

REGULÆ

WIM VAN DEN DUNGEN

Regulæ

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As an intelligent and efficient assistant lacking human whims, **ChatGPT-4o** delivered actionable content and acted as a reliable co-pilot, demonstrating the great benefits of teamwork between human intelligence and **AI**.

en hommage à René Descartes

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(...) whoever adopts the rationalist attitude does so because he has adopted, (...) some proposal, or decision, or belief, or behaviour ; an adoption which may be called 'irrational' (...), we may describe it as an irrational *faith in reason*.

Popper, K.R. : *The Open Society and its Enemies*, 1994, p. 436.

Rationality is not something accepted or rejected in an irrational act at a particular moment, but something that is 'always already' there. The basic norms of knowledge can only be made explicit afterwards in reflection. Since these basic norms are non-justifiable, 'always already' operative norms, the apparent dilemma of a 'metaphysical versus decisionist theory of knowledge' can be rejected in favor of a normative and reflexive theory of knowledge. We may call the normative ground structure of knowledge with Kant, and following the critical reconstruction, as given by Habermas and especially Apel, a 'Factum of Reason.'

Oger, E. : *Kennis en Waarheid*, 1976, p.297, my translation.

Preface

As a twenty-year-old student fascinated by Hegel's *Phänomenologie des Geistes* (1807), I found the progression of consciousness through the dialectical process of thesis, antithesis, and synthesis –culminating in absolute knowledge– to be bold, comprehensive, and appealing. However, I began to wonder if the vastness of Hegel's idealistic vision did not hide its shortcomings. Did he not revert to an uncritical, pre-Kantian view of reason, overstating the ability to arrive at absolute conceptual clarity? My understanding of this grew stronger after reading Kant's work on the ontological illusion. My Hegelian intentions were shattered when I encountered a bright neo-Kantian challenging my naive realism.

Honi soit qui mal y pense!

Erik Oger (1943 – 2021), a Belgian philosopher, explained why any discourse on fundamental rules is self-contradictory if it attempts to surpass the necessary boundaries of the conceptual mind. His early work focused on the logical and epistemological problems resulting from antinomic answers to the possibility of valid conceptual knowledge. He sought to guarantee the possibility of (conceptual, scientific, and philosophical) expertise and explain how it can be advanced. He inspired me to pursue a coherent *critical* system of rules, highlighting the limits to which conceptual thought is necessarily bound. These rules cover truth, beauty, and love.

Inspired by Kant's *Was kann ich wissen?*, Oger's critical epistemology asks: *How is knowledge and its advance possible?* The tendency to seek an underlying *self-sufficient ground* to justify conceptual knowledge *outside* knowledge, thereby positioning ontology (how things are) *before* epistemology (how things are known), is revealed to be inconsistent and vain, leading to a monstrous reason, hindering the development of science and philosophy. Such an intellect spoils both realism (empiricism) and idealism (rationalism), shaping an antinomy only superseded through criticism, thereby overcoming the 'crisis' identified by Husserl (1859 – 1938) in *The Crisis of European Sciences and Transcendental Phenomenology* (1936). Realism without an active, participating subject of knowledge is rejected, as is idealism without external factuality. The possibility of knowledge should be based on the 'groundless ground' of knowledge itself (Oger) rather than on something external to knowledge, which is, by definition, not knowledge at all.

Uncovering the snags that stem from being misled by the deceptions caused by ontological illusion acts as the *basso ostinato* of the present work. The outcome is *not* a contemporary version of skepticism, like another take on postmodern deconstruction. The latter will be avoided by laying bare the *irrefutable* rules (principles, norms, and maxims) for acquiring valid conceptual knowledge (truth), experiencing aesthetic sublimity (beauty), and acting compassionately (fairness). Criticism may be branded as hyper-modernist.

