. Such a goal would not only be unavailable but also unreasonable, as it would imply reproducing everything that man has done, thought and desired throughout the centuries. Yet what is important is to identify the guiding principles that, in the course of history, have determined the events on a large scale.

The presupposition from which this perspective emanates refers to the rationality of human action, to the idea that there is a logic whose articulation gives coherence to historical events. It is evident that this presupposition is incomplete, because not everything that has happened has always emerged as the unmistakable fruit of rationality, pure and limpid, devoid of the intrusions generated by arbitrary or relentless contingency. Will and chance have played a role of equal or greater explanatory significance. However, we can hope that the combination of three great methodologies will propitiate a framework *that tends to* completeness in the study of the human being and his productions. The first methodology will

be devoted to examining the logic of history, its insertion into rational patterns, into clearly discernible economic, social and technological factors; the second will concentrate its efforts on clarifying the motivations that govern human psychology, on the burdens that weigh on it, on the limits that surround rationality, on the unavoidable blueprint of emotions, on the genesis of desires, on the beautiful arbitrariness which moves the will; the third will seek to understand the contingencies that so often determine the course of humanity, but which can often be encompassed into basic and reiterated typologies.

Human knowledge has advanced by leaps and bounds in these three areas. Today we accumulate an extraordinary amount of data on the history of the economy, social organizations, technology and knowledge. At the same time, our understanding of the human mind has also progressed incontestably, and the detailed description of historical events provides us with an invaluable perspective for weighing the different causal elements that concur in a specific fact.

A science absolutely devoid of prejudice would never be feasible, because the human intellectual enterprise is guided by at least one presupposition: that of the intelligibility of the world. It gives us the hope that our mind will always be able to access increasingly hidden spaces of the universe, in a potentially infinite, exhausting but rewarding career. Fortunately, this presupposition is minimal, which does not really affect significantly the development of scientific activity. The fact that science itself has gained consciousness of the limits of human knowledge represents a relevant argument in favor of its infinite elasticity and its almost unrestricted permeability to the stimuli that come from the world.

The situation that we contemplate in the social and humanistic disciplines is completely different from the scenario that presides over the natural sciences. In social studies, the power of prejudices is of the highest importance. Yet although its shadow can never be completely dissipated, we must convince ourselves that the progress of these branches of knowledge cannot be based upon the absolute eradication of prejudices but on their insertion into broader frameworks that explain and interpret human phenomena. Beyond the traditional distinction between explaining and understanding, all scientific work, natural or social, aims to identify the great patterns of behavior that prevail in the different domains of reality. For example, by founding his analysis upon primary concepts like social class, conflict and socio-economic

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system, Marx thought that he had discovered a fundamental law: conflicts between the classes that form a certain social and economic system inexorably generate historical change.

Today, the aspiration to identify a single law that rules the destinies of history is utopian. Not even thermodynamics can be unified into a single law (the so-called “theories of everything” seem to look for an *Urgesetz*, but it remains unknown, and it is possible that it may be unattainable).<sup>\*</sup> It is more useful to speak in terms of the forces that prevail in each level of cultural development. And the different levels can be measured in accordance with the quantity and quality of the information managed by a certain culture (that is to say, in accordance with the *knowledge* accumulated by a certain culture). Hence, human history can be regarded as the gradual discovery of rationality in its different manifestations.