The present take seeks the middle ground by avoiding dogmatism (the absolute yes of positivist modernism, both materialist and mentalist) and skepticism (the absolute no of postmodernism, relativism, and strict perspectivism). Yes, valid conceptual knowledge is possible but *never final* ; it is *fallible* and *conventional*. The propositions of science are empirico-formal and always *pro tem*. The statements of metaphysics are arguable and never testable, but they take their lead from science. Given the relativity of conceptuality, absolute statements of fact cannot be hit upon through reason. In this way, the latter's scope is curtailed, but what is left is a theory of knowledge devoid of contradictions.

The *hubris* of the past is overturned.

Insofar as the attack was not on reason itself (announcing irrationalism), the postmodern critique of absolute knowledge was valid. Absolute conceptual knowledge *à la Hegel* is a fiction of the mind seeking what cannot be spotted, trying to put into concepts *what they can never hold*. A humble view of science and philosophy unfolds. But this does not lead to 'anything goes' (Feyerabend) or to a protest philosophy denying reason, even when restrained by criticism, its decisive place. There are irrefutable norms in epistemology, aesthetics, and ethics, albeit limited and conditional. The kernel of the activity is to maintain awareness of the *boundaries* that science and philosophy should not cross. Hence, a set of essential demarcations has to be put in place.

Criticism distinguishes valid and invalid conceptual knowledge, science from metaphysics, and immanent from transcendent metaphysics. It steers between dogma (affirming propositions *ad hoc*) and skepsis (negating the worth of propositional knowledge). Because transcendental analysis does identify *a priori* principles and norms of knowledge, one cannot say, as absolute relativism does, that concepts can never be absolute. The principles (of transcendental logic) and the norms (of theoretical epistemology) refer to a few transcendental certainties hinged on the irrefutable *factum rationis* or fact of reason and the logic it entails.

Skepticism is challenged, though not with a sense of triumph.

As conceptual knowledge always co-depends on theoretical connotations and constructions on the side of the knower, dogmatic adherence to the idea that the mind is passive and only receptive (Locke, Hume) conflicts with transcendental logic and facts of experimental psychology (confirming the *theory-ladenness of observation*). All knowledge, whether derived from analytic fields such as logic and mathematics or synthetic fields such as (testable) science and (arguable) descriptive philosophy, is always based on a *series of conventions* and a set of intersubjective agreements formed *before* or *after the fact*. This is typically based on *opportunistic* logic.

Dogmatism is overturned, though not without clinging to non-contradiction.

It took me a few years to understand that epistemology can be divided into three main areas: logic (along with its *principles*), the theory of knowledge (and its

norms), and applied epistemology (along with its *maxims*). Later, I also recognized the normative foundations of aesthetics and ethics, which led me to elaborate a three-fold set of rules. Criticism also aligns with strict nominalism.

Like Ockam, it rejects any notion of words being more than conventional ways to communicate usage (pragmatism). Accidents have no ontological status of their own. They do not refer to themselves, nor possess ipseity, an ‘itself,’ but directly signify the object involved. They merely, as ‘*flatus voci*,’ represent the things they denote, nothing more. No ‘beingness’ is added to them. Only logical and functional instantiation define them. The meaning of a word is thus not rooted in reality outside it (as the Medieval realists would claim – cf. *infra*) but is merely its use (Wittgenstein). This joins the rejection of any self-existing ground. The normative disciplines (epistemology, aesthetics, and ethics) do not need one (in fact, try to remain far away from any self-sustaining foundation), and traditional metaphysics becomes self-contradictory each time it speculates about or is based on such an absolute referent deemed to exist from its own side.

“Popper and Habermas give (schematically stated) opposite answers to the question of the constitutive conditions for the possibility of knowledge. The scandal of this antinomy jerked us out of our dogmatic (‘transcendental’) sleep. The antinomy can be interpreted as a symptom of a transgression of the limits of knowledge : the doctrine of knowledge becomes the *doctrine of being*. Knowledge becomes grounded in being : either in a ‘reality in itself’ (realism) or the human species as a transcendental subject (transcendental philosophy). (...) Instead of understanding being as the ground of knowledge by assigning it a constitutive function, being as an idea (to which no object corresponds) can fulfill a crucial *regulative* function for our knowledge. An ontological theory of knowledge must give way to a normative theory. (...) An *ontological archaeology of knowledge*, which seeks to indicate side grounds for these norms, falls not only into a ‘*naturalistic fallacy*’ already explicated by Hume and Moore – the deduction of normative statements from side statements – but also into a ‘*hysteron proteron*’ reasoning : that which should function as the ground of these norms is indicated in a knowledge in which these norms are already operative. An *ontological teleology of knowledge*, which holds that that to which the regulative principles are directed is a given reality, turns these regulative principles into constitutive ones.” – Oger, E. : *Kennis en Waarheid*, 1976, pp.11-12, and p.296, my translation (the necessity here is not ontological or empirical but reflexively deduced from the impossibility of coherent conceptual activity without these norms).

This work is divided into three sections.

In the first, on truth, we focus on discovering and validating formal-empirical statements. A set of rules organizes the transcendental, theoretical, and applied aspects of epistemology. Through transcendental analysis and synthesis, we explore how conceptual knowledge is possible and how it can be further developed. In the second, on beauty, the conditions for considering something

beautiful are outlined. In the third section, on goodness, we study action. What are the rules for good, just, fair, and loving conduct ?

The reader is cautioned that *Regulae* consists of three sections that together create a cohesive whole. The first section is formal and abstract, focusing on truth as it relates to thought. As the text progresses, it gradually loosens its formal constraints, introducing the intentionality of consciousness in the second section, which addresses beauty rooted in feeling. Finally, the third section explores the historical, social, and class dynamics, discussing love as it is grounded in action.

Section I is the most formal, stringent, and normative ; it is somewhat inert. It seems as if the principles and norms advanced float mid-air and do not take into account crucial factors such as the historical context and the intentionality of consciousness. But this absence of historical context and social practice is deliberate. Doing so underlines that the edifice of the principles and norms of truth is wholly derived from a self-critique that reflexively unearths them in the actual practice of acquiring knowledge that has been going on even before we reflect on them. There is not much ontological depth, historical context, or dynamism here. The subject of knowledge is thus also treated foremost procedurally.

Section II's transcendental logic is more flexible than the principles of thought presented in Section I, which focus on the 'fact of reason.' In this section, we turn our attention to the 'fact of feeling,' prompting us to reconsider the relationship between perception and sensation. Additionally, we must explore the intentionality of the subject, examining its constitution and historical significance within the context of a living reality. Here, the subject as an agent becomes prominent. It should be noted that the constitution of the ego has previously been addressed in other books like *In Togetherness* (2018), *No Ego No Demons* (2022), and *Existence and Choice* (2023).

The absence of metaphysics in Section I will be complemented by advancing an immanent process metaphysics to grasp the aesthetic processes of aesthetic attitude and aesthetic properties. It then becomes clear that the 'fact of reason' relies on formal conditions of (a)symmetry that will come to define (dis)harmony, the heart of beauty ; the process ontology suggested anticipates this. The outline of this ontology has been sketched in *Critique of a Metaphysics of Process* (2021) and *Lemmas* (2021).

In Section II, the concept of 'fact of action' prompts a reevaluation of freedom and an exploration of the principles of action. At this stage, ideas such as class dynamism (Marx), facticity (Sartre), and existential choice emerge. Since freedom is essential to making choices, it brings to light existential factors, as well as the need to reconsider concepts of goodness, justice, fairness, and love.

Many of the valid critiques of Section I will be addressed in the following sections. The strict approach to truth will gradually relax in the realm of aesthetics, shifting towards a balance between intent, duty, vocation, and conscience.