Human behavior is unquestionably more complex than the behavior of any object in physics and chemistry, but it nonetheless remains a perceptible phenomenon that responds to causes and produces effects. In order to understand the behavior of an electron, it is not necessary to use an “intensive” method meant to penetrate the interior of the object, since this inner dimension does not exist. As we rise on the phylogenetic scale, interiority dawns in increasingly higher degrees, and the scientist cannot but recognize that inner world which defines the realm of life and which shines with its own light in the *Homo sapiens*. Understanding human behavior therefore requires a detailed examination of its interiority, its psychology, the functioning of mind, the amalgamation of reasons, desires, emotions and stimuli that shape it. But, whether explanatory or interpretive, every discourse of reason that strives to adapt itself to reality does nothing but to integrate the particular into the universal. There are neither infinite modalities of conduct nor infinite modalities of production or social organization; also, there is no infinite number of laws that govern the movement of the different strata of physical reality. While we lack a unified theory of physical nature, we have strong reasons to believe that the number of primitive laws is relatively small. Every scientific discourse always aspires to find the premises and rules of transformation that underlie a specific phenomenon of the world. To connect the particular and the universal is the goal of every explanation and every interpretation.

It is undeniable that every form of conscious knowledge is always indirect. The mediation of the senses represents the principal channel through which we access the external world. With the exception of the pure creations of mind, such as logic and mathematics, as well as certain philosophical propositions justified by virtue of the very exercise of self-consciousness (St. Augustine’s *si enim fallor, sum* and Descartes’ *cogito, ergo sum* give us

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<sup>\*</sup> The first reason is that our knowledge of nature is always constrained. For example, until the 20<sup>th</sup> century, physicists thought that two fundamental forces sufficed to explain material processes. Today, we are aware of the necessity of at least four fundamental forces to understand the universe. The second reason points to the limits in our capacity to know and think that have been discovered by science itself. The two fundamental borders for our knowledge are Gödel’s incompleteness theorems and Heisenberg’s Uncertainty Principle. The first raises an analytic limit, referred to the inner structure of logical thinking, while the second poses a synthetic barrier to knowledge. Any law of nature establishes a type of behavior in material entities that concomitantly poses an epistemic limit. For example, the law of the constancy of the speed of light in vacuo defines a fixed, finite quantity for the displacement of a ray of light in vacuum. It is therefore impossible to know anything instantaneously, and absolute simultaneity is unachievable for our mind. However, the most distinctive feature of the Uncertainty Principle resides in its direct epistemological content: it immediately refers to a limit in human knowledge, because this law of nature concerns a potential observer that aims to measure simultaneously two canonically conjugated variables. It is inevitable to speculate whether a much superior mind would be subject to Gödel’s prohibition or to Heisenberg’s restriction. Would a divine-like entity find its knowledge restricted by these boundaries, or would it be blessed with some sort of “higher rationality”, capable of avoiding Gödel’s theorems, and with a deeper understanding of nature, capable of surmounting Heisenberg’s indeterminacy? We do not know, and we do not know whether we will ever be able to answer this question. In any case, logical and physical evidence underlines the existence of at least two fundamental limits of human knowledge.

the best examples), in all knowledge ordered to effectively represent reality it is inevitable to employ mediations. Both the linguistic sign and the mental image seek to code, in channels imbued with a certain degree of permanence, the multiplicity of an inherently heterogeneous and mutable reality. In such symbolic structures it is possible to record the thoughts dealing with realities that are external to the mind. Thanks to the art of combination, through a reduced number of linguistic signs and mental images we are able to generate a potentially infinite number of propositions reflecting, in higher levels of fidelity and attunement, the features of the world.

Through thinking, the human mind is capable of multiplying and distributing regardless of the constraints of space and time (as the classical dictum states: “*natura ad unum, ratio ad opposita*”). This power stems from the possibility of establishing a dichotomy between object and subject, because the mind is able to multiply reality, whereas unconscious beings are strongly determined by the specificities of the stimuli and their own situation. The ability to detach itself from the object (“to objectify”) is particularly fertile at categorizing, at finding “types” and models, but in examining the subjective life, if we restrain our activity to objectifying, we lose reality. For example, in biology it is very difficult to find general laws (not even Mendel’s laws are absolutely universal). This fatality obeys the increasing complexity of biological entities, in which there is an “underdetermined” relation (a “degenerate system” in the sense that the same goal can be reached through different ways, adding uniqueness and singularity to the process) between the general law and the entity that falls under its domain. We can fulfil the laws of physics through different ways, and this possibility allows us to develop a vast and exuberant world of identity and subjectivity that, without contradicting the fundamental laws of nature, nonetheless builds “its own world”, with its own “laws” (aspirations, character, rationality...). Thus, it is feasible to multiply the variability almost exponentially, and it is perhaps here where intuitive thinking and “intellectual empathy” become more important. Culture is a new world of its own, with laws rooted in human will, creativity and adaptability. It is the noblest fruit of our symbolic capacities, and the symbol precisely consists of the power to make humans detach themselves from a fixed paradigm in order to establish new, imaginative connections, thereby expanding the scope of rationality.

Although we can never draw a 1:1 scale map,\* science and thought progressively lead us to a finer awareness of the elements that vertebrate the world. This increasing degree of consciousness also implies a greater deepening into ourselves, into our own consciousness and into the elasticity of human imagination. The consequence is clear: knowledge of the external can admirably confluence with the knowledge of oneself, the task to which we are exhorted by the famous imperative of the Oracle of Delphi.

From this perspective, all knowledge is constructive. Data of the external and internal experience are purged by symbolic imagination, language and the presuppositions of logic, which articulate the information in an increasingly sophisticated architecture. Inevitably, the human being must separate himself from reality in order to rationally access it. Therefore, we always have to lose elements of reality, for example the instantaneity in which many

\* This attempt would itself be a vain and distorting project, because it would prevent us from thinking: it would frustrate any attempt to distance ourselves from the world in order to scrutinize, question and transform it creatively.

phenomena manifest themselves. As soon as we intend to capture some parcels of reality, these have already undergone alterations, and we never apprehend exactly the same state of the world that we attempt to elucidate.

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*“Each act of analysis requires a parallel synthetic attempt, susceptible to closing the circle of a reality that is neither analytic nor synthetic, but unitary.”*

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Instead of discouraging us, this inexorable gap between the mind and the world should infuse us with a feeling of deep humility before the vastness and richness of the universe and the limitations of the human mind. It should also invite us to explore all the options available to channel the impulses of thought.

### 3. From Analysis to Synthesis

The analytic method (which can be called “*la méthode de résolution*”)<sup>1</sup> offers unmatched results in the detailed study of the elements of reality. However, analytic thinking is unable to deal on its own with the highest complexities of the world. After decomposing reality, we need to “recompose” it. The whole adds new information to the data contained in the parts, as a result of the interactions and environmental relations established between the parts. Therefore, the truth about the parts is different from the truth about the whole, given that the truth about the whole may need to consider the compatibilities and incompatibilities between the parts, the importance of their reciprocities... Just as in thinking we always need a proposition (a premise) and a rule of transformation, in dealing with reality we have to pay attention to both the parts (“the objects that fall under a certain function or domain”) and the system in which they are integrated through a set of relations (“the functional, operative rules”).

Of course, analytic thinking is confronted with a pressing paradox: in its pursuit of the most basic components of reality, it is always haunted by the specter of a *petitio principii*, because it can never attain the absolute certainty that these elements represent genuine atoms, ultimate and undivided as Leibniz’s monads. Moreover, when it comes to examining their relations, the ruling laws of the cosmos, the large-scale processes of nature and history, it is not enough to dissect the object into its parts. Rather, it is necessary to reconstruct and unveil the connections that link these atoms together in larger structures. The analytic impulse behind some of our greatest intellectual achievements cannot aspire to standardize a heterogeneous reality full of differences and particularities. It cannot rely on fragmentation, reductionism and the configuration of models which, in the long run, are divorced from the reality towards which the noblest efforts of human knowledge are directed.<sup>2</sup> But the mind cannot place its hopes in a quick form of holism, intoxicated by speculative delusions and false explanatory promises which, for the sake of integration, neglect the details and darken the actual functioning of a world that is exquisitely sustained on individual elements, whose constraints cannot be ignored.