Introduction

Understanding how knowledge is possible and moving forward has been a long and challenging journey. Western philosophy took thousands of years to recognize that conceptual, rational access to reality is *not* straightforward, if possible. This period approximately begins with classical Greek philosophy and concludes with Kant. Those reverting to a pre-critical stance, such as German idealism, Marxism, positivism, materialism, logical positivism, Heideggerian phenomenology, neo-empiricism, physicalism, scientism, and instrumentalism, repeat earlier inconsistencies and cannot escape Kant's decisive critique of both dogmatism and (radical) skepticism.

The stability or closure that formal concepts provide in the knower's cognitive texture is fraught with inconsistencies as long as a worldview, an ontology, is articulated *before* exploring the limitations of discursivity. Knowledge ought to be rooted in knowledge, in the 'fact of reason,' and not in something *outside* it. We first need to know *how we know* before grasping the known and articulating propositions about it. In the Greek mentality, the mind can directly access reality's fundamental basis through the senses, the intellect, or a combination of both.

In this book, the epistemological question, known as the 'problem of knowledge,' is part of a more extensive study of the normative aspects of aesthetics and ethics. Therefore, not only is 'truth' addressed, but also 'beauty' and 'fairness.' However, these last two largely depend on the critique of knowledge, so the latter will be addressed in detail first.

Kant's three critiques encompass the central insights of early criticism. However, they still leave many problems unresolved, which will be discussed later. These up-in-the-air issues likely contributed to the rejection of his work by German Idealism and others. Nevertheless, contemporary neo-Kantians, such as Körner, argue that the fundamental principles of Kant's version of criticism can be reconstructed in a way that eliminates these snags.

In his last work, the *Opus Postumum*, Kant's views on immanent metaphysics emerged. Traditional metaphysics, which goes beyond reason, is rejected as a source of ontological illusions. However, speculation about the totality of existence is considered viable in its immanent aspect. Neo-Kantianism, Husserl's phenomenology, and prominent 20th-century advances by thinkers like Popper, Lakatos, Kuhn, Feyerabend, Habermas, Wittgenstein, and others elaborate on Kant's Copernican Turn. They cannot simply disregard the distinction between how sensory and mental objects of knowledge appear to our minds as *phenomena* and how they exist independently as *noumena*.

Scientific knowledge, which is always conventional, consists of fallible empirico-formal statements of fact (knowledge) about what is known as conceptually understood by the knower(s). Empirico-formal propositions feature dualism, variability, probability (stochasticism), and fallibility. Conceptual thought cannot

know the *underlying reality*, the things themselves, the *noumena*. Absolute conceptual knowledge is, therefore, nonexistent. Reason is not equipped to apprehend ultimate reality but is *limited* by the conceptual framework of conventional thought and the theory-ladenness of observation. The knower is not passive, merely registering, but active, and direct discursive access is blocked.

Facts are simultaneously theory-*dependent* and theory-*independent*. (*)

This leads us to the crux of the matter. Science relies on argumentation (theory-formation) and experimentation. The former is guided by the pursuit of consensus, with logic and dialogue as the rule, while the latter is guided by correspondence, with facts as the arbiter. The ability to *test* theories sets science apart from metaphysics. Speculations cannot be tested ; they can only be supported or disputed through argument. Although experimentation is a crucial aspect of scientific work, along with theory formation, science can never fully comprehend the *noumenon*. This would only be possible if conceptual thought could *directly access how things truly exist*. In that scenario, concepts would directly correspond with reality, and the meaning of concepts (semantics) would accurately reflect what exists by itself (semantic adualism). However, such simplistic ontological realism can only be consistently conceived if the knower does *not* possess any inherent mental content (Locke's *tabula rasa*), and the mind is an empty vessel to be filled by sensory experience (Hume). And we know that this assumption is self-defeating and contrafactual.