Analytic and synthetic strategies must complement each other adequately. Each one must be aware of its assumptions, of its premises and boundaries. However, this task cannot be accomplished *a posteriori*, because we do not know the limits of a certain methodology until we have stumbled upon an insurmountable barrier. To immerse oneself in the study of the parts can lead to the knowledge of the totality, and each act of deconstruction ends in a process of reconstruction. Our intellectual enterprise does not have to resign itself to offer, on the one hand, meticulous descriptions of reality that overwhelm us with minute details, and to paint, on the other hand, the great canvas of general principles practically dissociated from the real elements that arm reality. Each act of analysis requires a parallel synthetic attempt, susceptible to closing the circle of a reality that is neither analytic nor synthetic, but unitary.

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The analytic method has produced many conspicuous fruits in the study of the constituents of reality. In our time, its fervor coexists with a no less passionate synthetic project. Its benefits start to be appreciated in areas such as ecological thinking, the sciences of complexity and the theory of information. The social and humanistic disciplines would fall into a false dilemma if they felt obliged to choose between analysis and synthesis. Knowing the smallest details is essential for a rigorous study of reality. However, the quest for the great tendencies and the guiding principles not only brings amplitude to the analytic stage, but obeys the very nature of a reality that, constructed on atomic elements, on bricks susceptible to a diaphanous delimitation, owns an architecture, a conformation, a qualitative disposition that organizes it inexcusably. All great science requires a synthesis, an integrative strategy that links the parts according to laws. As Descartes did, it is necessary to embark on the analysis and then proceed with the reconstruction.

Science does not progress through the mere accumulation of facts. It is fermented by the conceptual exploration of that which has not yet fallen under the domain of empirical confirmation. The most creative minds have been able to rise above the forests of evidence, perched on deep and innovative intuitions, not always immediately verifiable, to contemplate what did not seem to exist. Stung by imperfections and contradictions, eager to delve into the most genuine meaning of the ideas and principles that articulate a given discourse, nonconformists with the generally accepted presuppositions, they have not ceased in the effort to reconcile the opposite, to perceive the imperceptible and to examine discarded or neglected options. They have always been guided by the compass of truth, that is, of the greater conformity between an infinitely malleable thought and a potentially inexhaustible reality.

In any case, we can realize that by subsuming individuality into generality we can violate reality itself, causing a loss of information that may seriously compromise the most legitimate goals of knowledge. However, indulging in the heterogeneity of the real, without seeking to discern unifying principles, would curtail the human longing for knowledge. Consequently,

we must take the greatest possible degree of consciousness about the cognitive and emotional constructions of which we are participants, but without engulfing ourselves in despair and despondency, because the human being can always transform the conditions given by nature or created by ourselves.

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All veils can be torn by a reason whose capacity for openness to reality and questioning of itself is, for practical purposes, infinite. No mirage, no illusion, no spell wrought by the Maya goddess holds the last word. Reason can always override any previously erected frontiers and venture to explore virgin territories of the human spirit. However arduous it may seem to cross the porticoes that divide reality and our construction of reality, we have the best known instrument to free ourselves from any determination and to break all the chains of thought and action: rationality. Within this framework, truth is outlined as an asymptotic boundary, although we must not desist in our endeavor to seek it. We can always add more truths to the temple of knowledge, potentially infinite, but impeccably real. No universe of meaning carved by man is ineluctable. It is always plastic and perfectible.

It is easy for a frame of reference, for a conceptual system with rigid principles and considerable explanatory breadth, to succumb to a feeling of arrogance about its achievements. But it is important to notice that many conceptual systems of the past were believed to possess full explanatory powers. Who could have convinced the Aristotelian philosophers of the Middle Ages and early modern period that the physics of the Stagirite, idolatrized by the Scholastics and brimming with all kinds of philosophical epicycles, did not really explain the fundamental processes of reality? Despite its teleologies, elements and embellishing substantial forms, the miracle of reducing everything to principles of metaphysical intelligibility was proved to be largely erroneous.

To widen the circle of our thinking and our imagination implies, above all, to expand the radius of the possibilities of our mind. It is a gift and not a punishment. Anything that contributes to stimulate the mind, to awaken it to that beautiful state of luminosity that the Japanese tradition calls *satori*, should be welcomed. Enthusiasm is constantly needed, because reason does not cross the skies of knowledge with its own wings, but is driven by emotions and commitments, by attachments and desires, by pre-rational phenomena that, paradoxically, unleash the wonder of rationality.

As with any great human enterprise, significant advances in the field of thinking only happen when the protagonist has been able to internalize a difficult mix of ambition, concentration, courage, perseverance and strength to overcome the inherited opinions. Stigmatized



by all sorts of inertias, concepts, theories, information, publications, teachings, schools... we can feel uncomfortable, and we can even renounce examining the questions in themselves; not as embedded in dense and entangled networks of philosophical doctrines, but as universal problems that call upon any mind longing for truth, rigor and the exchange of ideas. Respect for the eminent authors of the past is praiseworthy, but it paralyzes the spirit if it becomes a dogmatic attachment that blinds us to the contemplation of the world and the realities that we seek to elucidate.

Of course, philosophical thought will never obtain the clarity that shines in many mathematical statements, because its frame of reference cannot be fixed with such a degree of certainty. Nevertheless, it is always fruitful to assume healthy doses of the discipline, precision and passion for truth that prevail in mathematics. Arguments must be studied and valued irrespective of who proposed them and when and how they were proposed, and the honest contrast between hypothesis and reality—the key to scientific success—must immunize us from the temptation to enthrone our subjective preferences.

This observation is not an obstacle to emphasize the creative dimension of philosophical thought, which, far from limiting itself to explaining what is given, also ventures into prophesy, into imagining the future, into exhorting humanity and reason to follow one path instead of another. But creation only becomes truly profitable when it is based on rationally justified reflections, on evidences and not on arbitrariness, because this process paves the path to the universal. Beyond schools and burdensome traditions, the grandeur and beauty of certain philosophical questions must shine forth, beyond obscure dogmatisms and hoarding drives.

Today more than ever, the amount of knowledge accumulated by humanity requires an interdisciplinary treatment, because the complexity of some problems makes it impossible to approach them from a single perspective. Many of these problems are not the patrimony of a concrete province of knowledge. The compartmentalization of knowledge is due to strictly practical motives, not to any irrevocable, aprioristic law. The world is unitary: from the subatomic particles to the most sublime works of the human spirit, in all it is possible to perceive a fabulous thread that links the tiny and the colossal, unified by the very laws of nature and participant in the same logical, physical, chemical and biological scenario. It would be negligent for the physicist to despise the help of the philosopher, or for the philosopher to forget the discoveries of the natural sciences for—theoretically—failing to reveal a hypothetical and hidden metaphysical essence which he has idolized. Similarly, the challenges of humanity grant us a vivid proof of the urgency of taking an interdisciplinary approach, where the natural sciences, the social disciplines and the humanities are not entrenched in their respective methodological frameworks, but show boldness to understand each other and give each other valuable ideas.

Knowledge not only stems from the discovery of that which appears before us, but from the imagination of what has not yet been given. There is no real progress in any domain of science without acquiring consciousness of the provisional nature of knowledge and the

imperative to increase our present understanding. To know is to identify, but it is also to imagine and explore that which has not yet appeared, but may arise in the future, or that which does not spring from the work of nature, but the work of man.