The mind has *innate structures*. Perception is not sensation. The theoretical perspectives of the knower always influence observations. This insight replaces ontological, naive realism with *critical* realism, pointing to facts as 'Janus-faced' (Oger). Facts are *theory-dependent* ; that much is clear. But no description of the noumenal realm exists. To avoid logical problems that undermine the theory of knowledge, we *must think* that facts are independent of theory. The latter requirement cannot be the outcome of observing this theory-independent face, for how could the knower step outside the knower and conceptually know whether the observed indeed corresponds to the *noumenon* ? One cannot describe what remains concealed from reason's ongoing activity. So how do we know this ? Not by description, obviously. A *normative* stance driven by logic is called upon.

We *must* suppose facts also represent reality as it is, for if we don't, facts cannot be *extra-mental* (this is not an ontological claim but a regulative assumption for consistent epistemic practice). And how can we call them 'facts' if they are generated by the mind alone ? This would lead to ontological idealism, with the mind *constituting* its objects (Hegel et al.). Sticking to naive realism and accepting the theory-ladenness of observation condemns epistemology to an *inconsistent* explanation of how knowledge is possible. Only taking a normative route avoids the crisis of realism (on the side of the known).

(*) Sentences beginning with "facts are..." or "knowledge is..." must always be qualified like "we must suppose" or "normatively assumed."

Accepting the mind's active, constructive activity may lead to the idea that the consensus between all relevant sign interpreters (scientists) regarding a given theory suffices to establish its validity (Habermas). But besides the fact that such a *consensus omnium* is rarely the case, making the truth of propositions exclusively depend on a *shared mentality* is blind to the necessary *extra-mental* features of facts. Not accepting this leads to the crisis of idealism (on the side of the knower). Ontological idealism has the opposite problems of ontological realism. This antinomy can only be resolved if a *clear distinction* is maintained.

Epistemology, aesthetics, and ethics constitute *normative* philosophy. Epistemology articulates the ultimate rules of valid or invalid conceptual knowledge implemented by science and philosophy. Aesthetics aims to understand beauty, grasping the excellent examples of harmony others may aspire to follow. Ethics focuses on fair deeds and what ought to be done. Confined by these rules, *descriptive*, speculative, or theoretical philosophy speculates about the totality of existents (immanent metaphysics) and what transcends them (transcendent metaphysics).

Add the *philosophy of practicing philosophy*, and the contemporary philosophical edifice stands out from all other sciences, establishing its domain as no less crucial than before.

Both aesthetics and ethics depend on the rules of knowledge established by epistemology, which comes first in determining the *boundaries of conceptuality*.

The first demarcation drawn is between valid and invalid empirico-formal knowledge or statements of fact, i.e., between statements that can be *tested* and held for the time being and those that cannot, or, in traditional terminology, between truth and falsehood, between what represents something that works and what doesn't.

The second distinction is between science, as the primary source of valid knowledge, and metaphysics, which serves as a speculative activity that may guide scientific inquiry. The former is testable, and the latter is not. The former informs us about the world, and the latter speculates about the totality of existence. Testability is what separates science and metaphysics. The latter may, however, be the heuristic of science, pushing thought beyond established borders and introducing new concepts that may or may not inspire new testable theories.

The third demarcation is that between valid and invalid metaphysics. The only criterion here is *arguability*, rooted in logic and the rules of discourse and argumentation. Irrational metaphysics has poor or no argument backing their propositions; therefore, such mythical and pre-rational 'speculation' is invalid. The concepts used are often unclear, ambiguous, or overly subjective.

While valuable in poetry, mythology, and artistic expressions, they do not align with the goals of theoretical philosophy. It seeks a metaphysical worldview that can be articulated in clear, stable language, allowing for discussion and revision.

Let's investigate these demarcations.

1. Normative philosophy.

Criticism plots demarcations between philosophy and science, valid and invalid propositions, science and metaphysics, and arguable and irrational metaphysics. It is not dogmatic (positing a truth without good reasons) nor skeptical (negations as dogmas in disguise). It tries to define borders, mark them, signal their presence, and designate the necessary conditions of conceptual thought, valid conceptual knowledge, beauty, and fairness. It has relinquished real or ideal concept-realism, as practiced by the Greeks (cf. *infra*), and is thoroughly nominalistic and anti-foundational, i.e., it does not seek a *self-sufficient* underlying ground of knowledge outside or inside knowledge.