Science should not fear intuition and imagination, but rather realize its extraordinary potential to multiply knowledge and help us abandon incomplete paradigms. The recognition of the present structures, of the testable patterns, of the available evidence, is not incompatible with the fruitful lucubration about what we still ignore or what has not yet been given to us. Logic leads us to follow a linear, sequential, diaphanously marked path. However, in order to create, it is necessary to look for parallel paths, unforeseen analogies, discontinuous leaps which will later be subjected to the demands of the most scrupulous logical canons, even if they were initially born from the spontaneous grasping of the absent.

Ultimately, it is true that there is only *one* form of rationality in its strictest and most powerful sense, but in practice, the faculties of the human mind function as if we enjoyed different kinds of rationality which, in the course of an uninterrupted struggle, propitiate the magic of creativity, the bursting of an unpredicted novelty. There is rationality in many emotions, and in many intuitions, and in many actions that have not been unleashed by a process of crystalline rational deliberation, although in the long run lead human consciousness through the most transparent of rational itineraries. Therefore, art and science are not as distant as we might think at first glance, but art shines as the best ally of science, as the way to channel deep and powerful intuitions whose expressivity not only inspires the scientist, the human being who struggles to unravel the laws of the universe, but, happily liberated from the onerous holdings of pure rationality, dares to ponder other scenarios, other ideas and other ways of reconciling the seemingly incompatible. Instead of interpreting ambiguities, conflicts and uncertainties as hostile phenomena whose darkness hinders the conquest of full knowledge, we must see them as stimuli that propel the mind into new conceptual territories.

The ambiguity of any frame of reference is not necessarily negative. It can actually encourage the search for ever more perfect and deep systems. The very essence of creativity is based on ambiguity and paradox, because the new is never automatically inferred from the old. The different itineraries that the creative mind could have followed are not unambiguous, devoid of the beautiful and powerful manifestation of the unconscious, the intuitive and the emotional. In addition, every conceptual system is composed of subsystems, of subsets associated with their own presuppositions.<sup>3,4</sup> Collisions often occur between these subsystems, and violent eruptions emerge within conceptual systems and frames of reference. The ultimate criterion that determines the validity of a system can be no other than that of its openness to reality, that of the strength and economy of its principles and that of its flexibility to account for new phenomena.

We are condemned to coexist with presuppositions and conceptual systems, but we are also called to rebel against them as soon as they show the slightest hint of imperfection and incompleteness. To abandon any system of concepts and representations would lead us to a no man's land, an abyssal gorge, a nihilistic and discouraging silence. Our inability to find the absolute foundation, the system of all systems, the *forma formarum*, the ultimate

law that governs and binds everything, not only strengthens the awareness of our limits and allows us to journey through beautiful and unsuspected scenarios (as the study of the limits of our logical and physical knowledge), flanked by unpredicted boundaries, but gives us an unrestricted and continuous possibility of overcoming and searching. Like Hegel, we will always seek the system of systems, a system blessed with infinite degrees of freedom and able to cover every need, every reality and every possibility. In this incessant expansion of boundaries and frontiers, it is worth noting that, just as the finite does not become dissolved into the infinite,\* deprived of its identity, phagocytized by the unsearchable, it is possible to preserve the reality of the finite in the midst of an infinite concatenation of processes, because the value of a single truth crowned by the human mind does not pale before the potentially infinite scope of our intellectual enterprise.

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## Notes

1. Antoine Arnauld and Pierre Nicole, *La Logique, ou, L'art de penser* (Paris: Flammarion, 1970), 368.
2. Garry Jacobs, "Limits to Rationality and the Boundaries of Perception," *Eruditio* 1, no. 2 (2013): 108-118.
3. William Byers, *The Blind Spot: Science and the Crisis of Uncertainty* (Princeton: Princeton University Press, 2011).
4. William Byers, *Deep Thinking: What Mathematics Can Teach Us About the Mind* (New Jersey: World Scientific, 2015).

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\* A useful example of this scenario is given by Cantor's theory, which proves that it is possible to have numerable infinite sets (such that, in spite of finding an infinite number of elements in the set, each element can be numerated instead of becoming diluted).