Valid empirico-formal propositions are considered accurate for the time being by all concerned sign interpreters. Still, this validation or justification is only conventional and phenomenal and in no way *a priori* identical with absolute truth, namely the ultimate, *noumenal* nature of what exists. This conventional truth is established by applying the 'realism' of experimental work, listening to the 'monologue of Nature' hand in hand with the 'idealism' of theoretical work and dialogue, arguing with all concerned to reach a consensus. The monologue works with correspondence and facts. It tests and experiments. The dialogue works with consensus and arguments. It presents arguments and formulates theories. Both vectors are necessary and balanced in any critical understanding of science.

Normative philosophy, the 'hard' core of philosophy next to the (theoretical) speculations of metaphysics, uncovers a set of principles, norms, and maxims in epistemology, ethics, and aesthetics, asking :

What can I *know* ? The core of epistemology.

How may I *expect* ? The central question of aesthetics.

What ought I to *do* ? The heart of ethics.

This in-depth delving into the conditions of cognition by epistemology does not produce facts, which is the exclusive arena of the empirico-formal sciences, but generates insights into the transcendental conditions of manufacturing facts. Normative philosophy is, therefore, not a science.

Nevertheless, transcendental analysis and synthesis imply a meta-science of science, critically discovering (unearthing) the principles, norms, and maxims of possible conceptual thought and knowledge. These rules are not random and impermanent but express the regularities of conceptual thought. They are reflexively validated conditions rather than outcomes of descriptive generalizations. Because normative philosophy cannot change these self-evident discoveries, it must –saving the possibility of thought from inner conflicts–confront, without the ability to alter them, the conditions pointed out by this transcendental work. These conditions give normative philosophy the *imperatives* of the discipline. This said, note that normative philosophy is a special meta-

science, not taking part in a possible world description but actively pointing out the demarcations necessary to do so through conceptual thought. Applying these normative rules keeps the boundaries of thought intact to know the truth, sense the beautiful, and do what is fair. Insofar as this critical function is appropriately used, the need for creative, inventive speculation may rise. Then, normative philosophy organizes and channels valid (arguable) speculative creativity.

Valid metaphysics may thus be a *vitalizing heuristic* for the empirico-formal sciences dealing with facts. The latter is produced by listening to the monologue of Nature (testing) and dialoguing with all concerned sign interpreters (argumentation), i.e., conscious agents delineating states of matter sealed by regularities, conditions, and determinations (information).

Normative philosophy reflects *the necessary conditions of truth, beauty, and fairness*. This is the transcendental (not transcendent) pole of the discipline of philosophy, characterized by theory (principles and norms) and practice (maxims and the philosophy of the practice of philosophy).

Transcendental insights call for a logic of the meta-level, manifesting what has *always been done* by scientists (producing facts), artists (shaping beauty), and people of goodwill (acting with love).

2. The descriptive speculations of immanent metaphysics.

Why is there *something* rather than nothing ?

What is shared by *all* existents ?

How did *life* emerge ?

What is *consciousness* ?

Traditional philosophy aims at wisdom, revealing the true nature of reality, the essence or Being, enabling beings, and the meaning of truth. This ultimate, absolute nature of all phenomena was deemed knowable in conceptual terms, in knowledge unveiling their substantial, essential core. This heart of the matter remained identical with itself, permanent, and established its nature from its own side, independent and separate from all other substances.

A hierarchy of such substances emerged in Plato's world of ideas, with 'the good' being *summum bonum*. Indeed, the descriptive metaphysical intent of traditional philosophy was not restrained by its normative side. Moreover, ideas about the nature of reality *preceded* epistemology, rooting knowledge in a sufficient ground outside knowledge, causing '*perversa ratio*,' the perversion of reason (Kant).

Criticism corrects this mistake, so studying the totality of existence is impossible without a painstakingly careful and accurate investigation of our capacity's limitations. This thoroughness invokes the distinction between immanent and transcendent metaphysics, between (a) an arguable, untestable, totalizing picture of the world, assisted by logic and the facts produced by science, and (b) untestable and unarguable statements.

Immanent metaphysics is not scientific but *speculative* ; its results are not factual but *heuristic*, and its method is not experimental but *argumentative*.

3. The poetical speculations of transcendent metaphysics.

Immanent metaphysics targets totality, transcendent metaphysics targets *infinity*. Questions regarding the totality and infinity of things may be approached in two ways : either one takes logic, and the results of science into account, or one tries to say something about the ineffable, about which only silence is gold, and explain the totality of ‘the world’ from this ‘higher’ perspective (as in Platonism and all derived systems). The first approach is conventional and immanent, and the second is absolute and transcendent. Insofar as creative conceptual thought is used to eliminate conceptuality (as in ultimate analysis), immanent metaphysics may assist in *introducing* transcendence. It focuses on the functional interdependence of things, while transcendent metaphysics articulates their unsaying *beyond conceptualization*. Therefore, it can be nothing more than *speculative poetry*.

During his formative years, between 1619 and 1628, René Descartes (1596 – 1650) undertook a monumental task : a treatise on the correct scientific and philosophical thinking method, the *Regulae ad directionem ingenii*, or *Rules for the Direction of the Mind*. It is unfinished and reflects his early efforts to establish a systematic method for scientific and philosophical inquiry. The text contains 21 rules (of which only the first 18 are fully elaborated), aiming to guide the intellect toward a reliable understanding of truth. Despite its unfinished state, the *Regulae* offers significant insights into Descartes’ methodological and epistemological development.

Descartes wrote the *Regulae* while transitioning from a military career to a life devoted to philosophy and science. This period coincided with his travels across Europe, during which the Scholastic tradition and emerging scientific discoveries influenced him. While he reacted against the deductive logic of Aristotelian Scholasticism (taught at *La Flèche*, where Hume also studied), he retained its emphasis on *systematic reasoning*. The *Regulae* shows a debt to mathematics, as Descartes sought a method akin to mathematical precision that could be applied to all areas of knowledge.

The work was not published during Descartes’ lifetime and was rediscovered in manuscript form in 1701. It was first published posthumously in Amsterdam in 1707 by Johannes van Vloten. Although the delayed publication limited its immediate influence, it solidified its place in the intellectual legacy of Cartesian thought.

Descartes sought a universal method to ground knowledge in certainty, avoiding errors. His approach emphasized the systematic decomposition of complex

problems into simpler, more manageable parts—a precursor to the method he would formalize in *Discourse on the Method* (1637). He highlighted two cognitive operations : intuition (*intuitus*), the direct apprehension of simple truths without inference, and deduction (*deductio*), the logical inference from these simple truths to more complex knowledge. The *Regulae* insists that knowledge must be clear and distinct, foreshadowing Descartes' later epistemological principle of clarity as a criterion of truth. Mathematics is a model for his method because it relies on self-evident principles and rigorous logical reasoning.

The *Regulae* comprises a sequence of *prescriptive rules* designed to *discipline* the mind to pursue truth. It covers the scope of human intellect, the importance of methodical inquiry, the need for simplicity in problem-solving, and the reliance on intuition and deduction. Although incomplete, some aspects of his method are underdeveloped. His later works, particularly the *Meditations on First Philosophy* (1641) and *Discourse on the Method* provide more mature articulations of his epistemology.

Though overshadowed by Descartes' later works, the *Regulae* remains significant as an *intellectual laboratory* for his methodological innovations. It emphasizes Cartesian methodical doubt and foundational certainty, aiming to unify scientific and philosophical inquiry. Additionally, it rejects reliance on authority and tradition, advocating for systematic investigation. It is, therefore, a critical milestone in the evolution of modern philosophy, offering a glimpse into Descartes' development as a thinker committed to integrating *methodical rigor* and *epistemological clarity*.

The present work aims to honor Descartes' intent by presenting the rules that form the foundation of the criticism of truth, beauty, and fairness. They aim to offer a secure path away from the extremes of dogmatism, skepticism, or the permissive attitude of 'anything goes' while addressing the deficiency in critical thinking that hinders scientific progress.

The hundred rules of the *game of knowing the truth* summarize this critical position regarding the question of *how conceptual knowledge and its advancement are possible*. The language game of science seeks to gather conceptual understanding in empirico-formal propositions valid *pro tem*. It involves the crucial difference between the 'context of discovery' and the 'context of justification.' Under transcendental analysis, the language game of conceptual thought played by philosophers and scientists calls for a *normative* theory and the *concrete practice* of knowledge production (the research cell).

Analyzing this conditionality of conceptual knowledge no longer describes the process of acquiring it from the *outside*, from, as it were, the God's eye view of traditional metaphysics with default ontologies, but discovers –by way of transcendental reflection– the *rules we have always been using* to manufacture 'valid' or *justified* knowledge. These rules cannot be denied without using them in the denial (causing a performative contradiction).

The balanced middle ground between exclusive objectivity (realism) and exclusive subjectivity (idealism) is crucial for acquiring valid knowledge. Empirico-formal statements, the more humble format of Carnap's protocol sentences, are considered trustworthy, but only *for the time being*. Each imbalance between object and subject of knowledge, between realism and idealism, generates antinomies and paralogisms. Each time, for opposite reasons, this creates a reifying ontological illusion, treating mere notions, ideas, and concepts as if they were tangible objects arising from the activities on the sensitive surfaces of our five senses. Ontological realism reifies the idea of reality, the factual ; its opposite, ontological idealism, ideality, the activities and structures of the mind. These theories of knowledge lacking a subject or object are *self-refuting*.

The duality and *asymmetrical poise* between the transcendental object and the transcendental subject are evident from the beginning of all transcendental investigations of the '*factum rationis*,' whether regarding truth, beauty, or fairness. This foundational transcendental concept of balance or poise also reveals the underlying beauty in all forms, whether harmonious or disharmonious. Aesthetics starts with observation (perception and sensation) and breaking down the 'hard' and solid traits of sense and mental objects. By allowing our senses and mind to lack conceptual overlay as much as possible, we may perceive beauty and its various (dis)harmonic forms and recognize the equilibrium underlying every aspect of existence, whether material, informational, or conscious.

With truth and beauty in place, what to do ?

In ethics, the relationship between ego and alter-ego is paramount and leads to a *participatory system* of rules. As all events are interrelated, the moral issue involves answering the call of the other's existence (Levinas) by sharing fairly and participating in the welfare of *all* living beings deemed world citizens. A criticism of goodness highlights the influence of cultural norms, values, and expectations on defining what is good. The latter is relative and rooted in some actors' independence, separateness, and isolation (sovereignty). The sense of justice relies on this and should be replaced by the sense of fairness. It is argued that the conflicts arising from the challenge of balancing freedom and necessity can only be alleviated when the concept of sovereignty is expanded to encompass a sovereign planetary order. The secular, self-determining state cannot do this because it is limited by its view on what is important, placing the intent of a single state above all others. Love is the participatory harmony between all actors.

Important Note on Method :

In *Regulae*, a distinction is drawn between descriptive accounts, which explain how things appear or are reported to happen, and normative analysis, which outlines how thought ought to operate to generate valid knowledge. Phrases like "we must suppose" or "facts are," should be interpreted as guidelines for critical thought rather than as ontological statements. For further clarification, consult the *Reader's Guide* and the *Linguistic Markers of Normativity* at the end of this book.